



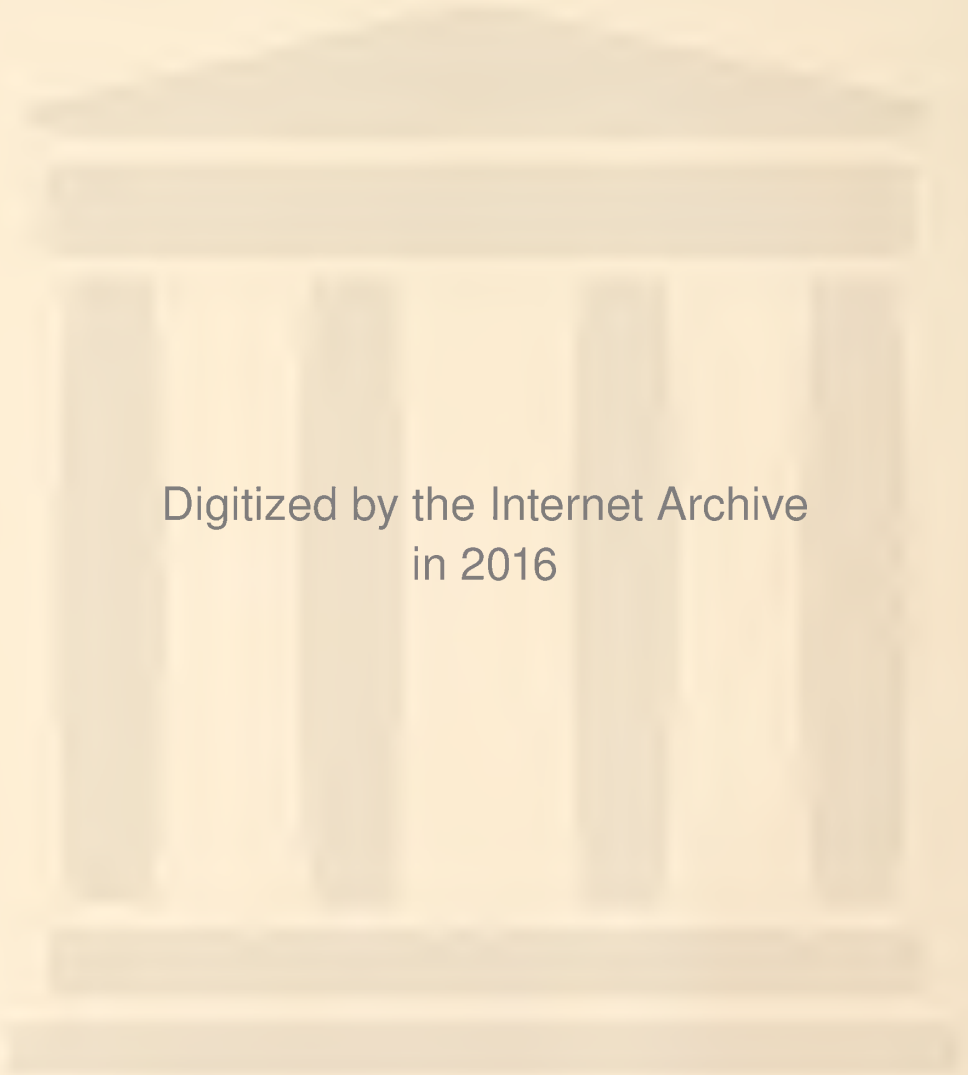
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The Wisconsin Medical Journal

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The Wisconsin Medical Journal

Volume XXIII

MILWAUKEE, JUNE, 1924

Number 1

ORIGINAL ARTICLES

HEMATURIA, ITS CAUSES AND THERAPY*

BY GIDEON TIMBERLAKE, M.D.
BALTIMORE, MARYLAND

Blood found in urine, which in yesteryears was gravely regarded and, for the most part, considered a pathognomonic sign of kidney, ureteral, bladder or urethral calculi, has now grown in importance to such a degree that, while we have not the complete pathology leading to such manifestations, its frequent occurrence from almost innumerable sources along the urogenital tract has led this worthy profession to such diligent research as to make the vast majority both diagnosable and intelligently treatable; therefore, it seems a completed mastery of the situation is near at hand.

The means, directly or indirectly, without gross surgery, of having views of bladder and urethra, those of collecting urine specimens from one or both kidneys for studies, renal functional tests, aids afforded by the roentgenologist, bio-chemist and pathologist, to say nothing of the more searching investigations by the clinicians, have almost simplified the diagnosis in all cases. However, there are such exceptions as will drive the opinionated observer to most remote corners, such, for example, as renal neoplasms. While it is true that, from clinical symptoms, functional tests and uretero-pyelograms we may conclude upon a diagnosis of hypernephroma, it is not until we have the specimen actually in hand for gross and minute studies that the diagnosis is conclusively made. In a word, it is quite as easy to diagnose a case of sarcoma of a gonad as that of hypernephroma; and while many make so bold as to declare themselves, this is not taken in light of good judgment, although such arrogance is often commended. The last word lay with the histopathologist.

This paper was not designed to present some-

*Presented at the 77th Annual Meeting of the State Medical Society of Wisconsin, Milwaukee, October 4, 1923.

thing new, but, rather, to assemble grossly some of the points which, it is hoped, will be of service to the general practitioner. It is they who most often have first call upon such cases, many of which are quite within their domain and control.

For the purpose of study, we shall first recount some of the common diseases in the urogenital tract that lie almost totally with the internist, since many of the hematurias for this domain result from constitutional diseases, such as acute general infections, Bright's diseases, cardio-vascular conditions, renal stasis, renal infarcts, Blackwater fever, leukemia, scurvy, hemophilia, purpura, parasites, hemoglobinuria, drug intoxications and yet a host of others.

Of the surgical or near surgical conditions giving rise to blood in urine are mentioned the following, and many are purposely omitted:

1. Trauma to the urinary tract, whether from without or within. This applies to injuries inflicted whether by calculi, instrumentation or foreign bodies.
2. Renal neoplasms, pelvic papilloma, varices, etc.
3. Movable kidney, which sometimes induces angulation of ureter, and in turn, hydronephrosis.
4. Pyonephrosis and pyelitis, from whatever cause, but tuberculosis especially. Focal infections.
5. Idiopathic renal hematuria, misnamed by some, "Essential Hematuria."
6. Ureteral angulation, torsion, calculus, inflammatory processes and strictures.
7. Bladder tumors, whether benign or malignant. Injury, foreign bodies, calculi, cystitis—whether acute, subacute, chronic, general; localized ulcers or papillary cystitis. The ulcers may be classified as the simple and perforating types, and there may be mentioned the "Elusive Ulcer" of Hunner; a very interesting display.
8. Benign prostatic hypertrophy and prostatic carcinoma.
9. Extremely acute anterior gonorrhoeal urethritis, some times referred to as "Russian Clap." Acute posterior urethritis and verumontanitis.
10. Urethral strictures.

1. Under trauma we have such extreme conditions of injury as to cause rupture, bleeding and shock. Many of these come from falls, crushing, stab and gunshot wounds to the kidney or bladder. If there be diversion of urine from its proper outlet along with added evidence of injury, we assume that the bladder has been ruptured. Roentgenograms and cystoscopies are of very little service under such conditions. Resort to exploratory incisions with the view to plastic surgery and drainage is most often indicated.

In a lesser degree, we have hemorrhage resulting from introduction of foreign bodies by the patient or, introduction of instruments, too strenuously. In any event, and with exercise of greatest pains, hemorrhage is often induced. However, this can be greatly minimized if proper knowledge of the geography is had by the operator. Many operators in this field seem to estimate their skill by the rapidity with which they introduce and remove instruments. The writer regards this as wholly wrong. Calculi furnish many symptoms, but the degree depends greatly upon their size, morphology and location. For example, large intramural renal calculi afford at times, but few subjective and objective symptoms; while pelvic or ureteral calculi weaken the very strongest, by the intensity of their symptoms. The effort on nature's part to rid the host of these unwelcome visitors makes for intensity of discomfort. These cases are recognized by history of onset, character and distribution of pain, blood as evidence, whether in great or small amounts, Roentgenograms, wax tips, and so forth. The location, character of stone, and condition of patient will often indicate the means for its disposition. Nephrotomy, pyelotomy, and ureterotomy are necessary for the removal of many of the larger ones, while dilatation of the ureter as another aid to nature's expulsive forces, is yet another.

1. Calculi or foreign bodies in the bladder do not now call for Roentgenograms because the cystoscope not only permits of their apprehension, but also, affords knowledge of size, number, character, location, and some sound advice as to which method should be employed for their removal. For example, there are many foreign bodies and small calculi easily removable with the Young's cystoscopic rongeur. There are calculi which

easily permit of litholopaxy, and yet others, which would be easily crushable, on account of an old chronic cystitis, are best removed by the open operation where drainage to the bladder is highly desirable.

2. Of the renal neoplasms with which we have to do, those outstanding on account of hemorrhage they produce, are the misnamed hypernephromata, and papillomata of the kidney pelvis. There is but little pain felt in the early development of this tumor, and in fact, this as a rule, rarely occurs, from other than increased growth. However, there is intermittent hemorrhage and but little, if any, pus. Obviously, there is impairment of function which is shown by the differential functional tests, sometimes an increase in the non-protein blood nitrogen and increase of function of the opposite kidney. The disease is spread through the blood vessels and because of the invasion toward the pelvis the calices are very much narrowed and sometimes lengthened, also there is broadening at the uretero-pelvic junction, as pointed out by Braasch and confirmed by others, which is demonstrable by the uretero-pyelograms.

There is no passive treatment in such cases, but nephrectomy is urgently indicated. Many of these cases live for years, but sooner or later fatal metastases result.

Pelvic papillomata are said to be diagnosed by pyelograms, but the opinion is that direct view is the best! Varicosities have been seen by the contributor, but he had no idea of the existence of such thing until nephrectomy had been done for unarrestable hemorrhage and found to all intents and purposes, a normal kidney. However, there was an area of varicosity with erosion; while quite small, ample for generous output of blood.

3. Movable kidney is found more often in women than in men; none the less, men are by no means immune. Many of the cases occurring in the male are due to injury of some character. The movable kidney as such, gets most of its notoriety from being palpable here and there, and at times, giving great pain; this, as a rule, is the secondary display and known as hydronephrosis, which occurs from angulation or torsion of the ureter. Too, there stands out in some instances, severe and more or less continuous hemorrhage without further evidence of pathology. The diagnosis is

made from history, clinical evidence, functional tests and uretero-pyelograms.

If the function is good, anchoring the kidney is splendid; if there seems to be irreparable loss of function it is deemed better to nephrectomize; this depending, of course, upon the age and condition of the patient, along with good function of opposite kidney.

4. Pyonephrosis, especially that from the tubercle bacillus or from whatever cause, assures us that in conjunction with constitutional manifestations along with pyuria and hematuria, or definitely active urinary symptoms, we have something for study. If active, there are localized and referred pains, chills, fevers and sweats; definite changes in the blood picture. The occurrence of blood and pus in the urine lead us to the source of supply, determination of cause, condition of the offended and means to either restore function or prevent further disaster. We have the history, clinical picture, examination of ureterally catheterized specimens by microscope and culture, perhaps animal inoculation, differential functionals, Roentgenograms, blood cultures and blood chemistry. It is generally accepted that most of these cases are hematogenous by origin, yet, this does not preclude infections from coming from the bladder upward; first manifesting themselves as pyelitis. We must be kept on guard lest error overcome us by concluding that because there is pain on the right side the pathology is necessarily there. It has been shown that because of what has been called reno-renal reflex, the pain may be opposite to the side actually involved.

If there be tubercular kidney, it is almost always secondary to some other tubercular focus. When existing, it may be assured that sooner or later, the ureter and bladder become involved, in which event, there is a display of the most distressingly active symptoms; they being urgent, frequent, and painful urinations. All this is followed by bladder contractures.

Nephrotomy, removal of calculi (if they be the offenders) and in tubercular nephritis, nephrectomy for the bladder's sake if nothing else, is urgently indicated. However, we must always bear in mind that the great necessity of having the opposite kidney able to perform functions of its weaker mate.

Pelvic lavage is about the only means of reliev-

ing pyelitis, unless there be stricture, angulation, or torsion, as these are the prominent causes of pyelitis, they must be corrected.

5. Idiopathic renal hematuria, which has been misnamed "Essential Hematuria," is more or less rare, but a number of cases have been seen by the writer. This peculiar type of hematuria seems to occur without warning, sometimes after strenuous exercises or without any, and the bleeding is not associated with any subjective symptoms unless they be a slight, dull pain about the loins. It has been shown by certain observers, especially McNider and Payne, that the assignable cause is of inflammatory origin and the pathology is microscopic. However this be, the writer in 1914 reported four cases; three of which had their hemorrhage arrested after simple ureteral catheterization. In one case there was an intermission of eighteen months before recurrence when the second catheterization was done which carried him for four and a half years, when he passed a small calculus. It was claimed by a splendid critic, though I did not take much stock in it, that the calculus was the fundamental cause. However, there were no symptoms pointing to renal or ureteral calculus. It was found that this patient had his dull, subjective symptoms on the opposite from the kidney that was bleeding. Various caustic and styptic solutions had been employed in others, but it was found that this simple method answered satisfactorily.

6. Ureteral angulation, torsion, calculus, inflammatory processes and strictures, all of which afford hematuria to some degree, are to be diagnosed by the usual history of renal and urinary symptoms which include pus, blood, urgent and frequent urinations. Angulation and torsion in most instances result from nephroptosis; yet, we have recently seen a case wherein there was an immense hydronephrosis resulting from an anomalous vein from the kidney passing down and under the ureter about the uretero-pelvic junction and forcibly lifting it to the point of definite angulation. There was an enormous kidney, almost functionless from destruction and, strange as it may seem, no intense pain; bloody urine as the outstanding feature. In this case a nephrectomy was done.

Calculus in ureter shows the intensive symptoms of pain radiating downward through the

urogenital tract, and if it becomes incarcerated, the symptoms become intensified through direct contact as well as causing intrapelvic pressure; if this increases, naturally, what may be a temporary hydroureter and hydronephrosis, becomes permanent, unless relieved. The means of diagnosis then are: History, clinical picture, Roentgenograms, and the wax tips. Whether there shall be pyelotomy, ureterotomy or watchful waiting with dilatation, etc., depends upon the size, character and location of the stone; to say nothing of the processes toward impairment and arrest of renal function.

While, for a long time, the writer was a doubting individual as to ureteral strictures, he has become convinced by none other than Hunner that they are definite, pathological entities. Too, they are responsible for innumerable urinary symptoms and, better, are diagnosable and correctable by the wax bulb, which is used with greater ease in the female through the Kelly cystoscope. It seems that most of these conditions arise in multiparous women or those who have suffered from pelvic inflammatory diseases, whether post operative or not. Gradual dilatation at proper intervals, and only one ureter at a sitting, is a splendid method for obtaining results.

7. Bladder tumors, whether benign or malignant give us blood free of subjective symptoms. Whether the bleeding start or show the first of urination (known as initial hematuria), during the whole process or occurs at the very last (known as terminal hematuria) we have found in most instances that the pathology does not lie above the bladder. In such cases as these the roentgenologist is eschewed for the reason that the cystoscopist not only sees the tumor, its location, size, and character, but gathers substantial information as to the method of attack. Fortunately, the same cystoscopic rongeur previously referred to, and, as a matter of fact, designed for the purpose of biting off a piece of tumor for section and survey, may be used to determine whether there be malignancy. This should not be done, though, without following this excision by intensive fulguration at the site of the injury. In the earlier stages of bladder tumor there is but little, if any, disturbance to the urinary function. Later, with growth, because of diminution of the bladder capacity, which necessarily causes urgency and

frequency and, perhaps, a greater amount of blood, we may also have obstructive symptoms as shown by arrest of stream by part or whole; thus making for acute retention and the horrors which are consequent.

We now have several means of attacking these tumors such as fulguration, application of radium, deep Roentgen rays or the open operation of excision by cautery, radium either in plaque or points, or combination of several of them.

Foreign bodies are not frequent, but pieces of catheter and filiforms are most often limited to the male who either leads the catheter life or the ones into whom the operator has lost a part of his instrument! These are easily removable by the cystoscopic rongeur.

Cystitis, in whatever phase, is familiar to the physician; but, if I may make so bold, the true general cystitis is most infrequent. An acute posterior urethritis, especially of the Neisser infection, which almost invariably causes a cystitis colli, trigonitis and acute verumontanitis will compel the subject to give many of the symptoms of a true, acute general cystitis. There is urgency, frequency, pain, dribbling and at times, blood on urination. The blood, as a rule, comes at the end of urinations and is due to the forces of the expulsive or detrusor muscles acting upon an acutely inflamed verumontanum. No uretral or bladder instrumentation should be employed in such cases, but they should be put at rest and given sedatives until the acute symptoms subside. The urine of three glasses will show cloudiness due to pus. There is a condition known as papillary cystitis which presents some peculiar objective symptoms, but in the main, may be classed with and treated according to degree of involvement. We have found mercurochrome to act splendidly with them.

The "Elusive Ulcer" of the bladder is most often found in the female. Hunner finds them more than other observers, and the reason is obvious. Further, he is most familiar with the treatment which is either direct applications of silver nitrate or excision. The results in his hands are most excellent.

8. Benign prostatic hypertrophy is a condition of enlargement of the prostate gland which is generously assigned to the aged male. Those after the age of fifty are the ones to show the

early signs of urinary obstruction manifesting itself first, perhaps, by hesitancy and dribbling. It may be, not necessarily, that blood comes along as a prominent symptom; yet, nocturnal urination is more or less outstanding. When this condition arises, due to obstruction about the vesical orifice with increasing size and height of the dam, there is a corresponding increase of residual urine with the consequent chronic cystitis, possibly stone formation, hydroureter and hydronephrosis. The prostatic urethra becomes deepened and elongated; the vesical sphincter is placed higher into the bladder and at times, there is definite sacculation just anterior to the vesical orifice which makes introduction of instruments difficult.

We are dependent for diagnosis upon age, history of onset, course of increasing symptoms, palpations by rectum, determination of amount of residual urine bladder capacity and cystoscopy. There may be benign hypertrophy with malignancy, which differs not appreciably from the pure benign hypertrophy. At times it is difficult to determine whether we have an engrafted malignancy or the condition complicated by chronic inflammatory process to which these prostatics are entitled, either through previous urethral inflammation or that acquired as resulting from chronic cystitis plus instrumentation.

The solution of this problem is, in most instances, prostatectomy; whether this be by the two stage or one stage suprapubic route, or the one stage infrapubic operation. There is no occasion to create strife by mentioning choice as to these operations, but I feel at liberty to make a few suggestions which seem pertinent. In the first place, were I to be operated upon by the general surgeon and most of the competent Urologists I would choose the upper route, the reason being that there is gross lack of knowledge of perineal geography with an almost equivalent lack of knowledge of properly performing the operation. Albeit, where there is either malignancy, intense chronic inflammatory or retrovesical benign hypertrophy, I feel that the infrapubic route is the one of choice. Where there is benign hypertrophy, especially invading the bladder, and more especially in those patients who have thin abdominal walls, the suprapubic route is the better. The two stage upper operation is met in the

one stage lower operation by use of retention catheter into the bladder. None of these cases should be done until we have assurance of reasonably good renal function and approach to normal of the non-protein blood nitrogen and creatinin. With either of these featuring in the higher scale, we may rest assured of a corresponding higher mortality. Too, importance of having these old prostatics up and about, both before and after operation, is highly important. Water in large amounts must be respected, and if the infrapubic operation is done, enemata should be scrupulously interdicted.

In prostatic carcinoma, which, while rare, may occur in conjunction with the simple hypertrophy, we have a combination of the afore-mentioned symptoms, the outstanding carcinoma with blood, as a very late sign. There is, instead of dilatation and lengthening of the prostatic urethra and sphincteric displacement, more or less of a tubular stricture of the entire prostatic urethra associated with relative immobility of the vesical sphincter. It is because of this that introduction of sharply curved instruments is difficult. One of the outstanding physical signs is that of "stony hardness" of the prostate as felt by palpation. There are both gland and bone metastases accompanied by the general physical signs of gradually increasing illness.

While some have made bold and done radical operations for removal of the gland, the writer does not feel that there is much justice in these measures, the reasons being that when obstruction is so very great, metastases and their damage will soon overcome life. On the other hand, where there is about equal mixture of the benign and malignant provoking obstruction, perineal invasion with letting down the dam for drainage, is a splendid course; keeping in mind that the malignancy is not cured but the distressing symptoms greatly relieved. The attack for this is best done through the perineum. Pubiotomy and resection has been done, but this does not seem satisfactory.

9. Extremely acute anterior urethritis, sometimes referred to as Russian Clap, or the early stages or periurethral abscess will afford a hematuria which comes along with the first urinary flow.

10. Of the urethral strictures, those of inflam-

matory origin seem most prone to give up blood to the urine in passing.

Diagnosis is based upon history of injury or acute attacks of urethritis, urgent, difficult, frequent uncontrolable and scattering urinations; in many instances, a mere dribbling. Further, we have the bougie à boule, sounds, filiforms and followers for diagnosis.

The treatment depends greatly upon location, character, severity and number. It must be remembered that after the first stricture has been passed, it is difficult to gather much information from the successive ones because the sense of touch, so far as they are concerned, has been arrested by the first. Filiform, follower, sound, Kollman dilator are in order. If the filiform alone works, then we resort to internal urethrotomy, divulsion, retention catheter to be succeeded at proper intervals by further divulsion. The perineal section is almost a thing of the past except where there is deep urethral invasion by scar tissue, when resection is almost compulsory. It may be folly to mention this, but since having seen the thing done and results in some of these not seen, external urethrotomies of the mobile portion of the urethra should never be done! The dangers are those of fistula, and repair then impossible.

PRESIDENT: I will ask Dr. Walter Gray, of Milwaukee to open the discussion.

DR. WALTER GRAY, Milwaukee: Mr. President and Gentlemen. Those of us who know Dr. Timberlake best realize that when he has finished a subject that subject is practically completed.

There are one or two points, however, which I would like to stress, and I know that he will pardon me if I do so. One of them is the fact we have noted within the last two years—and many of you have I am sure—concomitant hematuria with acute appendicitis. The explanation of this is still open to the question whether or not it falls into the group of focal infections, or whether it be reflex from the appendix to the mucosa of the tract. No one knows at the present time. But the fact is well established that in a certain percentage of acute appendicitis cases hematuria is the one thing that confuses us.

Of course the point is clear that the appendix is the important thing, and the hematuria the least important, or of practically no importance for the time being. It is very much better to overlook a kidney condition which can be picked up later, than to overlook an acute appendicitis.

One more thing to stress is the fact that benign hypertrophy of the prostate, and this has been mentioned, gives an early hematuria, while malignancy usually

gives a late one. In other words, we are often thrown off the track by the presence of this symptom, and give the patient less attention than he should have, because many have felt that he was doomed from the first if he had an enlarged prostate with hematuria, when really the fact was the opposite.

PRESIDENT: This paper of Dr. Timberlake's is now open for general discussion.

DR. JAMES C. SARGENT, Milwaukee: Mr. Chairman and Gentlemen. It has been a real privilege to hear this very elaborate discussion of an extremely interesting subject. I do not think anything could be added to it. There is only one thing about it that seems to me might be stressed even further than it has been by the author and Dr. Gray. I believe that the one unfortunate thing about a hematuria is the fact that it is intermittent. If the hematuria were constant, it would not be anywhere near as serious. The unfortunate thing is that the individual with a tumor of the bladder has a hematuria that stops, and a period of a year or so elapses during which the urine is entirely free from blood, and during which time the patient rides upon a false sense of security. It is very important, providing the hematuria is not of the terminal type, that it be investigated thoroughly when it first occurs, because the chances are almost 100 per cent that it is indicative of some really serious pathology.

DR. EDWARD EVANS, La Crosse: Mr. Chairman and Gentlemen. I should like to mention another cause of hematuria that Dr. Timberlake did not happen to touch upon. In 1909 I had a case of pedunculated polyp in the deep urethra. The polyp was hanging in the bladder, by a slender pedicle and this caused very great hemorrhage. I had not seen a similar case until just recently, when my associate, Dr. Bannen had another pedunculated polyp in the deep urethra. This condition had been going on for some 6 or 8 years, he had had two laparotomies, the bladder opened supra-pubically twice, and he had been through many hands, but still continued to have great urgency, frequent hemorrhages, and quite often blocking of the urinary flow. It is interesting to note that Dr. Davis of Omaha, has recently reported a similar case in S. G. & O. that had gone for years and years through the best hands, in the same way, where he had a deep urethral polyp. Dr. Davis' case and Dr. Bannen's were both destroyed by fulguration. In my own case I removed it through a supra-pubic incision. These polyps of the deep urethra are, however, rare; and may be very difficult to diagnose.

PRESIDENT: Is there further discussion? If not, I will ask Dr. Timberlake to close the discussion.

DR. GIDEON TIMBERLAKE, Baltimore: Mr. President and Gentlemen. I appreciate very much the reaction this simple effort has brought forth. It is not much of an effort for me, but hard on you.

As to stressing certain points, the first must be confined to remarks made by the gentleman who succeeded Dr. Gray, having to do with occult blood. Blood, regardless of amount, should be regarded in light of a danger sign; therefore, its source should be sought at

the earliest possible moment with the view to proper diagnosis and early correction of what provokes it.

I have just recently seen a case of hydronephrosis that gave but little pain and most intense bleeding; the diagnosis was conclusively made while at the operating table. The cause of the hydronephrosis was an aberrant vein passing upward from the lower renal pole and angulating the ureter. There was yet another hydronephroma of a similar character that produced marked jaundice; this, I assumed, due to pressure about the common bile duct. When it was removed, the jaundice disappeared.

Papillomata about the deep urethra are not as frequent as one might suspect. They are treated best by direct application of caustics; Keyes prefers applications of ammonium nitrate. Fulguration, except through gutta tubes, is poor sport for the patient and worse results for the operator. The reasons are obvious.

I have seen numbers of vesical hemorrhages from arteriosclerotics who have had ruptures of the bladder arterioles, and the hemorrhages have been most liberal; however, this is regarded as a compensatory turn of nature and instead of their being grave danger because of it, it has been regarded in the light of a blessing.

As has been mentioned, hematuria, in cases of prostatic carcinoma, is a very late sign. The therapy of radium, either by needling, introducing of points and deep showers, have not proven satisfactory in our hands. Recently, I removed a prostatic carcinoma, in part, by perineum; advised that the patient have deep Roentgen therapy feeling assured he would soon die, and later, was told by his physician that he was healed up and bladder functioning splendidly. This, however is hearsay! I cannot help but feel that we are justified at times in reducing the horrible symptoms having to do with complete urinary retention, by suprapubic drainage or perineal prostatectomy. Suprapubic prostatectomy in outstanding cases of carcinoma is a serious and unwise undertaking owing to danger of rupture of the pre-vesical blood vessels and rents into rectum and destruction of bladder, for which there is no repair. The metastases usually take an early toll.

A few drops of blood found at the very end of the urinary function is most often due to vesical tumors, vesical calculi (associated with pain from pressure) or inflammations and erosions of the verumontanum. All these result from the force applied by the detrusor muscles of urination and expulsion.

Ferrassin Not Accepted for N. N. R. The Council on Pharmacy and Chemistry reports that Ferrassin is marketed by Robert Wollheim in the form of tablets and capsules. They are said to be composed of "Vegetable iron," "Peptonized Iron and Manganese," "Plant Albumin," and Milk Sugar. No information is furnished in regard to the composition of "Vegetable Iron" or of "Peptonized Iron and Manganese." Ferrassin was declared inadmissible to New and Nonofficial Remedies because its composition is secret and it is marketed with unestablished and unwarranted claims. *Jour. A. M. A.*, May 24, 1924, p. 1712.)

CARDIO VASCULAR SYMPTOMS AND SIGNS OF EARLY HYPERTHYROIDISM*

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The marked cardiac stimulation in thyrotoxicosis has been long emphasized and the fatal outcome in many cases is due to overstimulation with subsequent cardiac failure. Those of us interested especially in early cardiac disease must be impressed with the frequency of confusion of this condition with hyperthyroidism. The proportion of patients with early hyperthyroidism seeking medical advice because of supposed heart disease is very large. In a series of twenty cases of early hypertrophyroidism which forms the basis for this communication, the principal complaint in 15 was palpitation and in 11 pronounced shortness of breath, two symptoms closely associated in the mind of the layman with heart disease. An early separation of these two conditions is not always easy and the error of the patient involves also the physician in an unfortunately large number of cases.

The series of 20 cases has been selected to include only those with early manifestations of the disease and at their first consultation. The average age of this group was 20 years, the oldest 50, the youngest 22. Sixteen of the twenty were in the second decade. The basal metabolic rate averaged +21.2; the lowest rate was +10.00, the highest +45.6. The main symptoms complained of in all were cardiovascular, including palpitation, rapid and forceful or irregular heart action in 15, definite shortness of breath on slight activity in 11, hot and cold flashes in 7, throbbing in the peripheral vessels in 4 and excessive sweating and coldness of the extremities in 5. Of the usual eye signs, exophthalmus was present in 8, widened palpebral fissure in 12, v. Graef's sign in 11, weakness of ocular convergence in 8, reduced eye winking in 4, reduced corneal reflex in 3 and weakness on lid closure in 3. Fine hand tremor was present in 17, fine tongue tremor in 9, reduced forehead wrinkling in 4 and weakness of the quadriceps group of muscles in 3. The thyroid lobes were enlarged in 15, the isthmus in

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13. Expansile pulsation of the gland was present in 2, a thrill over the gland in 4 and a bruit in 3. The cardiovascular signs interested us most and each case had a very careful clinical heart examination as well as x-ray and electrocardiographic studies. The x-ray studies included a teleroentgenogram at 2 meters with comparison of the cardiac area with Bardeen's standard tables and an orthodiagraphic study in the frontal and lateral planes.

the standpoint of respiration and fatigue. The symptoms in this group are practically the same as in the hyperthyroid group. The usual ocular and other signs of hyperthyroidism were less frequent. Of the 10 cases, exophthalmus was noted in 1, widening of the palpebral fissure in 2, and weakness on convergence in 1. Hand tremor was present in 4 and tongue tremor in 3. V. Graef's sign, disturbance of lid closure and reflex, reduction of

TABLE 1. CLASSIFICATION OF CASES.

Series	Total Cases	Avg. Bas. Rate	Apex Beat		Card A Perc.	Engl. X-ray	R/L	Syst. Mur.	Retr. Sp. Red	Abn. Ekg.	Art. Bl. P			Cap	
			Displ.	Inc.							S	D	P P	P	P S S
Hypth.	20	+21.20	25%	40%	30%	35%	1.51	85%	30%	81%	127	77	50	72%	32%
Doubt.	9	+ 5.46	22%	0	11%	0	1.51	33%	11%	21%	119	78	41	44%	11%
Normal	12	.....	0	0	0	0	1.61	0	17%	17%	118	81	37	0	0
N. C. Asth.	10	.....	40%	40%	0	0	1.67	70%	12%	40%	122	74	48	77%	55%

For purposes of comparison, three other groups of cases, studied in the same manner, are presented in tabular form. The first of these include 9 cases in which there was sufficient data from the general examination to suggest the probability of hyperthyroidism and warrant the taking of a metabolic rate. These cases are classed as doubtful; perhaps in most cases at least they should be classed as potential hyperthyroids. In all but two the basal rate was above the normal standard, but in all less than the usually accepted variation of +10%. The symptoms in this group were practically identical with the thyroid group, palpitation or other cardiac symptoms in 6, shortness of breath in 4, hot flashes in 4, excessive sweating in 4 and peripheral throbbing in 2. Of the eye signs, exophthalmus was present in 3, widened palpebral fissure in 4, von Graef's sign in 2, weakness on convergence and reduced winking and winking reflex one each. Hand tremor was present in 5, tongue tremor in 2, reduced forehead wrinkling in 2, quadriceps weakness in none. The second group is a normal series of 12 cases carefully selected for absence of symptoms or signs suggesting hyperthyroidism. The third group includes ten cases classified as neurocirculatory asthenia, effort syndrome. They are classified on the following data: 1. Absence of ocular or other signs of hyperthyroidism or if presenting isolated signs in showing a normal basal rate. (2) Excessively unstable heart rate depending upon body posture and slight exercise. 3. Excessive subjective reaction to exercise from

forehead wrinkling and quadriceps weakness were absent in all cases.

Assuming the normal position of the cardiac apex as the 5th interspace on or within the mid-clavicular line, displacement was encountered in all three of the abnormal groups. An increase in the extent or force of the apex beat was quite common in the hyperthyroid and effort syndrome groups. Cardiac enlargement to percussion and to the x-ray, the latter on a basis of more than 10% above the normal average, was practically confined to the hyperthyroid group, in which it comprised approximately one-third of all cases. The very great frequency of systolic murmurs in the hyperthyroid and effort syndrome groups was one of the most interesting facts to us, occurring in approximately four-fifths of all cases. In the great majority of instances these murmurs are soft in character, maximum at the base and have little or no transmission. In no case was the apical first sound entirely replaced by the murmur. The commonest seat of the murmur is the second and third left interspaces close to the sternum. In the hyperthyroid group it occurred in this position in 13 cases. In 2 cases the murmur was apical and in 2 cases it was present only over the upper right interspaces. In only two cases was the transmission at all suggestive of an organic murmur. The murmur in two cases was rough, and in one it was musical in character. Exactly similar characteristics were found in the effort syndrome group. Another point of interest is the high percentage of abnor-

mal or, perhaps, more strictly speaking atypical electrocardiograms. The commonest type of variation is negativity of the T wave in lead three, occurring in ten of the twenty cases. Evidence of preponderance of one ventricle or the other occurred in 5 cases; three right sided and two left sided preponderance. In no case was abnormality of the Q R S group encountered. The early slight enlargement of the heart in many cases of hyperthyroidism is indicated further by a reduction in about a third of the cases of the retrocardiac space between the posterior cardiac border and the spinal column, due to enlargement of the left ventricle posteriorly. The same thing is indicated by a lowering of the factor designated in the table as the R/L ratio. This factor is obtained by a special method of mensuration in orthodiascopic technique, the details of which are beyond the scope of this paper. It is only necessary to note here that a reduction of the R/L ratio below its normal value indicates enlargement of the left ventricle posteriorly. Finally, of cardiac effects noted, exaggerated sinus arrhythmia was present in 10 of the 20 hyperthyroid cases and in 6 of the cases of effort syndrome.

Examination of the peripheral circulation in these early cases shows a tendency towards a slight rise in systolic pressure and a slight fall in diastolic pressure. Though the changes are small, together they are sufficient to produce a definitely increased pulse pressure. In the hyperthyroid group the pulse pressure was more than half the diastolic pressure in 14 of the 20 cases. This indication of an increased systolic discharge from the heart is further manifested by the surprising frequency of occurrence of the so-called capillary pulse in the mucous membranes and of audible sounds over the peripheral arteries, especially the so-called pistol shot sound over the femoral artery, and finally in reducing the normally sustained quality of the radial pulse. In ten of the hyperthyroid cases the radial pulse was noted as collapsing in character, but in no case was it of the definite water hammer type such as is encountered in aortic regurgitation. These changes in the peripheral circulation occur as well in the cases of effort syndrome and are, therefore, not distinctive of early hyperthyroidism.

The more frequently encountered cardiovascular signs in early hyperthyroidism are then (1) slight displacement and increase of the cardiac apex beat with slight enlargement to percussion; (2) the occurrence of a systolic murmur, usually basal and with slight transmission; (3) poorly sustained peripheral pulsation with a pulse pressure higher than normal, a capillary pulse and auscultatory sounds over the uncompressed peripheral arteries; (4) exaggerated sinus arrhythmia. Finally there should be mentioned the confirmatory evidence of slight cardiac enlargement from x-ray studies and abnormalities in the electrocardiogram, especially in relation to the T wave in lead three. These signs, like other clinical signs are not always present, but we believe that they are equal in occurrence and importance to other signs which have been so much emphasized, especially the ocular signs. Their occurrence in other clinical groups, first in an indeterminate group, and second in the group classified as effort syndrome, should be recognized as likely to lead to confusion. In regard to the first group, we are inclined, as I have said, to regard these cases as potential hyperthyroids and believe that they should be kept under observation if possible. The symptoms and signs of this group differ only in degree from the definite hyperthyroids, and they usually show a slightly elevated metabolic rate. Three cases under my observation within the past year have passed from this group to definite hyperthyroidism and the mild hyperthyroid in convalescence shows all the characteristics of this group. In the absence of facilities for metabolic rate determination, these cases should be treated as early cases of hyperthyroidism. Cases falling in the group of effort syndrome do not as a rule offer much difficulty. The main clinical characteristics I have already mentioned and in the great majority of cases these in conjunction with the infrequency of ocular signs make definite separation possible.

The main corollary to be drawn from this study to my mind is to be always on the look out for early hyperthyroidism in patients presenting themselves for examination because of cardiovascular symptoms. Every case of suspected chronic heart disease should be considered first in this light. This is especially important in the so-called goiter regions. The special ocular and

other tests require only a few minutes. The proper interpretation of a systolic murmur may first appear when the case is thus classified. It would still seem to be necessary to emphasize that a systolic murmur not only does not always but usually does not mean organic heart disease.

There is one further question of practical importance upon which we believe our studies shed some light, namely how early and how seriously is the heart affected in hyperthyroidism. This is of especial importance in the mild early cases where the question between medical and surgical treatment must be decided. It seems probable that most of the early effects on the cardiovascular system are through the nervous connections rather than on the peripheral organs. A diminished vasomotor tone probably accounts for the peripheral signs and the increased systolic discharge from the heart. The sinus arrhythmia and probably extrasystolic arrhythmia are due to a hypervagotonus. The apparently significant electrocardiographic change, T negativity, is probably a vagus effect. The slight cardiac enlargement may be due to hypertrophy, but also may be in part or wholly due to an increased diastolic tonus from hypervagotonus. Six of the cases in our series have been under observation for over a year and examined several times during this period. In those showing no change in metabolic rate and signs, the cardiovascular signs are unchanged and no progressive increase in cardiac enlargement has been noted. In no cases have we encountered an electrocardiogram showing abnormalities in the Q R S group indicating advanced myocardial change. I do not believe that in the early mild cases of hyperthyroidism the decision to resort to surgery should be determined by the fear of permanent serious cardiac damage. In the fulminant type of case or the long continued case which fails to respond to rest treatment, the consideration is, of course, quite different.

PRESIDENT: The discussion will be opened by Dr. Reginald Jackson, of Madison.

DR. REGINALD JACKSON, Madison: Mr. President and Members of the State Society. I think without any question one of the most important factors to be considered in advancing the treatment of toxic goiter, especially that classic form known as exophthalmic goiter or Graves' Disease, is an earlier recognition on the part of the general practitioner of the signs and symptoms indicative of the presence of this disease, together with a keener appreciation on his part of his

responsibility, not only as regards diagnosis but also as regards the need for proper surgical treatment. Today, the physician who fails to recognize and bring to operation cases of acute appendicitis, is no longer tolerated by the public. The laity is beginning to look askance at the physician who fails to recognize and properly handle cases of toxic goiter. Delay in the treatment of toxic goiter is often fatal. The profession has only in part come to recognize this fact. Too many physicians still refuse to admit it. The situation is somewhat similar to that which years ago obtained in regard to cases of widespread septic peritonitis following the so-called cases of inflammation of the bowels, placing a tremendous handicap upon the surgeon who was called upon to operate these cases.

I am frank to admit that I have made a great many mistakes in the early recognition and diagnosis, even in advanced cases of toxic goiter, especially in exophthalmic goiter before the existence of exophthalmus, and it is not in any spirit of criticism or superiority, but rather because I have had an opportunity to make an extensive study of the subject, aided by proper laboratory facilities, that I would call attention to the fact, that, first, there are a great many unrecognized cases of toxic goiter in Wisconsin; and second, that in many of those cases which are correctly diagnosed the diagnosis is made at such a late stage in the progress of the disease that the problem presented to the surgeon is one which taxes him to the utmost of his ability and judgment.

It is not a very infrequent occurrence in our clinic to admit cases, well advanced cases, of exophthalmic goiter and toxic goiter, in which the patient has been under treatment for some time, weeks or months, for stomach trouble. Indeed I think that this is one of the most common of the erroneous diagnoses made in this condition. When a patient has been treated in this way, with restricted diet, possibly repeated gastric lavage or rectal feeding, and has developed advanced myocardial and renal degeneration, and possibly has auricular fibrillation, the surgeon may be pardoned for lamenting the fact that the diagnosis has not been made weeks or months earlier. In these cases if the diagnosis had been made earlier the operative treatment required would have been a relatively minor one. As it is, when they come in the surgeon is too often compelled to see these cases die within a few weeks or days or hours sometimes, after admission, not daring even to undertake any surgical procedure whatsoever. Just as in the old days we finally got to the point where when cases were brought in with a generalized peritonitis, leaky skin, celd, clammy, and imperceptible pulse, we gave up the idea of giving them a last chance by opening up the abdomen. It has taken a great many years of educational work on the part of the surgeon to educate the general practitioner, to convince him that in these cases he himself is just as much, if not more to blame for the death of the patient that occurs following operation, as the surgeon who performed the operation.

As regards the cases of toxic adenoma, there is still less room for not making correct diagnoses. As I say,

the diagnosis of a case of incipient Graves' Disease is very often difficult, and we are very apt to miss them unless our mind is attuned to the symptoms and signs indicative of the presence of the disease. In cases of toxic adenoma there is less excuse for missing the diagnosis, because there is always, or nearly always a visible and palpable enlargement of the gland with adenoma, and the mere presence of this condition in the thyroid gland should excite the suspicion of the examiner immediately as to the part which the thyroid gland, the deranged condition of the gland, may play in the symptoms of which the patient complains.

As a matter of fact these toxic adenoma cases do not seem to be so seriously ill at times, and yet the operative mortality rate is higher than in cases of exophthalmic goiter, simply because they have gone through many years in which there have been many periods of toxicity, and the cardiac and renal degeneration is more advanced. And, as I say, the mortality rate is higher.

On the whole I think that the results obtained in the treatment of goiter, toxic goiter, are remarkably good, considering the advanced nature of a great many of the cases. But I do honestly feel that a great improvement can be made not only in the operative mortality, but in the ability of the patient to stage a comeback to normal after operation. Many of these cases reported as cured after operation for toxic adenoma are not cured in the sense that they are restored to normal. They are deficient in many ways more or less for the remainder of their days. And I do feel we could make a great improvement as regards results, with the same method, with the same identical operation, oftentimes less of an operation, by the simple procedure of advancing the stage at which the operative procedure is taken. In other words, the general practitioner must recognize in this condition what he has already learned through bitter experience, in cases of appendicitis, that the element of time is a very important factor, not only in the progress but in the treatment of all surgical conditions.

DR. F. B. McMAHON, Milwaukee: Mr. President, and Members of the Society. I am very pleased to have the opportunity of listening to Dr. Jackson's and Dr. Eyster's papers on this subject of goiter.

The promiscuous use of iodine in suspected or well developed cases of goiter is harmful except in prevention of colloid goiter during the years of adolescence. In these cases, it should be prescribed only through physicians and health officers' organizations.

In adenomata of the thyroid and in hyperthyroidism, it will often exaggerate the course and symptoms of the disease. In hyperthyroidism, Lugol's solution is of temporary and transitory benefit if employed intelligently and cautiously with the patients under absolute control and under careful observation.

At the present time, we are aware of considerable drug store and commercial advertising displays regarding treatment and the prevention of goiter, which unless curbed, is going to have a bad effect, and will delay the

patients coming to proper sources for examinations and treatment.

Prevention can be further carried out in the searching for and removing of recurring and chronic foci of infection. The onset of the disease or an exacerbation of hyperthyroidism is frequently associated with or follows an attack of acute or chronic tonsillitis, or a severe oral or dental infection.

Basal metabolic readings are of great importance and aid, and should be made when available and can be correctly taken and interpreted in suspected cases of exophthalmic goiter or adenomata with suspected toxic symptoms. In that, they are of corroborative value in the diagnosis, or an *aid* in determining expedient procedures. The impression should not be created, however, that basal metabolic readings *make* the diagnosis and the differential diagnosis. Of far more value to the physician and to the surgeon is a good well worked out history and a careful physical examination.

When there is any doubt as to the advisability in whether to ligate or to do a primary excision, *always* ligate. The two or more stage operations will show an average gain in weight of twenty pounds in the three month interval preceding excision with vast improvement in the cardio-renal, the gastro-intestinal, the portal and nervous systems.

The results from the operative treatment of goiters are improving each year. Patients are coming earlier—before extensive damage has been done to the various important systems and the ripened experiences of surgery have resulted in a fairly uniformly careful intelligent plan of surgical management. The experienced surgeon has learned when *not* to operate as well as how to operate. The danger signals of extensive operations should be well known to all of us for they will put the mortality and the morbidity of goiter surgery down to a base line that will scarcely include anything but the complications of any major operative procedure. These signals are:

1. Evidence of a recent or an impending crisis or exacerbation.
2. Marked cardiac dilatation or decompensation.
3. Extensive parenchymatous degeneration — especially renal and hepatic.
4. Recent acute infections.
5. Diabetes in a moderate or severe degree.
6. Psychoses.

In colloid goiter with marked pressure with or without substernal evidences of invasion a short rest in bed, restricted and regulated diet to counteract obesity, and intelligent iodine therapy will reduce the tracheal pressure and vascular engorgement to a degree that may convert a bad surgical risk into a good one.

The choice of anaesthesia is important. Other things being equal, make the anaesthetic adaptable to the case and to the patient and *not* the patient adaptable to the anaesthetic. Surgeons the world over differ greatly and probably always shall differ as to the merits of various anaesthetics. I prefer local anaesthesia and employ it frequently. It demands careful handling of tissues and respect for important anatomical structures. Nitrous

oxid gas, ethylene, or ether may be used in conjunction with it. Morphine gr. 1/6 and scopolamin gr. 1/300 are given together hypodermatically one hour before operation. Absolute quiet should be maintained in the room and also in the operating room.

In the post-operative care of hyperthyroid patients emphasis should be laid upon the importance of Dr. Crile's method and experience with the ice pack to counteract fever, tachycardia and increased metabolism.

As regards malignancy, the percentage of cases is very small considering the vast number of tumors of the thyroid gland. I have seen but three cases and in them the diagnosis was quite easy because it was fairly well advanced. The hard palpable gland symmetrically enlarged or the patient with a history of a tumor of long standing that more recently has shown rapid enlargement, and with a dyspnea and usually a dysphonia causes you to suspect the possibility of malignancy. In these cases, some palliative results have been reported with X-ray and radium therapy both with and without surgery. The majority of malignant thyroids, however, unless seen early are hopeless with any form of treatment and where the diagnosis can be made before operation, I do not usually advise surgical treatment for the condition.

A word regarding recurrences in exophthalmic goiter. It is only occasionally now that this condition presents itself, but it constitutes a source of trouble and of worry. Recurrences are due to several factors:

1. A failure to eradicate successfully foci of infection.
2. A failure to remove enough of the thyroid gland at the time of resection.
3. A failure to remove or correct other exciting causes as physical or mental strain and worry and dietetic errors.

Finally something might be said about the differential diagnosis of hyperthyroidism, for many of our alleged toxic goiters are not true primary lesions. The following occur to us at once as possible sources of confusion:

1. Neurosis.
2. Goiter Phobias.
3. Acute and chronic suppurative processes in which the thyroid reacts only as a defense organ, and subsides after the removal of the cause. In this group is included infection in the tonsils, teeth and sinuses.
4. Pulmonary Tuberculosis.
5. Hypertension with tachycardia.
6. A group of patients manifesting early certain mild psychotic symptoms, possibly one to two years before the tragic nervous or mental storm. Some of these patients may have small adenomata, but the other symptoms dominate the clinical picture if carefully analyzed and only very rarely are they benefited by thyroid surgery. The failure to differentiate this group from cases of true hyperthyroidism has resulted in the astounding condition of finding in going through psychiatric institutes, almost as many patients with parts of their thyroid removed as there are tabetic patients with their appendix and then their gall-bladder out or a gastro-

enterostomy neatly suspended from the greater curvature of the stomach for a peptic ulcer that never existed.

PRESIDENT: Before opening this subject for general discussion I will call on Dr. Robert H. Babcock, of Chicago, who is a guest this morning. We are very fortunate in having Dr. Babcock with us, and I know you will be glad to hear from him.

DR. ROBERT H. BABCOCK, Chicago: Mr. President and Members of the Society: I am especially grateful for the privilege of having listened to these papers this morning. It seems absurd for me to stand on this platform, since I cannot add anything of value to what has already been said both in the papers and discussions with reference to the treatment of toxic goiter, and to the cardio-vascular system.

I should like to say that I think the responsibility of the physician is not only in the early recognition of a toxic goiter, but the turning over of that patient to a surgeon. My experience with the treatment of toxic goiters with the X-ray and radium has not been extensive, and has not impressed me favorably. When I see a case of toxic goiter I feel that my responsibility means to refer that patient to the surgeon, and then, Gentlemen, it is not so much the operation I dread as it is the operator. That applies to nearly all cases I have observed which required surgery. With reference to the early symptoms, especially tachycardia, I should like to emphasize the fact that it is not transient tachycardia that should excite our suspicions of goiter, but prolonged tachycardia—I might say permanent tachycardia, moreover, my experience has been that the cardiac disturbance or disorder has not been so frequently one of arrhythmia as in tachycardia, which tachycardia is present more or less whether the patient has had rest or is up and about. Then I always feel that a very careful search for other signs of toxic goiter is up to the physician.

I see cases of tachycardia and so-called palpitation which are secondary to disturbances of the sympathetic nervous system, but in those cases I usually find that the cardiac manifestations are not so permanent, they are rather more periodic, than in those cases which excite my suspicion of the effect of the thyroid upon the cardiac action.

As these cases progress they display auscultatory, palpatory and percussion evidences of derangement of the heart, outside of its mere action. I feel that frequently the increased area of cardiac dullness as corroborated by the X-ray is not necessarily a manifestation of hypertrophy so much as it is of the fact that the cardiac chambers do not empty themselves when there is a prolonged tachycardia. I think that is quite evident. If seen early, and operated early, these hearts will return, in my experience, to the normal size as well as to a normal action.

I am very glad the last speaker referred to the influence of focal infections in stirring up toxic goiter. If I am not exceeding my time, I recall very distinctly a case that I saw at least twenty years ago, distinctly a toxic goiter. It was about or a little prior to the time when Billings and the Presbyterian Hospital in Chicago

had pointed out the influence of focal infections on the thyroid. In that case I am satisfied there was organic mitral disease in addition to the toxic goiter which had developed later, I was not satisfied with the mere association of the two. I believed there was an etiologic factor somewhere. That was found in a tooth abscess, when the teeth were extracted and the cavities properly curreted, the effect on the size of the goiter, the reduction of the rapidity of the heart, and the gain in general, was truly remarkable. From that time to this I have always searched for foci of infection in any case of toxic goiter. I feel amply repaid for having come up from Chicago for the opportunity of hearing these papers this morning, and I feel that I shall go back with information that will aid me materially in differentiating these cases hereafter.

I thank you very much.

CONSTITUTIONAL PSYCHOPATHY AS A BACKGROUND FOR HYSTERIA

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WAUWATOSA

No physician's work is so limited but that he sees more or less of the psychoneuroses. The symptoms, as we know, vary from the most intangible to something so definite, persistent and stubborn that we know its every phase, excepting cause and remedy. We are just beginning to understand something of the cause of these conditions and treating them with a more intelligent understanding of what the condition really is.

The following cases are submitted because in each there is a definite history of a constitutional psychopathic condition before the onset of the symptoms that were diagnosed as those of hysteria. All these patients were seen by general men before being referred and two of them were treated at some length for an organic condition their symptoms simulated. A thorough investigation of the past lives of these individuals would have disclosed the fact that there were many incidents and activities that were distinctly out of tune with a normal mental equipment. Fortified with this knowledge, that some psychopathology had been evidenced by the patient at various times, the condition of hysteria would have been more seriously considered at the onset of the condition.

The term constitutional psychopath or personality while not new is one that is used but infrequently outside neuropsychiatric work.

Too, just what mental abnormalities are considered characteristic of this condition has not been definitely and satisfactorily arrived at by the men who are doing this work. So, perhaps, an understanding as to what is meant in this report by that term would be well.

Those individuals are considered constitutionally psychopathic who have an insufficient type of adjustment to their surroundings. They may appear brilliant but there is a noticeable lack of continuity in their activities or as it has been aptly put "their life is one long contradiction between apparent wealth of means and poverty of results." They may appear to have a normal intellectual endowment or they may appear to be gifted, as in art, conversation, etc. Deeper investigation, however, shows their knowledge to be superficial. Of the cases cited below one was a college graduate practicing a profession and one a college student making creditable contributions to the university literary magazine. The mental aberration may be characterized by an emotional instability changing quickly from one reaction to another, there may be outbursts of rage or despair. Criminal tendencies are sometimes seen and they frequently run foul of the law. Usually they are given to boastfulness and fabrication, representing themselves to be important personages. The characteristic disturbance, however, is that of will. They lack the capacity to stick to any one occupation, they are not punctual and cannot proceed in an orderly way with the things they are fitted for. Their instability renders them easy prey for the development of a neurosis or psychosis following sufficient strain or shock.

It cannot be believed that an individual with a normal mental equipment will develop hysteria. This fact has been clearly shown by such men as Janet, Babinski, Breuer and Freud. No discussion of their ideas will be taken up here, we will assume that hysteria is a psychic mechanism and that one of the predisposing causes is the above described condition.

The personal history of the following patients is made as brief as possible, only enough data is offered to show that these people are not normal mentally.

CASE 1

Male, age 38, traveling representative for a

manufacturing concern. He came from a good family, his father was a physician who died several years following an apoplectic stroke. The mother died of a cancer. There is one brother, a very successful business man on whom the patient is now more or less dependent, and one sister who occupies a high social and intellectual position. The patient's childhood was apparently not unusual. At the age of sixteen he ran away from home and stayed for about ten years. Shortly after his return home he was married. His wife soon became pregnant and he performed an abortion with a metal catheter. After a year or so of married life he left suddenly for no apparent cause. He and his wife have lived together for short intervals only, ever since. His means of a livelihood have been varied, barber, palmist, phrenologist, "shell-game artist," ranch hand and lineman with a surveying party. He stayed with no occupation for any length of time until his last position which he secured seven years ago. This work kept him on the move a great deal as his duties were to adjust complaints made by the agents of his firm.

On January 2 of this year he suddenly developed a severe occipital headache. With this there was a total hemianesthesia but nothing else. He promptly began the use of morphine for relief and soon became addicted to it. While in the hospital under the care of a physician he would frequently become angered because he was not relieved, leave the building and become intoxicated. He was then recommended to a sanitarium for care. His chief complaints on admission to the sanitarium were, occipital headache, hemianesthesia and sleeplessness. His manner was one of boastfulness to the extent of lying about his past accomplishments particularly in a business or financial way. He craved sympathy and would boast of his ability to stand pain patiently. At the same time he would demand strong medication and cry unless it was given him. He particularly wanted hyoscine at night, if it was not given he would remain sleepless. Soon after coming to the sanitarium he became infatuated with a nurse and when in her company, as he was at times, his pain appeared to leave him entirely. He met the nurse outside one evening and didn't return until considerably past the time for his injection of hyoscine and he did not re-

ceive it. Nevertheless he had a good night. The following night when he was given an injection of sterile water he remained almost sleepless and complained bitterly of it.

The neurological and physical examinations disclosed nothing organic. The man's past life certainly was one that would not be followed by the individual with a normal mental make up. His anesthesia was typically hysterical. His headache was present to a certain extent probably but aggravated and exaggerated by the hysterical element. He has been improving slowly and does much better when solicitations as to his condition are kept at a minimum.

CASE 2

Male, age 30. As far as could be determined his family history was negative as well as his early life. He graduated from college and entered a profession to which he has devoted himself after a fashion ever since. For a number of years he has indulged in alcohol more than moderately and at one time used narcotics and probably was addicted. For a few months prior to admission he had been drinking grain alcohol to excess. His conduct slumped markedly, he developed an ugly disposition, would strike his wife or evince other signs of cruelty and disregard for his responsibilities. His general health became impaired and he went to a sanitarium for relief.

On admission the examination disclosed the usual mental and neurological changes incident to the excessive use of alcohol. For the first few days there was a marked drowsiness that almost amounted to a stupor. He was greatly confused and cooperated poorly in the treatment outlined for him. As his mentality became clearer his manner became boastful and he had frequent outbursts of anger with little or no provocation. As he became better his father was anxious for him to return to his work but the patient was unwilling to do this and felt that he was being imposed upon when asked to take up his work so soon. There had previously been a history of an attack of renal colic but the true nature of the pain was not definitely established. These attacks returned when the question of the patient's leaving the sanitarium was brought up. The pain was quite typical of that of renal colic but the attacks were not followed by hematuria or subsequent pass-

ing of calculi. The attacks were, however, definitely related to conversations relative to his going home or to visits from his family. When it was definitely decided that he should stay on for a while there were no more attacks of renal colic.

This patient should make a very good recovery from his present condition; in all probability he will break down again when things begin to go bad for him.

CASE 3

Female, age 22, occupation, student. The family history shows the mother to be definitely neurotic, developing attacks of neuritis following mental strain or emotion. The father is a traveling salesman and is home only a few times a year. There is one brother who is distinctly psychopathic, with criminal tendencies. He has served a sentence in Leavenworth and at present is living under an assumed name to escape detection. There is one sister with whom the patient quarrels constantly.

The early life of the patient was not unusual except for the fact that she was nervous and quite emotional. It was not until she was in college that psychopathic traits began to assert themselves. College life seemed to be one maladjustment after another, the patient seemed unable to make anything like a satisfactory adjustment in any atmosphere here. She gave up living at home because of frequent quarrels with her mother and sister, she felt that she was misunderstood and imposed upon. She was a member of a sorority and tried living at the chapter house but she was unable to meet the demands of this intimate social contact. She sought seclusion but became morbid and turned to religion for relief. Her activities here were carried on with such fervor that an attempt was made by her family and faculty advisor to restrict them. This resulted in the condition that was responsible for her being sent to a sanitarium. For several days her vision was lost and she became mentally confused. She complained of an intense feeling of pressure in her head and had frequent crying spells for apparently no reason whatever. On admission to the sanitarium the physical examination disclosed nothing of importance aside from some of the "stigma of degeneration," such as an exceedingly high arched palate, deviations from the nor-

mal female contour, narrow palpebral fissures and deep set eyes. Her mental condition was suggestive of the manic phase of a manic-depressive psychosis,¹ because of the hyperactivity, hypercerebration, flightiness and distractibility and mild decorative tendencies. Occasionally she would have attacks of hysterical crying, precipitated by some opposition to her will. On one occasion she attacked a nurse much smaller than herself, choking her and throwing her on the bed. She had become angered because the nurse had called her the second time for her bath. Even in a sanitarium she has had a difficult time in making an adjustment, after being changed a time or two she was placed in a building where she finds it easier to get along. Her condition is improving slowly, the crying spells are seldom seen now and she doesn't complain of the many trivial things that occupied her mind so much at first. Her activities are greatly lessened and she is getting more pleasure out of life than she has for the past year.

CASE 4

Female, age 24, occupation, nurse. The family history is negative except for the fact that one paternal uncle had epilepsy. The mother died when the patient was very young and she lived with her father until she was sixteen when he died. No history of anything unusual was found thus far in her life. She entered nurses' training when she was eighteen, taking four years to complete a three year course. This was due to illness following which she began to exhibit actions that marked her as being abnormal. She managed to complete her training and left the hospital and having no home she started to live with relatives. She was unsatisfied wherever she went and her visits with different relatives were short and frequently unpleasant. The onset of headaches caused her to resort to morphine and to become addicted to it. She was sent to a sanitarium and lived there for six months before she was considered stable enough to live on the outside again. After this she was forced to live on the charity of relatives and she became quite a difficult charge because she resented the fact that they watched her actions closely and she complained a great

¹Kraepelin describes a manic form of constitutional psychopath.

deal of ill health. A position was secured for her but she had worked for only a short while when she began using morphine again. She was sent to a private sanitarium but cooperated so poorly in the treatment that she was taken to a state hospital where she readily came off the drug. Her actions had become such that her relatives believed her to be psychopathic and attempted to have her committed but the court before which she appeared refused. Following this move by her relatives she developed a most peculiar type of convulsive seizure. The head would be violently drawn back and the legs flexed on the thighs, the entire body being held very rigid. She would remain in this position from five to twenty minutes, the attack might or might not be followed by others, she has had as many as ten or twelve successive attacks. She was again sent to a sanitarium at the expense of her relatives. Examination there disclosed nothing of importance generally or neurologically. She got along very well for the first few days having only two or three mild attacks. She then decided that she should have special nursing care and when told that was not possible she became quite upset and began having very hard attacks and having them frequently. She had maintained that during these attacks she was unconscious but observations made after her admission showed conclusively that she was conscious at least of the different persons that were in the room during the attack and some of the things that were said. Another thing that was well demonstrated in this patient was the fact that psychopathic individuals in a hysterical condition are not so apt to protect themselves from bodily injury as others. This girl when she came in had a contusion around her right elbow caused by falling on it in one of her attacks. Despite the fact that this arm was very sore and painful she managed in each attack to fall on it again until the ecchymosis extended for the entire arm's length and the pain excruciating.

The solution of this patient's difficulties is for her first to make an adjustment with her relatives. She has developed a great deal of antipathy for them despite the fact that they have done a great deal for her and that she is dependent upon them now. When this is done she will be better able to make further adjustments that will enable her to take up life again where she

left off before her psychopathic tendencies asserted themselves.

The prognosis in all these cases for recovery from the present attack is good. With psychopathic traits advanced as they are the probability of future disturbances is not small.

It is not to be inferred from these cases and remarks that all patients with hysteria are constitutionally psychopathic. It is intended though to show that a patient that is so constituted will, when subjected to sufficient strain or shock develop a psychoneurosis. It might seem to some that the line dividing a normal and psychopathic constitution is rather finely drawn, and so it is at times. It brings to us very clearly the meaning of the words of the old French Street philosopher as he observed a prisoner being taken to the guillotine, "there but for the grace of God go I."

INTRACRANIAL HEMORRHAGE IN NEW BORN

From Medical Service, Milwaukee Children's Hospital

BY G. F. KELLY, M.D.

Resident Physician

The relative importance of hemorrhagic disease and of trauma as causes of intracranial hemorrhages in the newly born has been at issue in recent contributions on this subject. Since Warwick's¹ report focussed attention on the high percentage of such hemorrhages as the cause of death in early infancy several observers have sought to explain its occurrence. Rodda² demonstrated an increased bleeding time during the early period of extrauterine life. This gave ready support to the idea that the delay in clotting time played a prominent part in the causation of these hemorrhages. Of more recent date, Munro and Eustis³ seek to explain the majority of such hemorrhages as a result of intrauterine "asphyxia." "This asphyxia from whatever cause (pressure on the umbilical cord, rigidity of the mother's soft parts, dry labor, etc.) raises the cerebral venous pressure and produces a venous congestion." They interpret the hemorrhage as an effect of the increased intracranial pressure that follows. These authors are of the opinion that intracranial hemorrhages are but rarely traumatic in origin.

Ehrenfest⁴ convincingly refutes these argu-

ments. He maintains that the primary causes of the majority of intracranial hemorrhages is the mechanical factor of compression of the head during the process of molding.

That an apparently normal birth may be associated with sufficient trauma to cause intracranial hemorrhage seems frequently overlooked. It has been too generally assumed that unless the delivery of an infant was definitely a difficult labor, the assumption of mechanical causes for birth injury was unwarranted. That such is not necessarily so is given additional support by the finding of Sharpe.⁵ In a series of 100 consecutive newborn babies, of which series only fifteen were recorded as being difficult labors, 9% showed free blood in the cerebrospinal fluid.

The following two case histories reported at the March clinical meeting of the Milwaukee Children's Hospital are not uncommon instances of clinical observation. In case number one, necropsy was performed and showed an extensive subdural hemorrhage. The coagulation time of this infant's blood was normal. The infant was a breech labor without any instrumental assistance. In the second case, labor was very difficult with instrumental delivery under anesthetic. Coagulation time in this case was normal.

CASE REPORTS

HOSPITAL NUMBER 12313—SERVICE DR. G. H. FELLMAN

CASE NO. 1

History: Baby S. was admitted to the hospital February 11, 1924 five hours after delivery for the possible surgical treatment of spina bifida. The delivery was a breech without instrumental assistance. Parents were living and well—mother's Wassermann was negative. There were two other children both living and in good health.

Examination: The head was large and somewhat out of proportion to the size of the body. The sutures were separated. The anterior fontanelle extends from the middle of the forehead backward and is continuous with the posterior fontanelle. It was 10 cm. in diameter. Pupils were equal and reacted to light. The heart and lungs were negative to auscultation and percussion. Posteriorly in midline, there was a tumor which extended from the seventh dorsal vertebra

to the sacroiliac joint. This tumor was oblong, 5 cm. wide. The lower extremities showed undue mobility of knee joints backward with limited flexion. Coagulation time 5 minutes.

Course in Hospital: The patient's general condition was not good. Death occurred at the end of 9 days. There were no convulsions.

Necropsy Findings (Dr. E. F. Barta): Body that of an infant 8 days of age (female). Umbilical cord still attaches. Head shows widely separated sutures and very large fontanelles which are connected in the midline. Fontanelles were under increased pressure. There is a tumor mass extending from the 7th dorsal spine to sacroiliac joint and is 6 cm. in length and 5 cm. in diameter. This mass is covered partly by epithelium and partly by granulation tissue which shows a yellowish exudate on surface. Fluctuation present in this tumor mass. Both feet showed a deformity of the equino-varus type. There was some difficulty in producing flexion of the knee joints.

Lungs: No free fluid and no adhesions in pleural cavities. Lungs of a pinkish color and showed no abnormal markings.

Heart: Pericardial sac contained normal amount of clear straw colored fluid. Heart muscle of a normal color and tone. Valves competent. Foramen oval not closed.

Liver: Gross examination shows nothing of note. Color reddish and consistency firm.

Showed nothing of note in the gross examination. Stomach contained yellowish stained food material. Pylorus patent. Intestinal tract showed no gross changes.

Back: Tumor mass incised and a cloudy fluid evacuated. Defective closure of canal shown on exposure of deeper structures.

Brain: Fontanelles widely separated and skull cap removed by cutting along separated sutures. Large bluish tumor mass exposed which extended over right cerebral hemisphere. On sectioning this was shown to be a blood clot. On sectioning the brain, the cortex was about 0.5 cm. in thickness and the remainder of the lateral ventricles of the brain were filled with a clear fluid. A cyst containing clear fluid and about 2 cm. in diameter was found in the region of the velum interpositum. The cerebellum showed no gross changes. On account of the extreme degree of

the collection of fluid all the brain structures were markedly compressed and this also caused the extensive separation of the skull bones.

Anatomical Diagnosis:

Subdural Hemorrhage

Hydrocephalus

Spina Bifida

Double Talipes Equino-varus

HOSPITAL NUMBER 12194—SERVICE

DR. A. KASTNER

CASE NO. 2

History: D. F. girl aged 22 days, was an only child. The parents were living and well. Labor was prolonged and very difficult with instrumental assistance and under general anesthesia. When 14 days old the infant developed convulsions which the first day were limited to the left side but later became general. These convulsions were frequent and of about two minutes duration. There was no cyanosis. Convulsions continued for several days and the baby was brought to the hospital.

Examination: The patient was a fairly well nourished infant of 22 days. Convulsions were moderately severe. Seborrhic eczema over scalp— anterior fontanelle was level and 5 cm. wide— pupils were equal and reacted to light. Ear drums were normal. Throat was not inflamed. There was some dullness over the manubrium sterni. The heart and lungs were normal to auscultation and percussion. The abdomen was negative. There was marked hypertonicity and the knee jerks were active. Spinal fluid was clear, under moderate pressure. Cell count 9 per c.mm.—Globulin slightly increased—sugar .09%. No organisms on smear or culture. Ophthalmologic Examination (Dr. J. S. Gordon). Both discs were normal. Wassermann blood was negative. Coagulation time was 3 minutes. Roentgen-ray of chest revealed an enlarged thymus which was reduced to normal by Roentgen-ray exposure.

Course in Hospital: There was almost constant twitching of face, arms and legs. Convulsions were frequent. Feeding was difficult and vomiting was frequent. The infant lived six weeks after entering hospital.

Clinical Diagnosis: Intracranial hemorrhage. Necropsy was not permitted.

In the first instance, we have presented a patient in whom so far as the original observation was concerned, was not one of hemorrhage. The delivery of the infant was regarded as normal in character. The patient's admission to the Children's Hospital was solely for the management of a spina bifida. The associated hydrocephalus was regarded as that frequently observed in spina bifida. Necropsy revealed an extensive subdural hemorrhage. Given even an assumed normal delivery, it is conceivable that with the ineffective dilatation of the soft parts incident to breech presentation that there should be a very likely opportunity for trauma to the after-coming head. That such is actually the case is no uncommon experience of obstetrical practice. It seems unnecessary to seek further remote causes for such a consequence as is done by Munro and Eustis.

In the second instance there was a prolonged difficult instrumental labor. Ehrenfest's explanation of the mechanical factors involved in head molding make it unnecessary to explain the occurrence of intracranial hemorrhage in this instance by other than the factor of trauma. The lack of necropsy in this instance precludes the possibility of defining the nature of the traumatic effect in this last patient. The two cases seem to be common examples of the relationship of trauma in childbirth to intracranial hemorrhage in the newborn.

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COUNCIL MEETING

The second meeting of the Council of the State Society was held at Hotel Pfister on June eighth. The complete minutes of this meeting will be published in the July issue of the JOURNAL.

THE TREATMENT OF FRACTURES ABOUT THE WRIST JOINT

BY RALPH M. CARTER, A.B., M.D., F.A.C.S.

GREEN BAY

Much has been written on fractures about the wrist joint, and it would seem that at the present time, the treatment of these conditions should be fairly well understood and standardized. But the proportion of end-results leaving something to be desired in the way of complete, or nearly complete functional restoration is still quite large. This entails absolute loss in several ways. In the first place, aside from any other consideration, the individual is put into the crippled class, with, second, frequently economic loss to himself, and indirectly to society; third, since many of these cases occur in industry, and come under the scope of various workmen's compensation acts, the disability must be paid for in dollars and cents by the insurance companies; this cost is charged up to the employer, and eventually the public at large pays it. Consequently additional contributions to this subject are justified if they succeed in awakening interest, lead to closer scrutiny of these fractures, cause greater care to be given to their treatment, and thus reduce poor end-results to a minimum.

Fractures at the lower end of the radius are among the most frequent fractures of bone, and consequently form a large proportion of the cases of fracture which the physician is called upon to treat. They are usually spoken of under the general term of "Colles' fracture," although as a matter of fact, the fracture originally described by this great Irish surgeon as the typical and classical condition, a fracture of the radius about an inch and a half above the lower articular surface, is rarely met with, unless as a result of direct violence. In a recent study of 146 skiagrams of fractures about the wrist-joint (the results of which will be reported later), I found no case corresponding to the classical Colles'.

By far the most frequent injury found in this situation is a generally transverse fracture of the lower end of the radius, *within a half to three-quarters of an inch of the lower articular surface*, with posterior displacement and tilting of the small distal fragment. This constitutes the usual and primary injury; in a very large percentage of the cases, there is also associated a fracture of the

ulnar styloid, with or without displacement. Such is the *typical* fracture, if any are to be described as typical; but from this form, there may be variations, resulting in injuries of greater or less severity, depending somewhat upon the strength of anatomical structures in the vicinity, but more upon the extent and duration of the fracturing force, and readily understandable when a clear conception of the mechanism of the fracture is had. Thus, we may have impaction, comminution, intraarticular fracture, complete dorsal dislocation of the lower fragment with overriding, rupture of the interosseous membrane, with wide separation of radius and ulna, the radial side of the carpus may be pushed up so that the distal extremity of the ulna may occupy a relatively lower position with respect to the bones of the wrist, and in extreme cases, the ulna may be driven through and protrude from the skin; on the other hand, we may have merely a fracture of all or a part of the radial styloid, with no displacement whatever. The so-called "sprain-fractures" fall into this latter class. Occasionally, the small distal fragment of the radius may be displaced anteriorly, establishing the condition sometimes known as the "reversed Colles'." This displacement is extremely rare.

Any of the lesions just mentioned may be met with, and, with the single exception of simple fracture of the radial styloid, naturally add to the gravity of the condition present in any given case. Under such circumstances, and in spite of any form of treatment, we cannot hope for a perfect functional restoration, but must be satisfied to accept a greater or less degree of permanent disability. But I wish to emphasize the fact that the most frequent and usual form of fracture of the lower end of the radius, the one constituting the great majority of all these cases seen by the average physician, is the one described above, namely, *a generally transverse fracture of the lower end of the radius, within a half to three-quarters of an inch of the lower articular surface, with posterior displacement and tilting of the small distal fragment, and with or without impaction*. Results of proper treatment of this variety of fracture should be good, in the great majority of cases, except in aged patients, when some stiffness and limitation of motion may naturally be expected. And the essentials of

proper treatment are two in number: 1. Immediate and complete reduction, breaking up impaction, if present, and 2. *Early passive motion and massage*. Either one of these procedures will fail to give the best results if the other is lacking, but intelligently employed together, they achieve success in the great majority of cases, with satisfaction to both physician and patient. I shall consider them later in more detail.

Fractures of the lower extremity of the radius are common to both sexes, and are a fracture of adult life; that is, practically all of them occur after the age of twenty. Below this age, we have to deal either with a separation of the radial epiphysis, or with a fracture of the radius at a higher level, usually two to four inches above the lower articular surface. As a rule, the violence producing them is indirect, and the great majority of them result from falls upon the outstretched, hyperextended, pronated arm and hand; with the extensive use of the gasoline engine, a large number also are produced by "kicks" from back-firing during the act of cranking. They may be produced by direct violence, although in such a case, the fracture is usually higher up.

For the intelligent reduction of this usual type of fracture at the lower end of the radius, a clear conception of the mechanism of its production is necessary. This mechanism always operates under the usual conditions attending these fractures, and when certain anatomical features of the wrist-joint and lower end of the radius are considered, it will be seen that the fracture here discussed is the only one which can occur under these conditions.

Turning to these influencing anatomical features, the first one is the structure of the expanded lower end of the radius. This is made up largely of spongy, cancellous bone, with a comparatively thin superficial shell of compact tissue. Such a structure will withstand direct shocks excellently; but when an *evulsive* force, such as enters into this mechanism, comes into play, the same structure constitutes a *locus minoris resistentiae*, and the end of the bone is torn off through this cancellous tissue. Next, we have the bones of the carpus and the metacarpals, bound so closely together by strong ligaments that but very little motion is permitted between the individual bones, and moving practically as one bone in flexion and extension at the wrist.

Finally, we have the strong anterior radiocarpal ligament, arising from the bones of the carpus, and inserted into the radius and ulna about a quarter of an inch or more above the articular margin, with strong oblique fibers to the ulnar and radial styloid processes, the latter forming a prominent anterior lip to the articular surface of the bone.

Keeping these facts in mind, let us assume a fall as the exciting cause of a fracture. The arm is outstretched with the hand in pronation, as the individual makes an effort to break the force of the fall. As the hand strikes the ground, the wrist is forcibly hyperextended, leading to a condition of overextension in the anterior radiocarpal ligament. The metacarpals and small bones of the carpus, acting as one bone according to the explanation given above, constitute one lever, the radius forming the other. The force continues to act, tending to further hyperextend the hand at the wrist, and being prevented by the tense, tough anterior radiocarpal ligament. The power exerted by the long radial lever is enormous; under such circumstances something must give way; in the overwhelming majority of cases, the radius yields before the ligament, and fractures transversely through its cancellous extremity, at or just above the point of insertion of the ligament, the small distal fragment being literally torn off. The strain upon the upper lever is nearly transverse to its long axis, which determines the direction of the line of fracture. Having been torn off, the small fragment moves with, and is carried backward by the carpus, thus giving rise to the usual displacement. Frequently the periosteum on the dorsum of the radius is not torn through, but is merely stripped up by the displacement of the lower fragment, and becomes a tense band when the hand and wrist again resume a normal position. This fact has a bearing on the reduction of the fracture, and will be referred to again. The rare "reversed Colles'" is produced by the same mechanism acting with the wrist in flexion instead of extension.

The above constitutes a very brief outline of the mechanism of production of the usual fracture at the lower end of the radius; however, it is sufficient for the purposes of this paper, which is principally concerned with treatment. Let it be understood, however, that practically all of the fractures about the lower ends of the radius and

ulna, produced by indirect violence, from simple fracture of the radial styloid, fracture of the radius at the customary site with no displacement, fracture with displacement together with fracture of the ulnar styloid, fractures with impaction, fractures with splintering of the lower fragment, with marked displacement of the carpus and lower end of the ulna, all these fractures, by a careful analysis of the forces at work and a consideration of the strength of the fibers of the anterior radiocarpal ligament, can be shown to have their origin primarily in the mechanism just described.

The diagnosis of these fractures, as a rule, should present no difficulty, particularly in the presence of displacement. The latter gives rise to the characteristic "silver fork deformity," which is too well known to require description. In the very rare "reversed Colles," the displacement of the lower fragment is anterior, in which case the deformity is on the anterior aspect of the wrist instead of on the posterior. In the absence of displacement, a definite, sharply defined line of exquisite tenderness, best outlined by means of pressure with the end of a lead pencil, is almost pathognomonic of fracture. Of course, the x-ray resolves all doubts, and should always be used when available; in passing, it might be added that today the x-ray is always available, although at times, at the cost of some inconvenience to patient and physician. This should be no excuse for haphazard work, however.

In the treatment of these cases, the only ones not requiring an anesthetic are those comprised in the small number with no displacement whatever; all others should receive general anesthesia, for complete correction, if possible, of any existing displacement, however slight, is an essential factor in successful treatment, and in order to accomplish this, muscular relaxation must be secured and the surgeon allowed to work unhindered. The importance of this complete correction may be appreciated when the complicated displacement present in the average case is considered. It is not a simple backward displacement of the lower fragment. In the first place, this lower fragment is carried backwards and a little upwards, as a result of the direct violence at the moment of fracture; secondly, as a rule, in falls particularly, due to the fact that the main

violence is received by the thenar eminence in the extreme pronated position of the hand, and also due to the fact that the ulnar side of the radius is more or less firmly attached to the ulna by the inferior radio-ulnar ligament, while the radial or outer border is free, this outer side of the lower fragment is displaced more than the inner; the wrist and hand follow the small fragment, leading to a greater or lesser degree of abduction; and lastly, in addition to displacement of the lower fragment *en masse*, it also undergoes some rotation about a transverse axis, with the result that the articular surface is directed posteriorly as well as downward. Since any one of these displacements will give rise to interference with the function of the wrist-joint, by changing the plane of the radiocarpal articulation, the importance of complete reduction becomes readily manifest.

Several things combine to maintain the deformity, once it has been produced. First, as was mentioned above, very frequently in these cases, the periosteum on the dorsal aspect of the bone, instead of tearing through, is simply stripped up, and remains attached to both fragments; when the hand and wrist come out of their hyperextended position to the normal carrying position, it forms a tense band tightly stretched over the posterior edge of the lower fragment, and tending to pull the latter tightly against the upper. Second, the same kind of force is exerted by a spasmodic contraction of the radial extensor muscles. Third, we may also have impaction, in addition to the above.

Such being the case, with the patient anesthetized, to effect reduction, we put the wrist in the position it occupied at the moment of fracture, that is, in extreme hyperextension. This immediately relaxes the periosteum and muscles, and allows any impaction present to be broken up by manipulation, after which the lower fragment may usually be forced into position by pressure over it. Once reduced, the deformity shows little tendency to recur.

Let it be understood that I am here speaking of the reduction of the usual fracture, the case in which the lower fragment is not splintered, and in which the simple dorsal displacement is present; these cases constitute the large majority of all encountered. When we have marked comminution of the lower fragment with extensive involve-

ment of the articular surface, great abduction of the hand, possibly fracture of the shaft of the ulna, or other serious complications, it then becomes a question of doing the best we can under the circumstances; the fragments must be manipulated into their proper positions as near as possible, and then attempts made to mold them into shape. Even in such cases, with careful and painstaking after-treatment, the results are frequently surprisingly good.

On the other hand, in simple fractures of the radial styloid, the majority show no displacement, and simple immobilization is all that is required, but the after-treatment should be the same as for the severe ones.

Having the fracture reduced, it must be retained in position until healing is fairly well advanced, and for this purpose, the simplest apparatus, and one that is readily removable, is the best. Plaster of Paris is in quite general use, but unless great care is taken in its application, it may not do all that is required in maintaining the fragments in good position; a cast is also cumbersome. For most cases, I believe that light anterior and posterior wood splints are sufficient; the anterior one extends from just below the elbow to the heads of the metacarpals, the posterior one occupies a corresponding position on the back of the arm and hand. The anterior one should be cut out to allow for the thenar eminence; the posterior one cut out for the head of the ulna. Both should be well padded, and in addition, a small pad should be placed beneath the posterior splint at the site of fracture to prevent a recurrence of the displacement, and anteriorly, the space between the head of the radius and the splint should be filled in with one or two extra pads, to prevent a dropping forward of the head of the radius. The splints are applied with the hand and arm in a position half-way between pronation and supination, and the hand slightly adducted; they are held in place by adhesive plaster strips, and a bandage put over all. Dressed in this way, the arm should be perfectly comfortable; any marked pain, any throbbing, any blueness, coldness, or numbness of the fingers, is an indication that the dressing is too tight, and the condition should be immediately remedied. The patient should be informed of this, and instructed to report any of the above

signs of symptoms at once, should they appear. Whenever possible, he should be kept in the hospital for the first day or so under the constant supervision of a trained house physician or intelligent nurse, since real and lasting damage to the circulation can occur in a few hours. The dreaded Volkmann's contracture, while appearing usually following the too tight application of splints and dressings in fractures about the elbow and upper part of the forearm, nevertheless sometimes shows up following fractures about the wrist, and the prevention of this disastrous complication is well worth a little extra attention. In any event, if the patient cannot be kept under constant observation, the dressing should invariably be inspected within 24 hours following its application.

At this point begins the after-treatment, and it covers the time until the patient is discharged. It is just as essential for a good functional result as the immediate treatment outlined above. It consists in *judicious, early passive movements and massage*, active movements being added later. The importance of this after-treatment can be readily appreciated if we consider a cross-section of the arm through the lower end of the radius. When the close relationship of the various important structures in this region is realized, it will be seen that the associated pathology of the soft parts may have as much to do with a poor functional result as the fracture itself. The flexor and extensor tendons lie immediately anterior and posterior, respectively, to the radius and ulna and the carpus. Hemorrhage, serous effusion, leucocytic infiltration into and about these tendon sheaths may readily give rise to adhesions, leading to limitation of motion; if they occur into the carpal articulations, or the muscles, may occasion a chronic arthritis or myositis, with impaired function in the wrist-joint as a result of pain and stiffness. All of these conditions are undoubtedly present in every fracture in this region, to a greater or less extent, depending upon the severity of the lesion. They are not necessarily nor usually the result of direct injury to the associated structures by the fragments of bone (although such may be the case occasionally), but represent the reaction of the surrounding tissues to injury in their neighborhood. Since this is the case, the importance of treatment

directed to these surrounding tissues and structures becomes readily manifest. And it is here that passive motion and massage exert their effects, the former by preventing tendon and joint adhesions, the latter by causing the absorption of exudates and hemorrhage, and hastening the healing process.

This treatment should be begun by the third, or at the latest, the fourth day, using the utmost gentleness. The dressing should be removed completely, and very light massage and very slight passive motions instituted. Five minutes of this is sufficient for the first sitting and absolutely no pain should be caused; the dressing is then replaced. This same procedure is repeated every other day, at each sitting lengthening the time of massage a trifle, and slightly increasing the amplitude of the passive motions, always being extremely careful to avoid giving rise to any pain whatever. If the treatment can be carried out daily, so much the better; but in the average case, where expense is usually a large factor, every other day will have to be sufficient. By the tenth day, the anterior splint may be discarded altogether, and by the fourteenth, the patient may begin gentle active movements, in addition to the passive ones. A few days later, or by the end of the third week, the posterior splint may be taken off, a firm supporting dressing of gauze and adhesive tape being applied about the wrist at the site of fracture. The sling, however, should be retained, and the patient instructed as to how to carry the arm in it in the absence of splint control of the position of the arm; the latter is held in the mid position between pronation and supination, and the edge of the sling comes just below the lower end of the ulna, so that the hand and wrist, by their weight, naturally assume an adducted position. Passive and active motions and massage should be still continued, as above outlined.

By the end of the fourth week, union should be firm enough for the patient to begin to use the wrist for light household tasks, or in the curative workshop, if such is available; however, this early activity should involve absolutely no strain on the newly formed bone at the site of the fracture. The average case should be able to return to light manual labor at the end of six weeks; but full, heavy work, involving marked strain and stress on

the wrist, should not be attempted before the tenth or twelfth week.

This outlines, briefly, what to my mind constitutes the modern treatment of fractures of the lower end of the radius, and about the wrist-joint. I have made no attempt to discuss the subject exhaustively or in detail, as it is neither necessary nor desirable in a paper of this character. Particularly, I have made no mention of operative treatment. For speaking generally, it has no place in recent fractures in this situation, and furthermore, is too broad a subject to be treated here. I have written merely with a view of emphasizing certain essentials of treatment which I believe are often overlooked, or at least not accorded the importance they deserve, and which, if conscientiously carried out, will materially improve our end results.

MANAGEMENT OF OCCIPITO-POSTERIOR POSITIONS

BY CARL S. HARPER, M.D.

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MADISON

Posterior positions of the occiput are very commonly associated with labor and occur with sufficient frequency to present one of the most annoying problems of obstetrics. Posterior positions may be defined as those in which the smaller fontanelle points toward the sacro-iliac luxation or lies in the hollow of the sacrum. Their frequency varies with the watchfulness of the observer, and the time in labor at which the diagnosis of position is made, as the majority of right occipito-anterior positions start as posterior ones and have rotated spontaneously, either early in labor or so easily that there has been no delay of progress.

The rate of occurrence is ordinarily given as 20 per cent, which is a very conservative estimate. The occiput seldom rotates to the hollow of the sacrum, the sagittal suture most frequently lying in the right oblique diameter of the pelvis, and occasionally in the left.

Posterior positions may be divided readily into two types, persistent and nonpersistent. Nonpersistent posterior positions offer little more of a problem to the physician than anterior positions. They often give no difficulty, except a mild delay

in labor. Persistent posterior positions, with the exception of those in which delivery, as such, is occasionally spontaneous and easy are very trying to the patient, the fetus, and the obstetrician.

The distinction between the two types of posterior positions is one of time, and for practical purposes those may be regarded as persistent in which progress of labor is so materially delayed that interference is justifiable. Each case constitutes a distinct problem and must be carefully worked out on its own merits. A posterior position in a primipara, in whom labor is active and progress scant for from twelve to fifteen hours, must fall in the persistent class. This presupposes, of course, the absence of other demonstrable dystocia. Progress is judged by the descent of the head and cervical dilatation. When the head comes low and the cervix dilates readily, rotation is usually spontaneous. Spontaneous correction is extremely slow when the head remains above the perineum and there is a thick, slowly yielding cervix.

In multipara, posterior positions very seldom offer a serious problem, while in primipara they are a very frequent cause of difficult labor. In any type of case, if there is accompanying disproportion in the cephalo-pelvic relationship, the problem is increased accordingly.

Diagnosis of posterior positions, while always possible, is overlooked more often than that of any other position. A slow, nagging labor, with excessive pain in the back, early rupture of membranes, a fetal heart beat which is heard well into the flank, particularly on the right, and a right position of the back with prominent small parts should strongly suggest posterior position. Actual confirmation must be made vaginally and often can only be definitely determined by localization of a fetal ear. This latter procedure is not practicable without anesthesia.

The mechanism of posterior positions of the occiput may be summed up briefly. Rotation occurs if the fetus descends sufficiently far to meet perineal resistance; hence, if the head descends readily, rotation occurs readily. If rotation is forward, a turn of 135 degrees brings the head under the symphysis. If rotation is backward, the head comes to lie in the hollow of the sacrum, after a turn of 45 degrees. Backward rotation occasionally occurs when the anterior

fontanelle happens to be the lowest portion of the head and is consequently turned forward bringing the occiput in the sacrum.

The chief reason for delay in cases of occipito-posterior positions is the tendency of larger diameters of the head to come into engagement with the pelvis, and the impossibility of proper flexion occurring without anterior rotation of the occiput. Hence, a vicious circle occurs; no rotation, no flexion; no flexion, no accommodation of diameters and no progress; no progress, no rotation.

In a large majority of occipito-posterior positions, occurring in all cases the fetus usually rotates forward spontaneously without undue delay. Since primipara present the majority of cases in which difficult labor is owing to failure of the fetus to rotate spontaneously, any discussion of occipito-posterior positions is largely confined to primipara.

In cases of failure of the fetus to rotate forward, the problem of management may be met by one of the following methods: (1) The fetus may be delivered in posterior positions as such by forceps; (2) the fetus may be rotated by forceps and delivered by a combination of rotation and traction, using the Scanzoni procedure; (3) rotation may be aided by a vectis; (4) the fetal head may be rotated manually in the pelvis to an anterior position and forceps applied; (5) earlier in labor an anterior position may be attained by disengaging the head, rotating 180 degrees above the pelvis, and then allowing the head to re-engage in the same oblique diameter; (6) version may be performed.

These various solutions of the problem may all have a place in certain cases; certainly no one method is apt to be a choice for every posterior position of the occiput. The very small class of patients with ample space and sufficient power who are delivered spontaneously with the occiput posterior, need not be considered as problems except possibly from the standpoint of laceration.

The early stages of labor in posterior positions are handled as in other positions, appropriate measures being taken for relief of pain and fatigue. Rest should be insisted upon as at best these labors are long, and an exhausted patient is a poor candidate for successful termination. Diet should be dictated according to the capabilities of

the patient. Sedatives are often needed to secure rest and relief from pain.

Many patients are delivered by forceps without rotation, or such deliveries are at least attempted, frequently in the mistaken belief that the position of the occiput is anterior. This form of delivery is often ineffectual. If it is accomplished, it is frequently very destructive to maternal tissues and dangerous to the fetal head, except in those cases of ample space and full cervical dilatation. Lacerations into the rectum are commonly seen in patients delivered by this method. Delay in labors in which the position is posterior is usually a first stage delay. The strenuous use of forceps as tractors in these cases should be heartily discouraged, since severe damage to the maternal soft parts is the inevitable result. If for some reason hasty delivery is necessary and forceps extraction is decided upon, incision and later repair of both cervix and perineum are less disastrous. This is one type of case in which the extreme, lateral perineal incision described by De Lee is of value.

Rotation of posterior positions by forceps may be accomplished by: (1) Using one blade as a vectis thus replacing the perineal resistance to the occiput; (2) combining gradual rotation and traction until the head either completes rotation spontaneously or until the forceps may be re-applied in anterior position; (3) rotating the head abruptly to a right anterior position and then re-applying the same or other forceps, meanwhile holding the occiput forward with one blade (the two-forceps operation recently described by Seides), by hand, or by a tenaculum as suggested by De Lee. When these methods are used early enough in labor appropriately to relieve the situation, they usually conflict with fair treatment of the maternal soft parts and, if ineptly performed, are capable of great damage to both mother and child.

The method of intra-pelvic rotation by hand usually necessitates prompt application of forceps to maintain the rotation, as the occiput usually reverts to the posterior position the instant the hand is removed. Furthermore, it is applicable only when the head is readily movable in the pelvic cavity. Podalic version, if the uterine musculature permits its performance, may be a very easy solution of the problem, provided the

extraction is not hastened unduly and there is sufficient pelvic room with a favorable cervix. The cervix should be fully dilated or allowed to dilate with the patient's pains, following the version. Version is usually much easier than a difficult forceps operation and safer for the maternal soft parts. Since Potter has recently brought version and extraction into the limelight they will undoubtedly find a wider field of usage than heretofore. However, if too optimistically greeted by all who practice obstetrics, version will be productive of a much greater infant mortality rate than prevails at present.

The method of manual rotation of the occiput above the brim of the pelvis, through an arc of 180 degrees, is one which appeals to me as the most satisfactory in selected cases. This method has been most clearly demonstrated by Pomeroy, who has produced a definite technic for its performance, and it has many advantages. It is preferable when delay in labor is manifest, when the decision has been made to deliver the patient by the vagina, and when there is no need for great haste. The best time for rotation, once its ultimate performance has been decided upon, is when the cervix is sufficiently dilated to permit the passage of the hand without laceration. In common with all intra-uterine procedures, intact or but recently ruptured membranes are an advantage; they invariably rupture during the rotation.

The patient is prepared as for any type of delivery, except for sterile drapery, anesthetized to the point of surgical relaxation with ether or chloroform, and the legs supported, preferably by attendants, in a position of moderate flexion. The operator should wear the long, obstetrical gauntlet glove, fitting closely about the arm. A gown is unnecessary. After the patient is catheterized, the operator gradually dilates the perineum, using the hand whose palm corresponds to the face of the fetus; for example, in a right occipito-posterior position the right hand is used. Sterile green soap is copiously employed as a lubricant. The dilatation usually takes from five to fifteen minutes depending on the resistance of the tissues. As the vertex is encountered it is gently pushed out of the pelvis above the brim and the hand introduced gradually through the cervix, care being taken not to lacerate that structure.

Uterine contraction rings about the neck, frequently found in delayed labors, usually relax under deep anesthesia sufficiently so that the head may be easily disengaged. When the head is above the brim a careful examination is made to detect any prolapsed loops of cord. If any are found, they should be replaced or suspended from a convenient extremity. The hand is then slid around to the base of the occiput, the occiput resting in the palm with the thumb and fingers over the corresponding mastoid regions. The free hand seeks out the anterior shoulder through the abdominal wall and assists the internal hand in rotating the child. The vertex is rotated 180 degrees, that is, from a right occipital posterior to a left occipital anterior, and then allowed to re-engage in the new position, which permits the sagittal suture to remain in the same oblique diameter of the pelvis. As soon as the rotation is complete, anesthesia is discontinued and a snug abdominal binder is adjusted, a pad against the anterior shoulder aiding in its maintenance. The vaginal hand is held in place until the head is again firmly engaged, care being taken to avoid injury to the operator's thumb which is between the symphysis and the head. Gentle suprapubic pressure to engage the head is permissible. As the vertex again enters the pelvis it may be flexed to good position and allowed to expel the vaginal hand as it descends.

The patient is stimulated to recovery by a thorough dilatation of the sphincter ani which leaves that muscle relaxed, an advantage in later delivery as it lends a certain amount of relaxation to the perineal structures and in case of severe laceration avoids damage to its fibres. The patient is allowed to resume labor, her progress often being astounding, and always vastly improved. As a rule these patients proceed to full dilatation in from half an hour to two hours after the resumption of pains, and the second stage is often much shorter due to the preliminary dilatation. The most favorable result is spontaneous delivery within an hour or two, the least favorable is a comparatively simple low or mid-forceps delivery.

The advantages of the above procedure are obvious. It may be done early in labor, when forceps are not permissible nor practicable; thereby greatly shortening the total duration of

the labor. It may be done with a minimum danger of trauma to both the maternal soft parts and to the fetus and prepares the soft parts in a manner favorable to the second stage. If forceps are required later, it facilitates their employment by rendering an easy application. I have found it successful in obviating many of the problems offered by posterior positions of the occiput and in my experience it has never been followed by untoward sequelae.

It has the disadvantage of any intra-uterine procedures. A psychic disadvantage is that when the patient rouses from her anesthetic she has not had her baby, but her morale is usually restored by encouragement, and the improvement in progress of labor.

SUMMARY

Careful and early diagnosis of all possible causes of delayed labor should be made, always keeping in mind, especially in primipara, that posterior positions of the occiput are very common.

Progress of labor should be closely followed with frequent "check ups" by the physician, not left to untrained observers. Most "obstetrical wrecks" are occasioned by faulty, or entire lack of observation.

While every obstetrical case is a law unto itself, and no fixed rules can be laid down for management, in selected cases manual rotation of the occiput above the pelvic brim is the method of choice in occipito-posterior positions requiring interference.

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CALL FOR COMMITTEES

Each county society has been asked to appoint a committee on public policy and legislation with representation from each county in the society. When all committees have been appointed the state committee will confer with them to secure their advice on matters that will be before the coming session of the Legislature.

NEWER ASPECTS OF THE HAY FEVER PROBLEM, WITH SPECIAL REFERENCE TO PREVENTIVE TREATMENT*

By ABRAHAM R. HOLLENDER, M.D.

CHICAGO

All observers are more or less agreed on the existence of some peculiarity of the constitution in the production of hay fever. What this peculiarity or dyscrasia is, has at best been speculative. Early writers, in search for an explanation, were wont to attribute it to heredity, pre-existing diseases, neuroses, and a host of other conditions. But at no time has the answer proved rational enough for general acceptance.

THE EXTRINSIC CAUSES OF HAY FEVER

Failure to establish a scientific systemic basis for hay fever led investigators, during the past decade, to turn their attention toward the extrinsic factors. While these were recognized as early as 1819 by Bostock, who first described hay fever, it was not until 1873 that Blackley definitely established the pronounced effects of plant pollens as external irritants. Since then much has been said and written regarding pollens and proteins and desensitization has occupied a very prominent position in the therapy of hay fever and its allied diseases.

No argument is ventured regarding the part played by proteins and pollens as external irritants or excitants in the manifestation of hay fever and its distressing symptoms. However, the results with desensitization in the prophylactic and curative treatment of the disease have not warranted the high regard with which this therapy has been held. Certainly they have not earned for it the promiscuous use of the term "specific." Again, the indefinite, time-consuming plan of determining the particular protein or pollen, or combinations of them, to which a patient may be susceptible, together with the many other difficulties encountered in this work, has clearly demonstrated that to all intents and purposes, it is not the finished product.

CHARACTERISTICS OF THE NASAL MUCOSA NASAL PATHOLOGY

A general unanimity of opinion also exists regarding a hypersensitive condition of the nasal mucous membrane. Whether this hypersensitive state of the nasal membrane requires any local interference is problematical. My experience in handling a large series of cases has proved that the final results are the same whether or no local measures are instituted. The appearance of the nasal mucosa of a hay fever patient any time during the year tells the story in most instances. The membrane may be truly characterized as anemic. It is pale, bluish-like and shiny.

A consideration of the nasal pathology must not be avoided because herein undoubtedly lies much that will at a future time be of great value. I have reference to the permeability of the membrane of hay fever subjects as compared with that of people free from this disease, and also, in this connection, the relationship of the tonicity of the nasal secretions. A report on a study of these problems will be submitted at a later time. At present it is a well established fact that septal deformities, infected sinuses, diseased turbinate bodies, etc., have a marked influence not only in the manifestation of hay fever, but also in retarding the progress which one anticipates in the treatment, if these are not properly cared for. Infections in the pharynx such as diseased tonsils, and adenoids, pyorrhea, and other suppurations of the teeth and gums, and in fact, suppurative or infected processes anywhere in the body, exert deleterious influences, and cognizance of these, although only contributory factors, is of vital importance.

SIGNIFICANCE OF BLOOD CALCIUM IN HAY FEVER

In offering an explanation for the systemic element, I wish at this time to give due credit to my esteemed colleague and former associate, Dr. Frank J. Novak, Jr., of Chicago. It was while associated with Dr. Novak that we conceived the idea of measuring the blood calcium in hay fever patients because of the apparently good results obtained with salts of calcium, purely on an empirical basis. The blood calcium was found to be low in about 60 per cent of seasonal hay fever cases and in 100 per cent of the perennial type.

*Read by invitation before the Clinical Society of the American Hospital, Chicago, May 1, 1924.

The blood calcium in the perennial type of hay fever (hyperesthetic or vasomotor rhinitis, pseudo hay fever), is invariably below the standard figure of 10.5 mg. per hundred c.c. of blood serum. These figures for the seasonable type varied from 8.18 to 11.2. The blood in all of this series was collected during the hay fever season, when patients were at their worst. The blood in the perennial type was collected at various times of the year. Since this preliminary report was published, occasion has been taken to measure the blood calcium in hay fever subjects, out of season, and while a large enough series has not been collected to tabulate the findings, the figures are low and below the standard in about 75 per cent of the cases.

EXPERIENCES WITH CALCIUM THERAPY

This deficit in blood calcium gives a certain indication for calcium therapy and suggests at once a disturbed calcium metabolism. Calcium deficiency indicates even more—it means an underlying toxic state, or state of toxin absorption. The empirical administration of calcium in its various salts, or in solution or emulsion as it is offered in proprietary preparations, in the main has given beneficial results. However, a rational basis for calcium therapy, has heretofore not been suggested. An interesting observation and one which has been noted by several investigators of late is that when calcium is administered alone, the results are only temporary. Groves and Vines in conducting their experimental work on leg ulcers observed this and later H. H. Scott in treating cases of sprue made similar observations. Scott writes, "The administration of calcium lactate led to temporary improvement only, but when parathyroid extract was given all the more acute symptoms disappeared and the patients got well and remained well. Scott points out that the amount of calcium in the blood does not depend solely, or even in the main, on the amount of calcium salts taken in the food or as medicine, but on the efficiency of the calcium regulative mechanism—the parathyroids with their two-fold function of detoxication and regulation of calcium metabolism."

SEASONAL AND PERENNIAL HAY FEVER

These factors are more or less the same in sea-

sonal and perennial hay fever. Perennial hay fever or so-called hyperesthetic or vasomotor rhinitis, is a condition frequently taken to be a "head cold" and is neglected because there is little significance attached to it at the time. Its persistence throughout the year, summer or winter, whether on land or sea, with its annoying paroxysms of sneezing and nasal discharge, finally impells the one afflicted to seek relief. In these respects it differs from the seasonal type—brought about by the irritants of plants, grasses and pollens of one type or another at a definite period each year. The non-seasonal or "all year round" hay fever may be excited by such irritants as dust, powders, fumes, etc. This is simply the local phenomenon and is readily overcome when the constitutional peculiarity is corrected.

PREVENTIVE TREATMENT

In the past the treatment of hay fever has been conducted chiefly during the hay fever season and purely for palliative effects. It is true, many attempts have in late years been made to teach prophylaxis and the treatment begun six weeks or so before the height of the season. But the results of desensitization with protein and non-protein therapy have, in the hands of the profession as a whole, been disappointing. As this has caused much skepticism among the laity, hay fever subjects have frequently confessed that they would much prefer to seek relief by change of environment or suffer through the season rather than submit to a score or more of dermal or intradermal tests.

To wait until the very approach of the hay fever season to carry out a plan of prophylactic treatment is illogical. If the principles of the treatment are sound, one should be able to carry it out at any time during the year with the same effect. Such is the method I am advocating. If a hay fever patient is low in blood calcium, this finding before treatment is more or less constant. And if a state of toxemia exists, based on some local infected process, in the head or elsewhere in the body, this condition, although latent, is the same at one time of the year as another. Is there any reason then why the calcium deficiency and its associated toxemia cannot be treated in January as well as in May or June? The fact of the matter is that prophylaxis offers its best

virtues when the body is free from active or acute disease. This has been demonstrated frequently.

The prevention of seasonal hay fever consists in a definite well organized plan of treatment. Without entering into much detail the steps may be enumerated as follows:

1. Hospitalization of patient during entire course of treatment.
2. Measurement of blood calcium.
3. Complete eradication of every possible active or latent focus of infection, medically, surgically or otherwise, irrespective of location.
4. Administration of calcium, either as chloride or lactate, orally, intravenously or intramuscularly, depending upon the individual case.
5. The concomitant administration of thyroid extract, or parathyroid substance, preferably the latter if it is known to be a reliable product.
6. The permanent fixation of the blood calcium by ultra violet energy.

THE SIGNIFICANCE OF THYROID OR PARATHYROID THERAPY

Why thyroid or parathyroid in combination with the calcium salt? This question has been asked repeatedly. It is for this reason that it is necessary to repeat some of the preliminary writings on this phase. As mentioned earlier in this paper, Groves and Vines, after failing to achieve any results from calcium alone, gave in addition parathyroid substance by mouth, in the treatment of leg ulcers, and with this treatment immediate improvement took place. In treating sprue, Scott found the same thing to be true. The experiences of Novak and myself in hay fever and asthma were much the same as those of investigators in other calcium deficiencies, although we found that thyroid extract, if a good reliable product is had, produces the good results and more consistently so, than is to be obtained with unreliable parathyroid substance. It is appreciated, however, that parathyroid extract is the product which is more active providing it is fresh and properly prepared. These provisions are made because there are too many organotherapeutic products now marketed which are inert and unproductive of results. Recently efforts have been made by Vines to standardize parathy-

roid substance and undoubtedly time will bring a much improved and more dependable product.

The dosage of thyroid varies from 1/100 to 1/2 grain, from one to three times daily, combined with calcium lactate, grains five, if the latter is given orally, or 5 c.c. of a 5 per cent calcium chloride solution intravenously, if this latter route is preferred. The intravenous therapy is carried out every other day, at first, and later, less often. The intravenous dose in subsequent treatments is increased to 10 c.c. sterile solution.

The rationale of thyroid and parathyroid therapy is fully discussed in a previous communication, so that reference may be made to it by those who are especially interested in this phase. The fact remains that parathyroid substance is given because it has proved to be a regulator of calcium metabolism and a detoxicating agent.

THE ROLE OF ULTRA VIOLET ENERGY IN THE PREVENTION OF HAY FEVER

While good results were obtained by the exclusive use of the drug therapy in conjunction with the other steps outlined, better and quicker and more lasting effects were had when the energy of the mercury vapor quartz lamp was finally depended upon. That ultra violet irradiation is the ideal regulator of calcium metabolism is not to be questioned. From the experiences of workers in the field of pediatrics in treating rickets, tetany, and certain other conditions, one is warranted in saying that the energy from the quartz lamp is a reliable agent in fixing the calcium content of the blood.

In rickets the work of A. F. Hess and L. J. Unger has demonstrated conclusively the value of ultra violet energy. The reports of certain foreign research workers also are convincing. An editorial in the *Journal of the American Medical Association* a short time ago on Rickets and Tetany says: "Rachitic symptoms can be averted in many instances through exposure of the susceptible individuals to sunlight or ultra violet rays; and cures can be effected when the signs of the disorder have already made their appearance."

Thus, rickets, a metabolic disorder, is considered curable by means of ultra violet therapy. Rickets has been shown to be a calcium deficiency disease. The blood chemistry findings in many hay fever cases correspond with the findings in

rickets. Hay fever, then, may be considered as an analogous condition and, therefore, should yield to the same treatment, viz., ultra violet ray.

METHOD FOR USE OF ULTRA VIOLET RADIATION

The Alpine Sun Lamp has proved efficient in the application of the ultra violet ray. The lamp usually reaches its maximum intensity in from five to seven minutes. It should not be applied until this point is reached. The distance between patient and lamp should be about forty inches, although this may be reduced gradually at each successive treatment. The gauge is the skin reaction and general tolerance of the patient. The initial application should not be over one to three minutes, gradually increased at each sitting until a maximum of fifteen or twenty minutes is reached.

In rachitic disease, experimentation demonstrated that exposure to the ultra violet ray for preventive purposes need not be long, three minutes daily being sufficient. For curative purposes, the time was longer, but not as long as that suggested for hay fever. In this respect only does the technic differ from that of rickets. The exposures are made daily or on alternate days—the skin reaction always acting as a guide. Each time application is made over a different part of the body, commencing with the neck and chest. After the entire body has been rayed, the same areas are again exposed.

SUMMARY

1. Observers are more or less agreed on the existence of a systemic dyscrasia which is the underlying basis or intrinsic cause of hay fever and its allied diseases.

2. The extrinsic factors or irritants are pollens, proteins, etc., in the seasonal type of hay fever, and powders, fumes, foods, etc., in the perennial type.

3. The appearance of the nasal mucosa is characteristic. Nasal pathology must have due consideration.

4. The significance of a low blood calcium content has been demonstrated. This calcium deficiency is undoubtedly the answer to the "constitutional element."

5. Seasonal and perennial hay fever or hyper-

esthetic rhinitis must be properly differentiated, although the treatment is practically the same in most instances.

6. The prophylactic management consists of a definite organized program.

7. Thyroid or parathyroid therapy meets a definite indication supported by the results obtained by many reliable investigators in analogous deficiency diseases.

8. The role of ultra-violet energy in the preventive and curative treatment of hay fever is for most purposes identical with its application in rickets.

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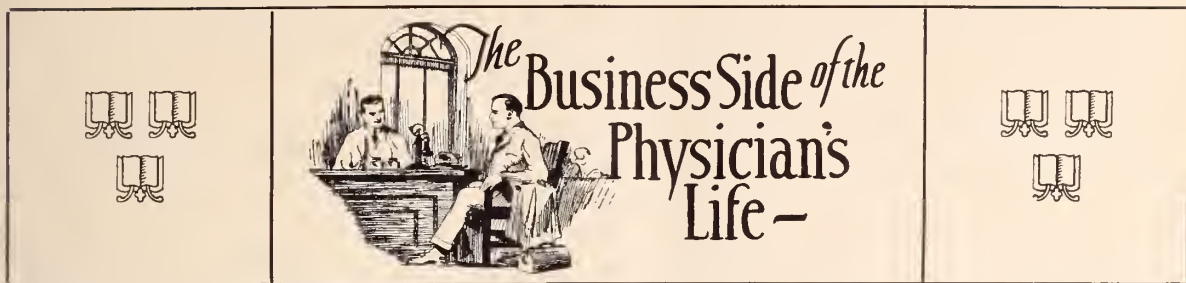
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A very smooth talking salesman has just left my office.

He's been trying to sell me some stock in a new company that has been organized to market a device that is going to "revolutionize the industry"—they always do that, you know. I believe that he is perfectly sincere about it. He *believes* that this device has all the future that he says it has, and he talks convincingly. There are salesmen like that you know, men selling worthless stuff but with an absolute faith in its merits. It's a sort of self-hypnotism that they get all snarled up in.

Not long ago I met a salesman whom I have known for many years and in whom I have always believed. He told me that he had been selling stocks for a company that had a meteoric career a few years ago. It soared like a rocket and came down the same way.

He said that he had made a great deal of money while working for this company, more money than he had ever dreamed of making. But when he left them, he was flat broke and had sunk every cent of his earnings as well as mortgaging his home.

"You see," he said, "every morning before we started out, we salesmen were put through a short schooling. We were worked on by high powered enthusiasts until they had us so convinced that the stuff they were selling was the best in the world that we would sail out and tackle the devil himself. More than that, we got to believing the stuff our selves so that nearly every man on the force was buying the stocks this company handled right up to the limit. When the bust came I had sunk every cent I had saved, about eight thousand dollars and in addition had lost my home. Now I'm back selling overalls, and feel like a whipped pup because I talked a lot of my friends into buying that stuff and I hate to look them in the face. I wish to God I'd never heard of that job."

But to get back to the gentleman that has just left my office. In the midst of his talk, he told me confidentially some of the people that he has succeeded in interesting in his proposition. Out of eleven names that he mentioned, three were physicians. The rest are assorted varieties—there's a dentist among them—but there isn't a single solitary individual whose name would carry any weight as a business man.

That isn't because business men are any brainier than professional men. To the contrary the average ought to be lower. But business men of any standing know more about the hazards that confront these devices that are

going to "revolutionize the industry," and they are exceedingly cold towards them. Furthermore the average shrewd business man will have nothing to do with any venture unless he has a finger in its direction. Then if he loses his investment, he has at least had the chance to make it go himself.

I have often noticed how frequently professional men, and particularly physicians, are pulled into ventures of this type. The woods are literally full of new companies to promote new ideas. It has been my privilege to view the remains of quite a number of these companies, and I think it is true that at least one physician had a stake in every one of them, and in some of them several of the medicos had sunk their dollars and their hopes.

I don't pretend to know why physicians are so susceptible to long shots, but the fact remains that they seem to be. If I were a physician, I believe I would feel that a special hoodoo hangs over the head of the medical profession, and such surplus money as I collected would be put away into mighty sound stuff. If I didn't know enough to select sound securities, I'd keep my money in the safest bank I knew of until I learned how to play safe.

A trip into the musty files of the patent office at Washington would be a wholesome lesson for everyone. Do you know that there are thousands upon thousands of perfectly practical inventions buried there that have never seen the market. There are other thousands upon thousands that were marketed unprofitably for a time and then went under. Yet thousands of these are articles that would fill a great need in our industrial or social life.

It is one thing to invent a thing—quite another to put it on the market. Distribution is the weakest and most costly link in the chain from the manufacturer to the consumer. Unless the selling plan is sound, no article will reach its market in sufficient volume to make it profitable, and its producers are bound to fail, no matter how well meaning and honest they may be.

Perhaps some of these salesmen are coming to you. They're not crooks, most of them. They're probably good decent fellows. But the fact that they tell you that they are putting their own money into the venture means nothing at all, at all, at all.

Oh yes, Henry Ford *did* make an awful cleaning up, didn't he? But consider those dusty tombs in the patent office—America's greatest grave yard.

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“LET GEORGE DO IT.”

Under this head we list each month definite offers of service available to our readers—the members of the State Medical Society of Wisconsin. Additions will be made from month to month but if you have a need not covered here your Secretary-Managing Editor will do his best to fill your needs. Address J. G. Crownhart, 558 Jefferson St., Milwaukee.

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6. LEGAL ADVICE upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

EDITORIALS

WE DO NOT CONCEDE

AN ESTEEMED contemporary state medical journal recently published an article in which the author declared in his opening statement, “It is generally conceded that the medical profession is losing its grip upon the public.”

As proof of his assertion the author pointed out a decline in the number of physicians in one county in his state. He further asserted that the people of California had rejected the medical practice act and that medical practice acts were faring ill generally at the hands of the courts and legislatures.

Solely in the spirit of constructive criticism we can not but give voice to our thought that this type of article is being vastly over done. We do not mean to say that quackery has not assumed a proportion that has alarmed many. But we are inclined to feel that it has long had this position. May it not be only that twentieth century methods of advertising have brought it to our attention more vividly at this time.

Granting that the problem of quackery exists, is it not a far reaching step to make the deduction that because this is true then it must follow that the medical profession has lost its esteem in the public eye? We have yet to see the figures that will support any such assertion. The author of the article in question declares that the irregular healers “would not exist if they did not fill a kind

of a need." We wonder what banker would say that the salesmen of blue sky stock would not exist "if they did not fill a kind of a need."

We have two objections to this type of article. In the first place the author assumes to speak for the medical profession but his assertions are supported by other assertions and not by carefully compiled statistics. In the second place this article in question, and some prior to it, received wide lay circulation by being reprinted in one of our large national weeklies. However well intentioned the authors may be, it is time we all realize that such articles outline no problem, solve no problem and, widely republished, contain the potentiality of raising more doubt in the public mind than we might dispell by the discovery of a specific for cancer. The medical profession has not lost its position won through long years of service to mankind. But if there is any one line of thought that will do more to undermine that public esteem, it is the publication of articles by our own members attempting to show that the profession has "lost its grip."

OUR REAL PROBLEMS

"The one great outstanding problem before the medical profession today," said Dr. Olin West, secretary of the American Medical Association, before our last meeting, "is that involved in the delivery of adequate scientific medical service to all the people, rich and poor, at a cost that can be reasonably met by them in their respective stations in life."

We are heartily in accord with that statement.

The Committee on Public Policy of this society has further declared that it can be considered no part of the responsibility and duty of the medical profession to see that adequate health measures are either enacted or enforced. It has declared that the sole duty of organized medicine is to place the facts before the public so that they can intelligently assume their own responsibilities in making a choice as between scientific medicine on the one hand and fraud and quackery on the other hand.

A great field of work is outlined in those two statements. Our efforts in striving towards the goals to which they point will be worthy in themselves. And such efforts will be worthy of the increased public esteem that will accrue.

The medical profession should not have a "grip" to lose. It has none. But it has won a public

esteem and all the quacks working in unison to advance their fraudulent claims by breaking down that esteem, will not accomplish one-half as much as a continuation of the publication in lay media of a few more articles that begin "It is generally conceded."

We trust that nobody will conclude from anything said in the foregoing that we do not believe in most searching self analysis and the correction of such personal and professional defects as are thus found. But this is quite a different thing from getting distorted images of ourselves and our relations to the public from absurdly distorted mirrors and spectacles, and going from these to absurdly unwarrantable conclusions.

MOVING FORWARD

SOME TIME ago Dr. W. F. Lorenz of Madison became the president of our State Board of Control. He became the first physician to hold such an office in Wisconsin.

In May the people of this state were informed that the medical staffs of their state penal and charitable institutions were attending a week's intensive course in medical instruction at the Wisconsin Psychiatric Institute. They were told that this school of instruction would be repeated at frequent intervals in the future.

Here is a progressive step looking towards the best possible care of Wisconsin's unfortunate citizens. The science of medicine progresses. The state has given notice that its scientific men in charge of public institutions will be provided with the opportunity to keep abreast with that progress.

DUST

THE PART which industry plays as a causative factor in tuberculosis is assuming more than an academic interest because of several workingman's compensation awards made in recent times by our Wisconsin Industrial Commission. That the number of claims will increase is quite probable and it may be well for us, therefore, to review the subject of the part which dust plays in etiology. This is particularly so inasmuch as our more recent studies in epidemiology tend to throw indirect means of disease transference into the background and first hand contact infections prominently to the fore. No longer does the

modern physician dwell upon the possibility of household infection as a likely etiological factor in tuberculosis or other infectious disease. Instead, he is devoting his attention to, and throwing safeguards around, the victims of disease and the potential hosts.

But that certain dusty trades—notably granite quarrying, tool grinding, etc., are accompanied by an excess of tuberculosis among the workingmen employed in them is unquestionable. We are not justified in reasoning from this point too far to word a logical conclusion, however, because there are some interesting anomalies presented in this general field. Bituminous coal mining presents such a one.

It would be quite reasonable to presume that these miners—who labor in a dusty atmosphere far away from God-given-sunlight and natural ventilation—should be particularly prone to tuberculosis. That carefully gathered statistics disclose such not to be the case is most interesting. Indeed, it has been found that often the disease is more prevalent among the families of these men than it is among the miners themselves. We are then confronted by the question if the coal dust may not exert a positively beneficial influence which offsets, in a large measure, the obviously baneful general hygienic circumstances.

Serious study has been given to the possibility of such dust as is inhaled in bituminous coal mining setting up a beneficent connective tissue wall or a reticulum such as William Snow Miller has disclosed and reported briefly upon in the last issue of this Journal.* We will not here presume to draw conclusions as to this; but we do wish, in closing, again to direct attention to the desirability of learned, scientific counsels being taken before too sweeping conclusions are drawn as to whether, in a given case, an industrial process is the cause of, or may be protection against tuberculosis.

H. E. D.

*P. 590, Vol. XXII, No. 12 (May, 1924).

A SPLENDID TRIBUTE

ON THE evening of May twenty-second the secretary of our State Society visited the La Crosse County Medical Society. Following a banquet at the sanatorium he was called upon to tell of the work and aims of the State Society.

It was an informal talk in which the fields of work were outlined, some accomplishments mentioned, and the present aims and future program were suggested.

At the conclusion of the discussion, the thirty-three members of the Society passed without a dissenting vote a memorial to the 1924 House of Delegates. It stated that the Society felt that the present dues should not be lowered and that should an increase be thought wise to further the present work of the Society, the members of the La Crosse County Society would be in favor of that increase.

That resolution was, first, a splendid tribute in itself to the spirit of the local society, and second, to those who have given so unsparingly of their time without compensation that the present work might be undertaken. It is just such spirit that has given Wisconsin the enviable position it has today. Its continuation will see the accomplishment of the present aims. Such willingness, co-operation and unity is the greatest asset of the State Medical Society of Wisconsin.

A CORRECTION

IN THIS column in our issue for May, 1924, we stated that a layman had in April, 1924, received a follow-up letter signed by Dr. F. C. Werner of Watertown who died in January, 1924. We find that this statement was in error in that it was Dr. F. C. Werner who signed the first letter received in December last. This first letter was written on stationery of the Cosmas Pharmacal Company, Inc., and in the upper left hand corner carried the printing "F. C. Werner, M.D., Consulting Physician."

The second letter received in April, to which we referred, was written upon the same letterhead including in the upper left hand corner the printing "F. C. Werner, M.D., Consulting Physician." The identity of the letterhead was noted but it was not noted that the second letter was signed by F. J. Werner.

The managing editor of this Journal regrets that this error occurred. The editorial policy of the Journal has always been one in which care has been exercised that no statements should appear that were not based upon exact facts. He takes this first opportunity to place this correction before the readers.

EXCELLENT APPOINTMENTS

AS THIS issue goes to press we are informed of the Governor's appointments to the State Board of Medical Examiners. No longer bound to make his appointments from a list submitted by the State Society he has reappointed Dr. Ripley of Kenosha. Dr. Ripley's faithful and long service is well recognized by our members.

He appointed Dr. R. E. Flynn of La Crosse who has long been a member of the Society and is a former president of his county medical society.

His third appointment he tendered to Dr. Rock Sleyster, president of our State Society. Dr. Sleyster's health did not permit him to accept a position of such responsibility at this time. It was, nevertheless, not only a recognition of the services of Dr. Sleyster but, as well, a pleasing recognition of the State Society.

We now learn that he has appointed Dr. J. Gurney Taylor of Milwaukee. Dr. Taylor's appointment will again receive the commendation of our members.

To the new members of the board the JOURNAL wishes to express the appreciation of all the members for the service they will render. It is not a service that can be compensated by the state but only by their own realization of work unselfishly undertaken and well accomplished. But it can also be rewarded in some measure by the support we physicians accord them as they seek to carry out the obligations of their office. We should and will always stand ready to accord that support.

AS OTHERS SEE US

WATCH WISCONSIN

The Wisconsin Medical Journal is to be congratulated upon the publication of its First Annual Lay Issue, which made its appearance in April. The number is a popular one written and illustrated for the general public.

Here is true enterprise in public health, and a venture that threatens the existence of the medical underworld.

The Lay Issue was published at the recommendation of the Legislative Committee of the State Society for the purpose of placing accurate information before the public. Five thousand copies were printed for general distribution, and these were sent to all members of the legislature, to all state officials and judges, to district at-

torneys and county clerks, and to three thousand "key people" whose names were supplied by members of the medical society and by the Wisconsin Anti-Tuberculosis Association.

Lay issues began with the London Lancet, but the Wisconsin Medical Journal is doing pioneer work in America and doing it well.—Colorado Medicine. June, 1924.

THE JOURNAL CLINIC

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SITUS INVERSUS VISCERUM WITH RE-
PORT OF A CASE

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H. H. HUBER, M.D.,

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Dextrocardia or dexiocardia is a term which is designated to apply to those cases in which it is found that the heart is displaced to the right side of the thoracic cavity. One must, however, consider all the conditions resulting in the above malposition.

These conditions fall into two groups: in one group, the heart is displaced to the right due to some acquired disease, as for instance, pleurisy with effusion, pericarditis, or mediastinal tumors, etc. In the other group, there is alteration of the position of the heart inasmuch as the apex points to the right. In the latter condition, as Osler remarks, one must of necessity distinguish two forms. One, in which the heart, in its embryonic development, simply rotates from left to right on its vertical axis in such a manner that the left side lies more anteriorly and the right still more posteriorly; in consequence, the actual apex is formed by the right chambers. In this condition, the great vessels usually come to lie in their normal position—although variations in arrangement may occur—as if the apex were pointing to the left. In the other, there is a complete mirror picture of the heart; that is to say, the apex points to the right and is formed by what normally would have been the left ventricle, and receives the oxygenated blood. The relation of

other chambers to each other remains the same.

What is the etiology of the above types of congenital dextrocardia? A review of cases of the first type, as Nagel remarks, with their complete clinical and necropsy reports shows other anatomical anomalies (septal defects, pulmonary stenosis, etc.), and thus convinces one that this type of congenital dextrocardia is due to embryonal arrest in development. Complete transposition of the heart, according to Maude Abbott, is due to abnormal habitus of the embryo within the chorion in reference to the umbilical vesicle, so that its right side instead of the left is closer to the blood supply. We must keep in mind that the embryonal cardiac tubes fuse into one about the end of the second week, and the latter assumes the future cardiac markings. The tube soon becomes bent and assumes the shape of the letter S. In complete transposition of the heart, due to abnormal habitus, the tube assumes the mirror picture of the letter S or S.



FIG. I

Simple rotation of the heart to the right may exist as a condition per se, but the review of the literature shows it to be an exceedingly rare condition. Complete transposition of the heart is usually associated with a complete (in a majority of cases) or partial transposition of abdominal organs.

Cases of dextrocardia have been known for

years. The information was usually obtained through necropsies or from anatomical or surgical laboratories. The last half a century brought a number of cases into the literature, but only a few of these have been discovered during life. With the advent of roentgenology and electrocardiography, as well as more complete routine physical examinations, more of these cases have been brought to light.

Up to the present day some odd four hundred cases have been reported, and the profession owes a great deal to Gruber, Nagel, Maude Abbott, and others who did the pioneer investigation.

REPORT OF A CASE

Master M. L., aged six, white, American, admitted to Mt. Sinai Hospital, through the Social Service Agency, for removal of tonsils and adenoids. Routine history obtained as follows:

Present complaint: Frequency of colds and sore throat.

Past history: Measles, scarlet fever, diphtheria, chicken pox, whooping cough, pneumonia. Normally delivered child—fifth in the family.

Parental history: Negative; no other abnormalities in the family.

Physical examination reveals a well-nourished male child.

Head. Eyes, no nystagmus, no diplopia; pupils equal,



FIG. II

respond to light and accommodation. Ears, neg. Nose, slight deviation of septum to the right. Mouth, pharynx hyperaemic; tonsils, hypertrophic and granular; teeth in good condition.

Neck. Neg.

Thorax. Symmetrical. Lungs, negative, except for presence of a few occasional mucous râles. Heart, base at the upper border of the third costal cartilage. Right border, 8.5 cm. to the right of mid-sternal line. Left border, 2.5 cm. to the left of mid-sternal line. Transverse diameter of the heart, 11 cm. Apex beat palpated and percussed in the upper border of the sixth intercostal space, 1.5 cm. to the right of mid-clavicular line. Beat of good quality, sharply localized, and regular. Heart sounds at apex correspond to those found normally in the mitral area. No murmurs, no extra beats. Heart sounds over lower mid-sternum correspond to those normally found in the tricuspid area. Heart sounds over the third right costal cartilage: second sound is sharp and snappy (corresponding to pulmonary second). Sounds over left third c.e. correspond to those of aortic area. No murmurs, no extra beats.

Abdomen. Left hypochondriac region—dull on percussion. Upper border of area of dullness is at the upper margin of the fifth rib in the mid-clavicular line; dullness extends to the costal margin. Traube's semi-



FIG. III

lunar space which is normally hyperresonant on account of the underlying stomach is dull, but a corresponding area can be found on the right side. Right hypochondriac region—on percussion tympanitic sounds usually found over the stomach area are detected. Kidneys—not palpable. Inguinal region—right inguinal ring is slightly dilated. Perineal region—left scrotum is longer than the right; partial descent of the right testicle. Neurological findings—no disturbance of special senses; all reflexes are normal; no abnormal reflexes are to be found.

Fluoroscopic examination.

Heart shadow shows in the right thorax. Right border contour corresponds to the normally found left border contour. Left border contour is similarly reversed. Apex beat is observed on the right side.

Descending aorta shows to the right of the sternum.

The retrocardiac space ordinarily utilized in an examination with the barium meal is best observed when the patient is in the right oblique position in reference to the tube rather than the left oblique position (which is the normally used).

Right diaphragm is lower than the left.

Barium test meal shows stomach outline on the right side of abdomen.

X-Ray findings.

Stomach, spleen, colon, caecum, sigmoid are reversed from their normal positions (Figs. 1 and 2).

Electrocardiographic findings.

Lead I shows a reversal of all curves. Leads II and III replace each other. Lead II, however, shows small excursions. These findings correspond with those previously observed by Neuhof and Lewis in cases of congenital dextrocardia. This supplies a diagnostic point between the transposed and the simply rotated dextrocardias (Fig. 3).

CONCLUSIONS

Undoubtedly, there are many more cases of situs inversus viscerum than the literature would indicate. The fact is, that these cases are discovered accidentally during routine examination.

Patients with situs inversus viscerum are normal individuals, and their organs functionate in the usual manner. But it is important to know of the malformation in case there should arise a condition of surgical pathology of thorax or, more frequently, of abdomen.

Complete and thorough physical examination is of paramount importance in each and every case.

Roentgenography and electrocardiography are of invaluable aid in diagnosis of cases of situs inversus viscerum.

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PREVENTIVE MEDICINE

Edited by

W. D. STOVALL, Chairman

Section on Preventive Medicine, State Medical Society of Wisconsin

This Section is open to all members of the State Medical Society and others who wish to discuss subjects pertaining to Public Health. Original articles, and criticisms of statements appearing in this section are earnestly solicited. Questions concerning public health procedure will be answered. Address communications to Dr. W. D. Stovall, State Laboratory of Hygiene, Madison, Wis.

COMMUNICABLE DISEASE CONTROL

BY G. W. HENIKA, M.D., STATE BOARD OF HEALTH
MADISON

We have reached a point in public health work where we know that public health is a purchasable commodity the same as flour or sugar. It takes, however, more than the few dollars of tax money expended by the average community to insure public health.

At the present time most communities are unwilling to spend sufficient funds to secure an efficient health organization. In order to succeed in their work any health organization must be equipped to put over a strong educational campaign on public health. Health is largely an individual attainment. Therefore, the ultimate results obtained in the community as a whole will depend largely upon the action of the individual.

The attainment of health is an individual re-

sponsibility and at the same time part and parcel of the social obligation. We owe it to the state and community to capitalize on the normal health endowment which is ours at birth, to cooperate to the fullest extent with the local authorities, and to help others to achieve full health citizenship.

No matter how much money is spent in a community to maintain an efficient department of health full returns will not be forthcoming until each person does his part in protecting both himself and those for whom he is responsible.

The type and quantity of public health educational work that has been previously done in a community will determine to a large degree the success or failure of controlling contagious disease in that community.

The well organized board of health properly financed and equipped with an efficient health officer, and an adequate staff of field nurses, will find their problem so far as the control of communicable disease is concerned to be largely one of preventing contacts.

VALUE AND LIMITATIONS OF ISOLATION

Chapin states that the results of isolation in the prevention of contagious diseases during the past thirty or forty years have been disappointing. He claims that there has been little, if any, change in the incidence of scarlet fever and diphtheria in the United States, though the mortality has been greatly reduced. No one claims that any demonstrable impression has been made on measles and whooping cough in our cities. Is it not a fact, however, that with our greatly increased means of communication communicable disease would have vastly increased, and that we really owe much to isolation in that the amount of these diseases has remained nearly stationary instead of overwhelming us? Efforts to control communicable disease should be concentrated where they will do the most good. Diligent search should be made for all contacts and associates, both within and without the family. Carriers, or otherwise infected contacts, must be sought for and disinfected or controlled.

The family of the sick one comprises only a small portion of the contacts and, if they only are isolated or quarantined, the result will be a failure, which statistics indicate too often is the case. Undoubtedly, they are correct who claim that the failure to control contagious disease is due chiefly

to the fact that so many contacts are not found and not controlled.

Many epidemics of scarlet fever, measles and diphtheria of a mild type have occurred during the past few years from inability of the local health authorities to determine and isolate the contacts infected from mild and unrecognized cases.

From the standpoint of control the non-immune contacts are the important ones. These must be controlled and kept under observation a sufficient length of time, dating from the last exposure, to cover the maximum period of incubation plus the prodromal period. The ideal way is for each non-immune contact to be seen each morning, or at least once each day. Sometimes inspection twice a day is desirable. Hospitalization is considered the most effective form of isolation, but the hospitalization of one patient for a month costs as much as the services of a visiting nurse for the same period and a nurse could closely supervise a dozen or more families at home. In rural communities isolation in the home must be depended upon as hospitalization of all cases is out of the question.

In striving for communicable disease control the public health official should encourage physicians to make use of every known scientific laboratory test that will aid in establishing a diagnosis. Laboratory tests must also be resorted to in obtaining release cultures in certain diseases, and in checking up on the carrier problem. Physicians and public health workers should also make use of every accepted method of rendering susceptible individuals immune against disease. This will involve the use of the various vaccines, antitoxins, serums and toxin antitoxin. Rigid cleanliness of the patient and attendants, concurrent disinfection of infected discharges from the patient and all bedding and other articles coming from the sick room are highly essential in preventing the spread of disease. Terminal disinfection of the patient and home following the disease has replaced fumigation in Wisconsin.

CARRIERS

In overlooked mild cases of disease and in carriers we find usually the explanation of outbreaks of epidemic disease. We know beyond question that typhoid fever, diphtheria, malaria, Asiatic Cholera, and other diseases whose exciting cause

is capable of demonstration are carried about by recovered cases and people who are not known ever to have had the disease. Public health officials who have had experience in fighting scarlet fever, measles, and smallpox know that their hardest problem is to search out and isolate the mild, scarcely recognizable cases. Until we have evidence to the contrary we should assume that these diseases of unknown etiology may have been carried in good health as do the diseases whose etiology is known.

No successful anti-epidemic work can be done that fails to take into account the part played in spreading disease by these carriers and mild cases. It must not be forgotten that carriers may give off the germs intermittently, as is surely the case in typhoid fever. This feature also puts limits to the value of isolation, and makes strict isolation early in an epidemic much more valuable than later.

MILK

Diphtheria, scarlet fever, typhoid fever, septic sore throat and possibly other infections are occasionally transmitted in milk. The infection of milk, however, is almost always secondary, occurring after it has been drawn from the cow. Gardner and Simonds state that diphtheria of the cow's udder has been definitely proved in two instances to have caused epidemics.

Bovine tuberculosis is also transmitted to man through the medium of milk. Diarrheal diseases, though of more or less uncertain bacteriology, are often communicated through the milk supply, the infection occurring after the milk is drawn.

WATER

Water is a very common medium for the transmission of typhoid, cholera, and dysentery of both types. It may be infected at the source or at any other place where it is handled or stored before it reaches the consumer. Improvement in the purity of a water supply is always accompanied by improvement in the public health. Wherever the public health official finds that a community cannot secure a water supply free from contamination, it becomes his paramount duty to educate the people to boil, chlorinate, adequately filter or otherwise sterilize the water they use for drinking purposes.

Individuals traveling in foreign countries or spending their vacations in localities where they

are not certain of securing a pure water supply should protect themselves by the use of anti-typhoid vaccine before leaving home.

In those communities where the character of the water supply is questionable, vaccination against typhoid will insure protection until the water supply can be rendered safe. Statistics from our army during 1917 established this fact conclusively. During 1917 and 1918 there were four million men in the army. These men were all supposed to have been vaccinated against typhoid fever. There was one case to every 3,756 men as compared with one case to every seven men in the Spanish-American War. A comparison between the army and the civilian rate among the population 20 to 29 years of age shows that in 1917 a rate per 1,000 of 0.03 in the army and 0.11 among civilians. This is the first time a large American army in the field has ever had a typhoid rate lower than that of the civilian population. An investigation of the cases of typhoid showed that some of the men had not been vaccinated, some developed the disease soon after entering camp and others had the disease in spite of vaccination.

Typhoid is rapidly coming under control in this state. In 1920 Wisconsin had the lowest death rate for typhoid fever of any state. In 1921 Wisconsin was second to Rhode Island. In 1923 with only 55 deaths from typhoid the rate was 2.02 per thousand population, the lowest in our history.

Deaths from typhoid have been reduced from 558 in 1910 to 53 in 1923. This remarkable decrease is due largely to rendering safe many of the polluted water supplies of the state, to the closer supervision of carriers and the more universal use of typhoid vaccine on contacts and as a protective measure.

THE NURSE

The county nurse, the city school nurse, the public health nurse, all are important factors in the control of communicable disease. They render valuable service in locating contacts and carriers, in discovering mild cases, and in making home calls upon children absent from school. Wherever such nurses are employed the incidence of contagious diseases is always less and the schools are protected more often from epidemics of disease. The educational work done by the

efficient nurse in the school and in the home insures better cooperation upon the part of the public with the local health officials.

PNEUMONIA

The importance of pneumonia as a public health problem is increasing annually. In some localities it outranks even tuberculosis as a cause of death.

Sufficient educational work has not been done by public health officials to convince the public of the dangers and communicable nature of this disease. The public have been permitted to form the opinion that the germs causing pneumonia are normally present on the mucous membranes of most individuals during health, and it was generally following influences depressing to the human body, such as extreme fatigue, sudden chilling of the body, etc., that these organisms develop pathogenic properties and produce the condition recognized as pneumonia. As a result of this attitude little progress has been made in the control of this disease. The required precautions have not been taken to prevent susceptible persons coming in contact with those afflicted with the disease.

We should give more consideration to prompt reporting of all cases and immediate isolation or quarantine of every suspicious or established case. All contacts should be followed up and foci of the disease located if possible. Bacteriologic determination of the type of pneumococcus present is also important.

Mortality records are an important index of the control of communicable disease. Any condition which constitutes a serious menace to health is soon revealed in the mortality records. Many authorities declare that infant mortality is, perhaps, the most valuable index of the healthfulness of a state or community. In Wisconsin the infant mortality for 1921 was 72 per thousand births, and the state ranked ninth from the lowest of registration in this respect. There were 1657 fewer deaths of babies under one year of age in Wisconsin in 1922 than there were in 1910. This is a wonderful record when you consider that 6374 more births occurred in 1922 than occurred in 1910.

TUBERCULOSIS

While the progress that is being made in Wisconsin in controlling the spread of tuberculosis

compares favorably with results that have been obtained in other states, we are still suffering an annual loss of approximately 1700 lives.

Whether our greatest hope lies in more and larger sanatoria where these unfortunates can be confined and educated to care for themselves in such a manner as not to spread their disease, or whether we should have a tuberculosis ward in every hospital is a disputed question. Certainly our progress will be slow until we find some means of educating the 5000 or more active cases that are now at large in our state, and stop them from spreading their infection.

The following table shows tuberculosis deaths in Wisconsin for the past sixteen years, with the death rate each year per 100,000 people:

Year	T. B. Deaths	100,000 Rate
1908	2505	109.3
1909	2546	109.9
1910	2404	103.
1911	2405	102.
1912	2362	99.
1913	2328	97.
1914	2435	100.
1915	2310	94.
1916	2302	93.
1917	2460	98.
1918	2413	95.
1919	2191	86.
1920	2243	85.6
1921	2017	76.
1922	1809	67.1
1923	1713	63.

Compared to the United States as a whole Wisconsin ranks well toward the top. The death rate for the entire registration area for tuberculosis for 1910 was 160 deaths for every 100,000 people. Wisconsin's rate the same year was 103.

By 1920 the tuberculosis death rate in the entire registration area was 114, and Wisconsin's was 85.6. The 1921 national rate was 99. and Wisconsin's 76.

In 1922 the national rate was 97. and Wisconsin's 67.1 per 100,000 population. In 1923 it was still lower—63. per 100,000 population.

TABLE SHOWING CONTROL OF PREVENTABLE DISEASE IN WISCONSIN OVER A TWELVE-YEAR PERIOD 1910 TO 1922 INCLUSIVE

Population 1910	Population 1922
2,333,815	2,723,983

Deaths 1910	Deaths 1922	Lives Saved
431	Diphtheria 238	193
304	Scarlet Fever. 157	147
158	Measles 40	118
208	Whooping Cough. 109	99
558	Typhoid Fever. 81	477
2,404	Tuberculosis 1,809	595
41	Infantile Paralysis 22	19
478	Meningitis 217	261
5,775	Infant Mortality, 4,118	1,657

Total lives saved. 3,566

In conclusion it would appear that in the light of our present knowledge our greatest progress in communicable disease control in the future will be along the following lines:

1st. Better organized and better financed local boards of health, and a larger number of full-time health officers.

2nd. A more vigorous search for contacts and foci of infection.

3rd. Better supervision of cases and contacts.

4th. Securing of better cooperation by educating the public to the possibilities of preventive medicine and by making restrictive measures as lenient and as effective as possible.

PUBLIC HEALTH NOTES

Where a person falls sick with a dangerous communicable disease in a hotel, the health officer is authorized to remove the patient to some suitable place if assured it can be done without endangering life. Where it is not safe to remove such patient, he must be isolated in the hotel and the hotelkeeper is entitled to compensation for his care. If the patient is indigent, the local government must pay. The owner is not entitled to any "damages" against the town as a result of losses to the business arising from such circumstances.

Mrs. Gertrude S. Hasbrouck, child welfare specialist, formerly with the United States department of agriculture and the Rhode Island State college, and other agencies, and former field secretary of the National Child Welfare association, joined the staff of the Wisconsin bureau of child welfare. She will undertake to promote study of infant care more extensively among girls in schools, particularly vocational schools employing home economics teachers.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

Officers 1924

ROCK SLEYSER, Wauwatosa, President
M. R. WILKINSON, Oconomowoc, 1st Vice President
JOHN MINAHAN, Green Bay, 2nd Vice President

C. D. BEEBE, Sparta
3rd Vice President

S. S. HALL, Ripon, Treasurer
Mr. J. G. CROWNHART, Executive Secretary
558 Jefferson St., Milwaukee

Councilors

TERM EXPIRES 1929

1st Dist., A. W. Rogers - Oconomowoc
2nd Dist., G. Windesheim - Kenosha

TERM EXPIRES 1925

O. B. Bock - Sheboygan
F. G. Connell - Oshkosh

TERM EXPIRES 1927

9th Dist., Joseph Smith - Wausau
10th Dist., R. E. Mitchell - Eau Claire

TERM EXPIRES 1924

3rd Dist., C. A. Harper - Madison
4th Dist., W. Cunningham - Platteville

TERM EXPIRES 1926

Edward Evans - LaCrosse
T. J. Redelings - Marinette

TERM EXPIRES 1928

11th Dist., J. M. Dodd - Ashland
12th Dist., Hoyt E. Dearholt - Milwaukee

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H. M. BROWN, Milwaukee

ROCK SLEYSER, Wauwatosa

JOSEPH F. SMITH, Wausau

Alternates

W. E. BANNEN, La Crosse

F. G. CONNELL, Oshkosh

R. E. MITCHELL, Eau Claire

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LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES.

Table with 3 columns: County, President, Secretary. Lists medical society officers for all Wisconsin counties including Ashland, Barron, Brown, Calumet, Chippewa, Clark, Columbia, Crawford, Dane, Dodge, Door, Douglas, Dunn-Pepin, Eau Claire, Fond du Lac, Grant, Green, Green Lake-Waushara-Adams, Iowa, Jefferson, Juneau, Kenosha, La Crosse, La Fayette, Langlade, Lincoln, Manitowoc, Marathon, Marinette-Florence, Milwaukee, Monroe, Oconto, Oneida-Forest-Vilas, Outagamie, Pierce, Portage, Price-Taylor, Racine, Richland, Rock, Rusk, Sauk, Shawano, Sheboygan, St. Croix, Trempealeau-Jackson-Buffalo, Vernon, Walworth, Washington-Ozaukee, Waukesha, Waupaca, Wood, Winnebago.

SOCIETY PROCEEDINGS

B-P-W-S-B SOCIETY

Members of the Barron-Polk-Washburn-Sawyer-Burnett County Medical Society have arranged a course of six lectures during the spring and summer months. The lecturers have been secured through the University Extension Division. The following is the program arranged:

May 9, Dr. H. P. Greeley—Use and abuse of drugs in heart and kidney diseases.

June 6, Dr. O. H. Foerster—Some of the more common diseases of the skin.

July 11, Dr. W. J. Bleckwenn—Syphilis of central nervous system, diagnosis and treatment.

August 8, Dr. F. J. Gaenslen—Tuberculosis of bones and joints.

September 5, Dr. Albert G. Jenner—Pyelitis, Nephritis, Pyelonephritis, and Nephrosis symptoms, differential diagnosis and treatment.

September 26, Dr. Carl H. Davis—Plastic surgery of the female pelvis.

On June 3rd the members attended a meeting at Frederic and were guests of the Frederic members for a dinner and social hour following the program. The program presented follows:

"The Significance of Pain," by Dr. J. A. Diamond, Frederic, Wis.

"Judgment in Abdominal Surgery," by Dr. R. G. Arveson, Frederic, Wis.

"Fractures, Ills.," by Dr. L. E. Daugherty, of St. Paul, Minn. Illustrated by lantern slides.

"Some Common Diseases of the Skin and Their Treatment," Dr. C. D. Freeman, St. Paul, Minn.

"Iodine in the Prevention and Treatment of Goiter," Dr. Nels Warner, Eau Claire, Wis.

BROWN-KEWAUNEE COUNTY

Members of the Brown-Keweenaw County Medical Society were entertained at Hickory Grove Sanatorium on May 15th. Following a banquet the members were addressed by J. G. Crownhart, Secretary of the State Society and by Dr. A. A. Pleyte of the Wisconsin Anti-Tuberculosis Association.

CHIPPEWA COUNTY

Eighteen members of the Chippewa County Medical Society met at Chippewa Falls on the evening of May 23rd. Dr. J. A. E. Eyster of the University of Wisconsin, spoke on "The More Common Types of Heart Disease."

COLUMBIA COUNTY

The Columbia County Medical Society met May 28th. Dr. I. U. Sears of the State Department of Health spoke on the control of venereal disease. The next meeting of the Society will be held at the Portage Hospital the evening of July second. Dr. L. F. Jermain, Milwaukee, will conduct a clinical meeting.

DANE COUNTY

A dinner meeting of the Dane County Society was held at the University Y. M. C. A. on Tuesday, May 13th.

Prof. D. W. Mead of the University presented a paper on "Professional Ethics" and Dr. Otto H. Foerster, Milwaukee, gave a paper on "Practical Points in the Treatment of Certain Skin Diseases."

FOND DU LAC COUNTY

Close to fifty members attended the meeting of the Fond du Lac County Medical Society held at Hotel Retlaw, Fond du Lac, on May 16th. Dr. L. F. Jermain, Dean of Marquette University School of Medicine, presented a demonstration on medical cases.

FOX RIVER VALLEY SOCIETY

The Fox River Valley Medical Society met at Oshkosh on Friday, May 23rd. Following the program the following officers were elected for the ensuing year: Dr. Robert L. Cowles, Green Bay, president; Dr. J. J. Rehorst, Fond du Lac, vice-president; Dr. R. M. Carter, Green Bay, secretary-treasurer; and Dr. Edward Sawbridge, Stephenson, Mich., censor.

GRANT-IOWA-LAFAYETTE-CRAWFORD COUNTY

A joint meeting of the Grant, Iowa, LaFayette, Crawford and Dubuque County (Iowa) medical societies was held at Lancaster on Thursday evening, May eighth. Close to fifty members were guests of the Grant County Society at the banquet at the Grantland Club Rooms.

Following the banquet Dr. Henry J. Schmitz, Chicago, gave an extended talk on "Carcinoma of the Uterus" with illustrations. Dr. Thomas A. Carter, Chicago, read a paper on "Surgery of the Thyroid." Mr. J. G. Crownhart, Secretary of the State Society, told of the work and present aims of the Society. Dr. J. C. Doolittle, president of the Grant County society, presided at the joint meeting. Following the program a general discussion and talk-around concluded the most enjoyable evening.

GREEN BAY ACADEMY

The Green Bay Academy of Medicine was organized on May 18th with an initial membership of twenty-four. The purpose of the new society is "to foster study and intellectual advancement among the members and to encourage progress in the science of medicine and surgery in every way possible and for no other purpose."

The following officers were elected: Dr. A. J. McCarey, president; Dr. R. M. Carter, vice-president; Dr. I. E. Levitas, secretary-treasurer; and Drs. E. G. Nadeau and G. F. Goggins, executive committee.

JEFFERSON COUNTY

Members of the Jefferson County Medical Society held a dinner meeting at Watertown on May seventh. Following the business meeting, Dr. Arnold Jackson, Madison, read a paper on "Goiter."

LA CROSSE COUNTY

Thirty-three members of the La Cross County Medical Society were entertained at the Sanatorium for a dinner meeting on May 22nd. Following the dinner Mr. J. G. Crownhart, Secretary of the State Society, gave an extended talk on the fields of work and told of the present aims of the Society.

Upon motion of President Henke the Society unani-

mously adopted a resolution memorializing the 1924 House of Delegates to maintain the present dues to the State Society; and further, informing the House that should an increase seem necessary to further the present work of the Society, that the members of the La Crosse County Society favored such a step.

MILWAUKEE COUNTY

Members of the Milwaukee County Medical Society held a dinner meeting at Hotel Pfister on May eight at which Mr. Harry E. Kelly, Attorney at Law, Chicago, was a guest of the Society. Following the dinner Mr. Kelly gave a most interesting talk on the subject of "Pursuing the Quack."

MILWAUKEE NEURO-PSYCHIATRIC

A joint meeting of the Milwaukee Neuro-Psychiatric Society and the Milwaukee Academy of Medicine was held at the Health Service Building on May 27th. Dr. A. W. Adson, Rochester, Minnesota, was essayists of the evening, presenting a paper on "The Diagnosis and Treatment of Brain Tumors."

MILWAUKEE OTO-OPHTHALMIC

A joint meeting of the Milwaukee Oto-Ophthalmic Society and the Milwaukee Academy of Medicine was held on April 22nd. Dr. J. R. Pennington, University of Illinois, read a paper on "Simplified Methods for the Treatment of Rectal and Anal Diseases," and Dr. W. I. Lille, Rochester, Minnesota, presented a paper on "Frequency of Ocular Phenomena in Acromegaly."

MILWAUKEE RADIOLOGICAL

A joint meeting of the Milwaukee County Radiological Society and the Milwaukee Academy of Medicine was held on May 13th. Dr. J. T. Case, Battle Creek, Mich., presented a paper on the "Travelogue of the Barium Meal through the Intestinal Tract, and Pathology Determined by the Same."

A dinner was given Dr. Case by the Radiological Society preceding the evening's program.

NINTH COUNCILOR DISTRICT

The regular quarterly meeting of the Ninth Councilor District Medical Society was held at Stevens Point on the afternoon of May 16th. Dr. Joseph Evans, Professor of Clinical Medicine at the University of Wisconsin, held a medical clinic at the Public Library during the afternoon.

Following the banquet at Hotel Whiting, Dr. V. E. Eastman, Wausau, presented a paper on "Some Types of Kidney Lesions with Specimens." Dr. W. G. Sexton, Marshfield, read a paper on "Pregnancy Complicated by Papilloma of the Bladder" and Dr. Evans presented a paper on "Anemia."

Dr. J. W. Coon, Stevens Point, was elected president of the Society to succeed Dr. Charles C. Walsh of Merrill. Dr. Joseph Smith, Wausau, was re-elected Secretary for the coming year.

RACINE COUNTY

The regular meeting of the Racine County Medical Society was held Thursday afternoon, May 22, at Sunny

Rest Sanatorium. Members of the Racine and Kenosha county societies were present.

Dr. A. A. Pleyte, Milwaukee, gave a very able and instructive address on the subject of "Diagnosis and Prognosis of Tuberculosis."

A splendid discussion was led by Dr. L. L. Allen of Muirdale Sanatorium, Wauwatosa. Dr. H. E. Dearholt, secretary of the Wisconsin State Anti-Tuberculosis Association, and N. O. Hopkins, financial secretary of the National Anti-Tuberculosis Association, were present and gave valuable information in regard to the work.

At the close of the meeting the members were invited to inspect the sanatorium and nurses' home, after which the guests were served a sumptuous banquet in the main dining room, where covers were laid for 47.

A spirit of good fellowship was evident.

SAUK COUNTY

Eighteen members of the Sauk County Medical Society met at Baraboo, May 21, for a dinner meeting. Dr. W. F. Nuzum was called upon to tell of some aspects of technique in obstetrics observed during his recent visit in Chicago. Mr. J. G. Crownhart spoke on "Experiences with Quackery."

Election of officers resulted in the re-election of Dr. H. J. Irwin, president; Dr. George D. Beach, vice-president; Dr. Roger Cahoon, secretary-treasurer; Dr. L. W. Sayles, delegate and Dr. Edward McGrath, alternate.

SHAWANO COUNTY

Members of the Shawano County Medical Society met at Shawano on May 14th. Dr. E. L. Schroeder presented a most interesting paper on "Causes of Sudden Death." Mr. J. G. Crownhart, Secretary of the State Society, told of the work of the State Society. It was voted to hold a summer meeting at the Lake.

VERNON COUNTY

Members of the Vernon County Medical Society met May 28th for the annual election of officers. All officers were re-elected for the ensuing year.

WASHINGTON-OZAUKEE COUNTY

Fifteen members of the Washington-Ozaukee County Medical Society met at Masonic Hall, West Bend, Saturday afternoon, May 31st. Three members of the Society recently returned from attending postgraduate courses abroad gave most interesting talks on their observations.

Dr. A. J. Schloemer, Jackson, presented new material in Pediatrics, Dr. Henry A. Pfeifer on Surgery and Gynecology, and Dr. K. T. Bauer on Eye, Ear, Nose and Throat.

Following the scientific program, Mr. J. G. Crownhart, Secretary of the State Society, told of the fields of work of the Society and its aims. It was voted to hold the next meeting in July.

WAUKESHA COUNTY

The Waukesha County Medical Society met at Delafield on May 7th where the members were the guests of

Dr. Barnes. Dr. Frank McMahon, Milwaukee, presented an extensive paper on Cancer. The paper was illustrated with lantern slides. Mr. J. G. Crownhart told of the work and aims of the State Society.

Following the program the members of the Society were the guests of Dr. Barnes for dinner.

WINNEBAGO COUNTY

A Symposium on Digitalis constituted the program for the April meeting of the Winnebago County Medical Society. A paper on "The Era of Standardization in Digitalis Medication" was presented by Dr. Bickel. Drs. Lockhart and Schneider presented a joint paper on "Digitalis in Pneumonia." Dr. Andrews read a paper on "Digitalis and Cardiographic Readings" and Dr. Williamson of Neenah spoke on the "Use of Digitalis in Various Heart Lesions."

NEWS ITEMS AND PERSONALS

Dr. D. S. Runnels, Appleton, was elected president of the Homeopathic Medical Society of Wisconsin at a meeting in Oshkosh, May 13. Others elected to office are: Dr. I. E. Ozanne, Neenah, vice-president; Dr. M. M. Hopkins, Oconto, secretary; Dr. F. E. Brown, Milwaukee, treasurer; Dr. H. E. Johnson, Oshkosh, necrologist; Drs. E. T. Ridgway, Elkhorn, and G. H. Ripley, Kenosha, legislative committee; Drs. G. R. Reay, La Crosse, Edith Bartlett, Janesville, and J. T. Ozanne, Oshkosh, censors; Dr. F. E. Brown, delegate and Dr. G. R. Reay, alternate, to the American Institute of Homeopathy. The next meeting of the Wisconsin Association will be in Milwaukee.

Dr. E. F. Bickel was elected president of the joint staff of Mercy and St. Mary's hospitals, Oshkosh, at the annual staff meeting in April. Dr. H. E. Johnson was named vice-president, and Dr. R. H. Bitter, secretary.

Dr. William H. McQuire, Janesville, has been appointed official assistant to Dr. W. H. Palmer, district surgeon for the Chicago and Northwestern railroad. The appointment came as an appreciation of services rendered in assisting Dr. Palmer in his examinations for the past nine years.

Dr. F. C. Studley, Milwaukee, is confined to his home by illness.

Dr. J. H. Sure, Milwaukee, has been made defendant in two damage suits filed in circuit court in that city as the result of the death of a child born to Mrs. Mary Ginsberg, Milwaukee. The plaintiffs, Mr. and Mrs. Morris Ginsberg, allege that Dr. Sure failed to be on time at the precise moment when Mrs. Ginsberg gave birth to the child. The couple asks \$17,000 damages for the death of the infant and the alleged subsequent ill-health of Mrs. Ginsberg.

Dr. E. R. Downing, University of Chicago professor, addressed the Physicians and Surgeons club of Beloit at its regular meeting May 13.

Ten senior students of Marquette University school of medicine have been received into the Circle, honorary society of the medical school. They are:

Albert Brussock, John P. Fetherston, Charles W. Harper, Clarence F. McDonald, Frank T. O'Connell and Sylvester S. Zintek, Milwaukee; Joshua H. Armstrong, New Richmond, Wis.; Joseph A. Looze, Casco, Wis.; Joseph A. Sanford, Stephenson, Mich., and Millard Tufts, Sturgeon Bay, Wis.

Dr. Harry G. Oakland and family, Milwaukee, have returned from a six weeks' tour through California.

Dr. and Mrs. Claude S. Beebe, Milwaukee, have returned from a motor trip to Ashville, N. C.

Dr. Hoyt E. Dearholt, Milwaukee, executive secretary of the Wisconsin Anti-Tuberculosis Association, was elected vice-president of the National Tuberculosis Association and its annual convention in Atlanta this month. Both Dr. Dearholt and Will Ross, seal sale manager of the Wisconsin Association were speakers at the convention. Dr. Gustav Windesheim, Kenosha, was re-elected a director of the national association.

Miss Laura Faville, Lake Mills, has been selected as state dietitian for institutions under the state board of control. An appointment was made under a plan adopted by the board for closer supervision of food supplies for inmates of the state institutions.

Dr. Nordahl O. Gunderson, formerly of Stoughton, has been re-appointed health officer of Rockford, Ill. This is his second year of service in that capacity.

Dr. Hans H. Reese, Chicago, has been appointed senior physician of the Wisconsin State psychiatric institute. Dr. Reese is declared to be a German authority on social diseases. He was formerly professor in the Universities of Kile and Hamburg.

Medical staffs of the state penal and charitable institutions under the state board of control were given an intensive course of instructions during the week of May 19 to 24 at the state psychiatric institute. Special instruction was given to the physicians in lines of their work and peculiar to the institution with which they are connected. The teaching staff included:

Dr. W. F. Lorenz, chairman of the board of control; Dr. T. H. Bast, state university; Dr. W. J. Meek, physiology, Dr. A. S. Loevenhart, pharmacology, Dr. W. S. Middleton, clinical medicine, Dr. J. S. Evans, clinical medicine, Dr. J. A. E. Eyster, physiology, Dr. E. L. Sevringhaus, physiological chemistry, all of the state university; Dr. W. D. Stovall, director state laboratory of hygiene; Dr. Paul Hodges, Pekin Union Medical college; Dr. F. V. Sander, state psychiatric institute; Dr. M. K. Green, superintendent, state hospital, Madison; Dr. B. L. Kenney, chief of staff, state psychiatric institute.

Miss N. Elizabeth Casey, Ripon, has been engaged as superintendent of Burlington's new Memorial hospital and Mrs. Irene McCormick will fill the position of matron. Both women have already assumed their duties as the building is practically ready for occupancy. Miss Casey was for many years superintendent of the nurses' training school at Trinity hospital, Milwaukee.

Full compensation was awarded on Friday by the state industrial commission to an employe for the loss of

vision, in face of a recovery received by the workman in a malpractice action against the attending physician.

The commission declared that the compensation act specifies what damages shall be in a malpractice act, but that it does not provide that the amount recovered in such a suit shall be deducted from the amount recovered under the compensation act. The workman therefore was given the full amount of compensation. This is said to be the first ruling of this kind by the industrial commission.

Dr. Roy A. Barlow, formerly associate in the section of otolaryngology of the Mayo Clinic, Rochester, has joined the staff of the Jackson Clinic in Madison. He will specialize in the practice of surgery of the ear, nose and throat and special head surgery.

Dr. Damon A. Brown, instructor in clinic medicine at the University of Wisconsin, has become associated with the Jackson Clinic, Madison, in the practice of medicine and urological diagnosis. For five years he was with the Collins Clinic in Peoria, Ill.

Dr. and Mrs. Emil Tompaeh, Racine, were tendered a "surprise party" in honor of their 25th wedding anniversary recently. The festivities took place in Milwaukee.

Dr. C. W. Voorus was elected health officer of Beaver Dam at a recent organization meeting of the Board of Health of that city.

Dr. Thad W. Ashley, Kenosha, has opened an eye, ear, nose and throat hospital on Chicago street. Dr. Ashley will be assisted in his work by Miss Clara Huxley, who was for several years in charge of the operating room of the Kenosha hospital and was more recently connected with the Kenosha clinic.

Dr. Louis Jermain, dean of the Marquette University medical school, and Dr. Lorenzo Boorse, professor of pediatrics, who have this year completed 30 years as members of the school faculty, were honored by senior class students recently, and were presented silver loving cups.

Dr. Carl Andrew, Platteville, has secured space on the second floor of the Bayley block in that city and will convert the rooms into hospital quarters. This will give Platteville three such institutions.

The Methodist Hospital association, Richland Center, has had plans drawn up for the construction of a hospital, the first in Richland county. Dr. N. S. Davis, Chicago, an expert on hospital buildings, has been in conference with the church people and approves the plans.

Dr. C. D. Fenelon, who has been ill in an Ashland hospital for several weeks, has returned to Phillips, much improved.

Dr. W. F. Lorenz, Madison, will head a special committee appointed by Director Hines of the Veterans Bureau to look into hospitalization facilities for war veterans in Wisconsin and neighboring states. Dr. Lorenz believes the survey will be one of the first really constructive steps taken by the Veterans' Bureau toward

the solution of the problems of ex-service men in Wisconsin and other states.

Dr. S. D. Greenwood, Neenah, has been re-elected chief of the physicians' staff of the Theda Clark hospital. Dr. I. E. Ozanne was re-elected secretary.

Drs. S. E. Gavin, F. M. McGauley, J. J. Rehorst, and A. C. Dana, Fond du Lac physicians, have opened a new clinic on the seventh floor of the new Commercial National Bank building. The clinic equipment is in every respect up-to-date. All four physicians have been practicing in Fond du Lac for some years.

Dr. Lewis Cohen, Milwaukee, was sentenced to 14 years in the state penitentiary at Waupun following conviction of being accessory before the fact to the holdup of an optometrist shop in that city April 26, 1924. Dr. Cohen has also a federal sentence hanging over him as the result of alleged mail robberies.

SOCIETY RECORDS

NEW MEMBERS

Wagner, Paul, 1614 Center St., Milwaukee.
Schubert, F. J., 539 Mitchell St., Milwaukee.
Rybak, F. S., 539 Mitchell St., Milwaukee.
Aston, E. G., Milwaukee County Hospital, Wauwatosa.
Beadles, C. H., Beloit.

CHANGES IN ADDRESS

Schmidt, H. G., North Milwaukee—511 Wisconsin Theatre Bldg., Milwaukee.
Sisk, Ira R., Jackson Clinic, Madison—616 First Central Bldg., Madison.
Corr, J. T., 133 W. Blvd., Racine—610 Main St., Racine.
Callan, P. L., 391 Lincoln Ave., Milwaukee—1004 Kinnickinnie Ave., Milwaukee.
Soles, F. A., Speneer—307 Baker Bldg., Walla Walla, Washington.
Murphy, F. D., 305 Palace Bldg., Milwaukee—510 Wisconsin Theatre Bldg., Milwaukee.
King, Jos. M., Milwaukee County Hospital, Wauwatosa—510 Wisconsin Theatre Bldg., Milwaukee.
Strauss, F., 142 Wells St., Wauwatosa—Sta. E. R. 6, Box 35A, Milwaukee.

MARRIAGES

Dr. Norval Haddow, Chippewa Falls, to Miss Louise Helen Miller, Minneapolis, at Chippewa Falls on April 16th.

DEATHS

Dr. C. C. Gratiot, Shullsberg, died at his home on May 20th. Dr. Gratiot was known as the Dean of the surgeons of Southwestern Wisconsin. He was born at Utica, N. Y., Dec. 25, 1847.

Dr. Gratiot's preliminary education was well founded and being at all times a student of good literature and the questions of the time, his general knowledge was both thorough and wide. He held many positions in civic, educational and professional life and always creditably. He was a member of the M. E. Church, the LaFayette County Medical Society, the State Medical Society of Wisconsin, and the American Medical Asso-

ciation. But we always suspected that his membership in the G. A. R. was his favorite affiliation.

He practiced medicine since his graduation from Jefferson Medical College in 1880 and he never found weather, road nor any other obstacle sufficiently unpleasant to deter him from driving anywhere at any time if there was the slightest possibility of his being able to get to his patient. Thus we younger Country Doctors feel we have lost a leader in our ranks when this Dean of us all passed from our immediate circle. We will ever admire Dr. Gratiot for the Thoroughbred that he was. P. W. L.

Dr. Joseph Tkadlec, Cazenovia, died at his home in May. Dr. Tkadlec was a member of the Sauk County Medical Society, the State Medical Society and the American Medical Association.

Dr. Thomas A. Berwick, Princeton, died at Saukville on May 5th. Dr. Berwick had been ill for several weeks.

Dr. John H. Alexander, Belmont, died at his home on April 16th. Dr. Alexander had practiced at Belmont for 18 years. He was a member of the Masonic order.

Dr. John Emmett Walsh, Highland, died on May 27th of cerebral hemorrhage. Dr. Walsh formerly practiced at Peshtigo. He was a graduate of P. and S. of Chicago.

Dr. Carl von Neupert, Sr., died at St. Michael's Hospital at Stevens Point. Doctor von Neupert had been in poor health since early spring.

Doctor von Neupert was born in Bavaria eighty-three years ago where he completed his medical education. He practiced medicine in his native land until 1878 when he came to America. Doctor von Neupert first established his practice at New Ulm, Minn. He later practiced in Dubuque, Iowa, and then in Colby, Wis. While in Colby he was appointed physician for the Wisconsin Central Railroad which position he held up to the time of his death.

He was a member of the Portage County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. While a resident at Stevens Point he held many positions of municipal and professional prominence. He was an active member of the Catholic Knights of Wisconsin.

CORRESPONDENCE

Editor, The Wisconsin Medical Journal,
Milwaukee, Wis.

In a recent circular letter from the Surgeon General of the Army it is announced that an examination for appointment in the Medical Corp of the Regular Army will take place, July 28 to August 2, 1924, and will include an examination in Anatomy, Physiology, Histology, Surgery, Practice of Medicine, Materia Medica and Therapeutics, Obstetrics and Gynecology.

Successful candidates will be ordered to active duty for a postgraduate course at the Army Medical School on full pay and allowances, and at the completion of the

course will be tendered permanent commissions in the regular Army.

Special examinations may be arranged for candidates who find it impossible to appear at this examination. These examinations are to fill existing vacancies and the full allowances, pay requirements, etc., were published in The Wisconsin Medical Journal, Vol. XXII, No. 6, November, 1923, page 284.

For further information apply Commanding General Sixth Corp Area, 1819 West Pershing Road, Chicago, Ill. Major W. Roberts, U. S. A., room 217 Metropolitan Bldg., 290 Third Street, Milwaukee, Wis.

Major Herbert B. Hanson, U. S. A., room 315 Pereless Bldg., Milwaukee, Wis.

Major Thomas L. Gore, U. S. A., National Guard Headquarters, Ripon, Wis.

Editor, The Wisconsin Medical Journal,
Milwaukee, Wisconsin.

Preliminary announcement of a prize essay competition on the vitally important subject "The Interrelationships of Hospital and Community," is made by The Modern Hospital Publishing Co., Inc., in the June issues of The Modern Hospital and The Nation's Health.

Three cash prizes of \$350, \$150 and \$100 will be awarded, and there will be such honorable mentions as may be authorized by the Committee of Awards.

The purpose of this competition is to concentrate the thought of hospital, public health, medical and social welfare workers on this timely subject for the purpose of crystallizing opinions and defining future objectives.

The general program for the competition may be obtained on and after June first from The Modern Hospital Publishing Co., Inc., 22 East Ontario Street, Chicago, Ill.

The Modern Hospital Publishing Co., Inc.

BOARD APPOINTMENTS ANNOUNCED

Governor John J. Blaine has announced the following appointments to the State Board of Medical Examiners: Dr. J. Gurney Taylor, Milwaukee; Dr. R. E. Flynn, La Crosse; and the re-appointment of Dr. G. H. Ripley of Kenosha. Doctor Taylor succeeds Dr. J. M. Dodd and Doctor Flynn succeeds Dr. Spencer Beebe of Sparta.

The State Board of Medical Examiners will meet in Milwaukee June 24th to 26th inclusive. This will constitute the regular June meeting of the board. The examinations and sessions of the board will be held at the Hotel Pfister.

DR. GLASIER APPOINTED

Gov. J. J. Blaine this month announced the appointment of Dr. Mina B. Glasier, Bloomington, to the State Board of Health. Dr. Glasier is appointed for the term expiring in 1931. She succeeds Dr. C. A. Richards.

First Preliminary Program for August Annual Meeting Announced

"A program that will bring to the Green Bay meeting the largest attendance in the history of our Society."

That is the aim of the Program Committee for the 78th Annual Meeting to be held August twentieth to twenty-second. In the accomplishment of this aim the Program Committee has been working continuously since December. The present general plan calls for two out of state papers for each of the three day sessions. A new policy has been established by the Committee in working up the rest of the material from within the membership of the Society.

All the special fields will be represented on the final program. As a broad policy, however, the Committee is endeavoring to secure that type of material that will be of most interest and application to all the members. The first preliminary program is listed herewith. Dr. W. E. Fairfield, chairman of the Committee, is now visiting in the East where he will complete the program of out of the state speakers. Several additional papers from within the state as well as a program arranged by days will be presented in the next issue of the Journal.

The present preliminary program includes the following:

- President's Address—Rock Sleyster, Wauwatosa.
- Types of Fractures Suitable for Open Operation—Joseph F. Smith, Wausau.
- Surgical Problems in the Management and Treatment of Toxic Goiter—Arnold Jackson, Madison.
- Standardization in Digitalis Medication—E. F. Bickel, Oshkosh.
- Pulmonary Embolus—W. J. Tucker, Ashland.
- Lowering the Threshold of Operability for Prostatism—James C. Sargent, Milwaukee.
- Syphilis of the Aorta—E. L. Miloslavich, Milwaukee.
- Some Problems in the Diagnosis of Pernicious Anaemia—T. L. Szlapka, Milwaukee.
- Hypert thyroidism and Hyperacidity — An Analogy — George Crile, Cleveland, Ohio.
- Fulguration in the Treatment of Cancer and Pre-Cancerous Conditions—T. W. Nuzum, Janesville.
- Repair of the Internal Ring in Oblique Inguinal Hernia—F. Gregory Connell and C. J. Combs, Oshkosh.
- Surgical Diathermy in the Treatment of Malignant Lesions of the Buccal Cavity and Skin—Francis B. McMahon, Milwaukee.
- A More Hopeful View of Cancer, with Special Reference to Gastric Cancer—K. H. Doege, Marshfield.

- Some Notes on the Treatment of Syphilis—James A. Evans, Boston, Mass.
- The Use of Ox-Bone in the Open Method Treatment of Fractures—Wilson Cunningham, Platteville.
- How Can We Better our Cancer Results?—W. E. Ground, Superior.
- Preservation of Function After Accidents to the Feet—J. M. Dodd, Ashland.
- Chronic Cervicitis and Endocervicitis—Carl H. Davis, Milwaukee.
—Frank Smithies, Chicago.
- A Micro Folin-Wu Method of Blood Sugar Estimation, Using One-Tenth c.c. Blood—T. L. Byrd, Milwaukee.
- Relation of Ureteral Stricture to Renal Calculi—W. G. Sexton, Marshfield.
- Fistulae of the Bladder—Cyril G. Richards, Kenosha.
- The Diagnosis and Significance of the Pathological Appendix—B. H. Orndoff, Chicago.
- Cataract Operations by Suction, the Barraquer Method—Samuel G. Higgins, Milwaukee.
Discussion—F. H. Haessler, V. A. Chapman, and G. I. Hogue, Milwaukee.
- Complication of Suppurative Inflammation of the Middle Ear—R. C. Smith, Superior.
Discussion—W. E. Grove, Milwaukee.
- The Action of Tryparsamid on the Optic Tract—E. E. Neff, Madison.
- The Use of Chlorine Gas in the Prevention and Treatment of Certain Respiratory Diseases, with Demonstration of Chlorine Gas Ejector—Lt. Col. Harry L. Gilchrist, M. C., U. S. D., Chief of Medical Division, Chemical Warfare Service.
Discussion—Gilbert E. Seaman, Milwaukee.

EXHIBITORS MAKE EARLY RESERVATIONS

Twenty reservations for space in the Exhibit Hall, just opposite to the hall in which all scientific sessions will be held, had been made by May fifteenth. With but thirty-one exhibit booths available, the early reservations indicate that the hall will be filled some time prior to the opening of the sessions.

Those who have already made reservations for the Commercial-Scientific Exhibit include:

- Abbott Laboratories, Chicago, Ill.
- Frank S. Betz Company, Hammond, Indiana.
- DeVilbiss Manufacturing Company, Toledo, Ohio.
- Dry Milk Company, New York City.
- H. G. Fischer Company, Chicago, Ill.
- Hanovia Chemical and Manufacturing Company, Newark, N. J.
- Horlick Malted Milk Company, Racine, Wis.
- Huston Brothers, Chicago, Ill.
- E. H. Karrer Company, Milwaukee, Wis.
- Kreiners—Urban Company, Milwaukee, Wis.
- John E. McEntosh, Chicago, Ill.



Bay View Beach Municipal Building which will house all scientific sessions and the commercial-scientific exhibits.

Medical Protective Company, Fort Wayne, Ind.
 Mellin's Food Company, Boston, Mass.
 C. V. Mosby Company, Publishers, St. Louis, Mo.
 Pengelly X-Ray Company, Minneapolis, Minn.
 Radium Chemical Company, Pittsburgh, Pa.
 Radium Institute, Green Bay, Wis.
 Roemer Drug Company, Milwaukee, Wis.
 W. B. Saunders' Publishing Company, Philadelphia, Pa.
 G. D. Searle Company, Chicago, Ill.

As further reservations are made they will be added to this list for the information of our members. A complete list with space chart will be published in the August number.

ENTERTAINMENT PLANNED

Extensive plans are now well under way for the entertainment of the members and their wives. Among the special features are a college group smoker and the annual banquet. Both events will be held in the spacious ball room of the new Hotel Northland. Following the banquet the tables will be cleared for dancing while a special room has been reserved for those who prefer cards.

A special park will be provided for the automobiles of those who drive to the meeting and the industrious motorcycle police will confine their activities strictly to local cars. At least, so the Committee promises.

For those who bring their favorite clubs, cards will be available to the Green Bay Country Club.

A fleet of automobiles will be placed at the disposal of members who come by train. All members of the Brown-Kewaunee county society will

wear distinctive badges and the reception committee promises that no member will leave the meeting without a greatly increased acquaintanceship.

AMENDMENT PROPOSED

An amendment to the by-laws of the State Medical Society will be proposed at the 78th Annual Meeting to be held at Green Bay August 20-22 inclusive. The amendment proposes to change the name of the governing body of the Wisconsin Medical Journal from "The Committee on Publication" to "The Editorial Board."

Section 4 chapter VIII of the by-laws now reads:

SEC. 4 The Committee on Publication shall consist of three members and the Secretary and Treasurer. The Committee shall be in charge of the affairs of the Journal, and shall appoint the Editor and Managing Editor. The Committee shall render the annual report to the House of Delegates and to the Council at its January meeting.

The amendment proposed follows:

Strike out the words "The Committee on Publication" in line 1 and substitute "The Editorial Board." Strike out "and the Secretary and Treasurer" in line 2 and substitute after the word "members" "to be elected by the Council at its January meeting and the Secretary and Treasurer." Strike out the words "The Committee" in line 3 and substitute "The Board." Strike out the words "The Committee in line 5 and substitute the words "The Board."

The proposed amendment was submitted by the Publication Committee at the January meeting of the Council and the Council authorized its submission to the next meeting of the House of Delegates. Since the establishment of a full time lay Secretary-Managing Editor the Publication Committee has acted, in fact, as a Board to pass upon original articles and editorials submitted to the Journal. The amendment is to accomplish in the by-laws what is now in effect the policy of the Journal.

Some Medical Considerations For Discussion*

"We have either to lead or be led, and the only way we can lead is by directing public health thought along proper, intelligent lines, not merely as individuals, but as an organized profession."

BY EDWARD EVANS, M.D.,
PRESIDENT, THE COUNCIL, STATE MEDICAL SOCIETY,
LA CROSSE

I might appropriately begin these remarks with a quotation from "Alice in Wonderland":

"The time has come, the walrus said,
To speak of many things;
Of shoes and ships and sealing wax,
Of cabbages and kings."

There are many problems connected with our profession as a whole, and for those of us especially who have the privilege of practicing in hospitals.

Those of us who follow the status of the medical profession in England and Germany must have noted that they are in a bad way. In England some thirteen millions of people are taken care of professionally under the Insurance Act, and the doctors who take care of them are called panel doctors. That is, they sign up for so many families, and those they take care of, for a remuneration of eight shillings a year. This includes all medical and surgical attendance except that requiring so-called specialist attention, which is otherwise provided for. This fixed remuneration, very small of course, is not the worst of their troubles. The act is administered through the so-called societies—insurance organizations somewhat similar to some that we have in this country and which were in existence previous to the enactment of the Insurance Bill in 1912.

In Germany a large proportion of the people are taken care of in a somewhat similar way. There, on account of the great depreciation of the currency, matters are much worse. But aside from this, they, too, are having very serious trouble with the sick societies which administer the law.

You may say that there is no danger of such a condition in this country, but we should not be too confident. The English medical profession was even more individualistic in its professional attitude toward the public than we are. Yet,

almost out of a clear sky, in 1912 Lloyd George forced this measure through parliament against the great opposition of the profession, and there appears to be no likelihood at all that it will ever be rescinded, certainly not in the near future. Even before the war the medical profession in Germany was rebelling against the straight jacket in which it was being put. The profession in other European countries are being forced into a similar position.

It behooves us, therefore, as a profession in this country, and especially the younger amongst us, to take note of the trend of events and see to it that by leadership and education we retain control of the health problem in the United States. Even a superficial knowledge of the tendency of public opinion in this country as evidenced by legislation, especially legislation on public health, shows that we are drifting rather rapidly into a position where we are going to be largely dictated to by bureaus in our state capitols, and what would be even worse, from Washington.

It is no use for us to register kicks or knocks against what we may consider invasion of our rights. From this we will get no results at all. We have either to lead or be led, and the only way we can lead is by directing public health thought along proper, intelligent lines, not merely as individuals, but as an organized profession.

In this connection it is interesting to see in the last bulletin of the A. M. A., an address given by a newspaper man to a medical gathering. He points out very clearly and pointedly the attitude of the public toward the aloofness of the medical profession in dealing with the public, and has some very interesting suggestions for the profession.

Personally, I believe that one of the best things the county medical societies could do would be to have published once a week in the papers of their district, educational material written by members qualified to do so, and passed upon perhaps by a

*Reprinted, with additional notes, from *The Hospital Progress*, March, 1924.

board of censors and published under the name of the county society. There is no question at all, I think, that the cults are making such great headway, and this without any professional knowledge and practically always as pure frauds, because they take their patients into their confidence and, of course, advertise largely, and needless to say, unscrupulously. I am not advocating that the profession should advertise its wares and its ability as individuals or even as an organized profession, in county or state or nation. But we are, or should be, educated so far beyond the public in health matters and medical and surgical procedures, as to be able to give information worth while. We should always remember that we are pseudo-public servants licensed by the state to do certain things, and these things do not consist merely in making calls or doing operations at so much per. If we are true to our profession and live up to its best ideals, we have a duty to do and a service to give that can never be measured in financial terms. I think it is absolutely true that if we are not going to give this service, we are going to be told, and that before another generation has passed, to do it, and what would be more unfortunate, how to do it.

In the same A. M. A. bulletin referred to above, is a thoughtful discussion on group practice. It seems to me that group practice is still on trial. Only where a strong, competent man is at the head of the group, does it appear to me that it is likely to be a permanent success, measuring permanence by the life of said leader, unless an equally competent one can be developed to take his place. Where a group of men who are competent in their various specialties and have been trained in this line come together on a professional basis, it seems to me there can be no doubt that they can give better service than can the individual practitioner. Unfortunately many of the groups we know of and hear about are not formed on this basis, but rather on a commercial basis. This sort of group I believe is reprehensible. In any case, group practice has one serious handicap, and that is the overhead expense. To fit a clinic with the necessary scientific appliances and apparatus for thorough investigation in all its phases, requires a large expenditure of money, and whether the group be formed on the partnership basis or on the basis of salary, if each man

is competent to do the work he professes to be expert in, the overhead becomes very large. In consequence the individual income of the members of the group does not net as much as the income of each when practicing individually. Or, if it is kept on a paying basis, many patients are charged exorbitant fees. After all, the great majority, perhaps ninety per cent, of patients, are best treated by the individual, well trained, conscientious doctor, and no group investigation is required.

There are many other phases of group practice which might be considered. On what basis should earnings be divided and how often revised on earning capacity? Or, for instance, a man who works in the group may use it just long enough to get an introduction to the community through the established reputation of those with whom he is working, and then start for himself and, of course, in that way, might we say, unfairly, take advantage of the position which he had held. Or again, those who control the group may hold men at too small salaries for the work they are doing for the group. So far, I believe, the success of group practice depends entirely on the competence, honesty, and idealism of those in the group. It is interesting to note that in the East, in Boston perhaps more especially, group practice is absolutely frowned upon.

If doctors were constituted a little differently from the ordinary human being, which unfortunately they are not, it seems to me an ideal group practice would be that of the staff of a hospital cooperating with each other and giving to the patient the very best of the combined knowledge of the staff.

In the January HOSPITAL PROGRESS is a very interesting, thought-provoking article by Father Moulinier, who has perhaps the best grasp of the fundamental principles of medical practice of any one in the United States, and this, I think, is pretty generally acknowledged by leaders in the profession. In his article, entitled "The Licensed Practitioner," Father Moulinier discusses what the state license signifies, which after all is merely that a man has passed certain examinations and is given legal right to practice the various branches of the healing art. It does not signify that the man so licensed may be capable of doing surgery, or perhaps any other specialty for that matter. In fact, it does not in any

manner signify that he is qualified to be safely trusted with the treatment of sick people, and if it did signify that, it is no guarantee that that man five or ten or fifteen years hence is at all abreast of medical science. If he has not a fair amount of gray matter, and even if he has, if he does not study, he is unqualified. Father Moulinier, therefore, makes the interesting suggestion that in some way medical graduates be examined perhaps every five years as to their fitness to continue in the medical profession.

A few months ago in the same journal, *HOSPITAL PROGRESS*, Dr. Joseph De Courcy of Cincinnati had a very interesting paper on the subject of helping the young graduate. Apparently in the hospital where he works they have rather an ideal condition, because when a young doctor is admitted to the staff, either permanent or courtesy, and shows some ability, he is assisted by the senior members in his cases. This predicates a condition which I am afraid does not exist in St. Francis. The young man with us seems competent to undertake any operation or other line of treatment on his patient, unaided and unadvised; and perhaps to a greater extent the older men amongst us intimate by conduct that there is not over anxiety to train the young man as a possible future competitor. I do think, however, that this condition is very much better than it was, and it would be very much better for the patients in our hospital were it very much better than it is. If any one man on our staff is better qualified to do a certain thing than is the one having the patient in charge, it seems to me that it is a moral obligation on the part of the latter to seek counsel with the former, and thus give the patient the benefit of the best combined knowledge that we have.

Time was, not so long ago, when the young man broke into surgical practice whatever his training or lack of training for that specialty, by the fifty-fifty or some similar route. Unfortunately some still think it honorable. Personally, I think that as a whole, medical cases, since they constitute about 90 per cent of all cases in general practice, are more neglected than the surgical, inasmuch as they are not so thoroughly investigated as they might and should be. We are all agreed that diagnosis necessarily precedes proper treatment. We know equally well that too often

the investigation necessary to arrive at a proper, full diagnosis is not made before treatment is instituted. The great danger in surgery is that unnecessary operations may be done unless a person has qualified himself to make proper surgical investigation to learn when not to operate as well as when to operate. We all know of operations that have been unnecessarily done. Any of us long in practice, I am sure, have done them. Yet a paper like that Doctor Bannen read before the Wisconsin Surgical last spring, showing that out of twenty cases of right-sided urinary trouble, sixteen had had the appendix removed and two others were advised to have the abdomen opened, illustrates how gross mistakes may be made.

Any one taking up the practice of surgery today has no excuse for beginning without proper training such as those of us who began to practice surgery thirty-five years ago could not get. Then, the most conscientious man had to learn it largely as Doctor Price of Philadelphia said he learned to do laparotomy—by sleeping on a plank outside his patient's door.

The College of Surgeons' requirements I think are low enough: graduation from an A-1 school, an A-1 internship in surgery and pathology, three to five years of assistantship with a surgeon, and eight years of practice from time of graduation, before a degree of F. A. C. S. is given. Especially does the College of Surgeons scrutinize what articles the candidate has published, what post graduate work he has done, and what clinics he has visited. Osler speaks of second hand knowledge as that acquired from reading only. This does not best qualify even the good student. The correspondence school is taboo! I wish to be understood as speaking of surgeons, not of operators.

On a recent trip east I had the pleasure of spending some hours in Mercy Hospital, Pittsburgh, and I was impressed to find what a splendid organization they had and what splendid cooperative work was being done in the hospital—larger than ours, true, and with more specialties actually represented, but nevertheless a staff organized much as is ours. There they had a library of one thousand volumes; they had all the current literature, and a full-paid expert librarian who kept everything in order, was at the service

of any member of the staff to look up references and literature, who kept a record of every book or journal borrowed, and of the number of readers who visited the library during the year. (At the time of my visit more than 1,500 of the staff, including interns and students, had used the library.) This library was maintained entirely by the staff, and the librarian's salary was paid by them, each staff member contributing one hundred dollars a year. They were most enthusiastic about it. The librarian assured me that it had had a most stimulating effect on the staff; even members who opposed it at first being now enthusiastic.

The staff of this hospital holds a weekly conference besides the monthly staff meeting, and at the one I attended there were presented by the pathologist, post mortem specimens from two cases. These were discussed pro and con by the staff members. One of the internists then led a very smart discussion on pneumonia and its varying mortality each year.

The question of education of the intern is an ever recurring one and in the *A. M. A. Journal* of January 12th, 1923, is an article on the subject. There is no doubt at all that the staff doctors do not give to the training of the intern the time and thought they should. It would be so easy for us when the intern is assisting us at an operation, for instance, to give him some anatomic or pathologic problem relating to the operation, for review. Asking him to do this is of little value unless we check him up on it afterward. Again, it is entirely unfair to ask the intern to take histories month after month unless we show interest enough in our patient and his history to review his record with him; and we should in every case allow him to make physical examinations other than gynecological. But here again, unless we review his findings this can be of small value to the intern. In other words, it should be our pleasure as it is our duty, to make a companion of the intern in our investigation of patients, reviewing the case with him, telling him where to look for literature on the subject, stimulating him in every possible way, and endeavoring to lead him on to careful work by painstaking, sympathetic, helpful suggestions and direction.

If you will review the article on hospitals in the *A. M. A. Journal* of January 12th, you will

find what a great dearth of interns there is, and slowly, it may be, but surely, the information will spread amongst graduating classes in the medical schools until only those hospitals which show proper internship service will be able to get interns.

The development of hospitals in the United States is one of the remarkable social phenomena in the country since 1906. In that year we had 2,411 hospitals, now we have 6,830. Not only have hospitals increased enormously in number, but also in efficiency, in care of the patient, and in scientific equipment. What has been even more remarkable, and more embarrassing too, is the enormous increase in cost of maintenance. The figures of the United Hospital Association of New York, which has the most reliable data, show that the cost per patient per day has increased since 1912, when it was in the group of hospitals in this association, a minimum of \$1.24 and a maximum of \$2.80, or an average of \$2.55 a day, while in 1922 the minimum was \$4.10 and the maximum was \$7.75, or an average of \$5.15 per day. This means an actual cost per day per patient, not what the patient is charged by the hospital. There are many reasons for this: 1. The greatly increased cost of labor. 2. The demands for service which have increased the hospital personnel enormously. 3. Shorter hours for the service. 4. The greatly increased cost of food and of hospital supplies. 5. The demands made by the attending staff for better service in the shape of libraries and scientific equipment, stenographers for record keeping, trained administrators, expert technicians, and high class dietitians.

Since these latter requirements—equipment, technicians, stenographers, etc., are provided largely for the benefit of the attending doctors, it seems only fair on the part of the hospital administration that they ask staff members who are allowed the privileges and conveniences of the hospital, to accept some share in this added burden and be willing financially and by every means in their power to promote the best interest of the hospital. This aid should, I think, include not only hearty cooperation in every way, but unselfish personal service to the institution in which we work.

We should be willing, I think, to follow at least

in some degree, the work being done by the staff at Mercy Hospital at Pittsburgh in providing a library properly manned and maintained. We should be willing to give of our time and service in the education of the nurses in the training school. We should give our very best to the interns provided for us, in the shape of instruction and training in history taking and physical examination, and give them as much work at the operating table as we think safe under personal guidance, allowing them to make preliminary incisions, to sew up the abdomen under careful supervision, and in simple operations to perform the whole operation under our guidance. But more important than any of these things for the intern, I believe, is an attitude of strict, professional conduct, training in systematic reading, and, where possible, some research. By both precept and example, endeavor always to hold

before them the dignity and honor and importance of the medical profession. In the Sisters' hospitals, where those in charge are devoting their lives to care of the sick without hope of honor or compensation from the world, we should always, by courteous cooperation and interest in the institution, show that we appreciate what they have provided for us. We cannot afford to be parasites, accepting and never contributing.

Like the walrus in "Alice in Wonderland," I have spoken of many things. If I have stimulated you to think and act as I will be able to judge from the discussion this paper may bring forth, I will be satisfied. I might conclude in the words of Secretary Mellon in one of his recent letters, when he said in speaking of the tax problem:

"What is wanted is a diagnosis and a cure, not a post mortem and a verdict."

Tri-State Hospital Convention to be Held at Madison June 25-27th. Large Attendance Anticipated

Members of the State Medical Society are all invited to attend the annual Tri-State Hospital Convention to be held in Madison June 25-27th. The committee in charge of the meeting extends a special invitation to all readers of the Journal to be present and take part in this meeting.

In extending the invitation the committee points out that the hospital is the physician's "workshop" and that only through the constructive criticism and suggestions of the physician, can the hospital conference attain the best results. An attendance of upwards of 350 physicians and surgeons is anticipated for the meeting. The program follows:

PROGRAM OF THE TRI-STATE HOSPITAL CONVENTION

June 25th, 26th, and 27th, 1924
STATE CAPITOL BUILDING
MADISON, WISCONSIN

MORNING SESSION

Wednesday, June 25th, 9:30 A. M.

Rev. Herman L. Fritschel, President Wisconsin Hospital Association, Presiding.

Invocation—Rev. Otto J. Wilke, Madison, Wis.

Address of Welcome—Hon. John J. Blaine, Governor of Wisconsin.

Remarks—James P. Dean, M.D., President Dane County Medical Association.

Address—Rev. Herman L. Fritschel, President, Wisconsin Hospital Association.

Central Schools of Nursing—Miss Gale Fauerbach, R.N., Instructor Central School of Nursing, Milwaukee, Wis.

Discussion—By Miss Marian Rottmann, R.N., Superintendent of Nurses, Mt. Sinai Hospital, Milwaukee, Wis.

12:00 to 1:00—Luncheon in the Capitol Cafe, downstairs. The Association has arranged this luncheon for your convenience. Those interested in similar lines of work are urged to lunch together.

AFTERNOON SESSION

Wednesday, June 25th, 2:00 P. M.

The Relation of the Teaching Hospital to the Community—Bert W. Caldwell, M.D., Superintendent of the University Hospital, Iowa City, Iowa.

Discussion—By Walter E. List, M.D., Superintendent, Minneapolis General Hospital, Minneapolis, Minn.

Hospital Accounting—Fayette H. Elwell, C.P.A., Head of Accounting Department, University of Wisconsin, Madison, Wis.

Discussion—By Myron W. Snell, M.D., Supervisor Tuberculosis Sanitarium, Soldiers' Home, Milwaukee, Wis.

The Relation of the State Board of Health to the Hospitals in the General Health Program—C. A. Harper, M.D., State Health Officer of Wisconsin, Madison, Wis.

Discussion—By Rev. J. W. Irish, Executive Secretary, Wisconsin Methodist Hospital and Home Association, Madison, Wis.

5:00 to 6:00—Study of Commercial Exhibits.

EVENING SESSION

Wednesday, June 25th, 7:00 P. M.

Banquet in Crystal Ball Room, Hotel Loraine.

Presiding—Colonel Joseph W. Jackson, Director of Jackson Clinic, Madison, Wis.

Music—

Addresses—

Fundamental Principles Involved in the Hospital Standardization Program—Malcolm T. MacEachern, M.D., President, American Hospital Association and Associate Director, American College of Surgeons.

The American Hospital Association—A. R. Warner, M.D., Executive Secretary, American Hospital Association.

The Development of Hospital Work During the Past Twenty-five Years—Mr. E. S. Gilmore, Superintendent, Wesley Memorial Hospital, Chicago, Ill., and President-Elect of the American Hospital Association.

The Hospital's Function in the General Community Program—

MORNING SESSION

Thursday, June 26th, 9:00 A. M.

K. H. Van Norman, M.D., President of Minnesota Hospital Association, Presiding.

9:00 to 9:30—Study of Commercial Exhibits.

Hospitals in Relation to Medical Schools—Charles R. Bardeen, M.D., Dean of the Medical School, University of Wisconsin, Madison, Wis.

Discussion—By Louis B. Baldwin, M.D., Superintendent, University Hospital, Minneapolis, Minn.

The Service of the Psychiatric Institute to Hospitals—W. F. Lorenz, M.D., Director of the Psychiatric Institute, Mendota, Wis., and Professor of Nervous and Mental Diseases, University of Wisconsin.

The Hospital Laboratory—By Dr. E. L. Miloslavich, Professor of Pathology, Marquette University, Milwaukee, Wis.

Development of the Laboratory in a One Hundred Bed Hospital—F. P. McNamara, M.D., Pathologist, Finley Hospital, Dubuque, Iowa.

Discussion of Papers on the Hospital Laboratory—By Wm. D. Stovall, M.D., Director of Laboratory of Hygiene, University of Wisconsin, Madison, Wis.

11:15 to 12:00—Meetings of separate State Sections.

12:00 to 1:00—Luncheon in the Capitol Cafe. Delegates are urged to lunch together and discuss hospital problems.

1:00 to 2:00—Study of Commercial Exhibits.

AFTERNOON SESSION

Thursday, June 26th, 2:00 P. M.

Round Table on Hospital Problems—Conducted by Bert W. Caldwell, M.D., Superintendent, University Hospital, Iowa City, Iowa.

Assisting Dr. Caldwell:

K. H. Van Norman, M.D., Superintendent of the Charles T. Miller Hospital, St. Paul, Minn., and President of the Minnesota Hospital Association.

Mr. William Mills, Superintendent of Swedish Hospital, Minneapolis, Minn., and Secretary, Minnesota Hospital Association.

Mr. J. E. Haugen, Superintendent of St. Paul Hospital, St. Paul, Minn.

W. A. Henke, M.D., Chief of Staff, Grandview Hospital, La Crosse, Wis.

Miss Grace T. Crafts, R.N., Superintendent of Madison General Hospital, Madison, Wis.

R. C. Buerki, M.D., Superintendent, University Hospital, Madison, Wis.

Miss Adda Eldredge, R.N., Director of Nursing Education, State of Wisconsin, and President, American Nurses Association, Madison, Wis.

Mr. J. G. Norby, Superintendent, Fairview Hospital, Minneapolis, Minn.

Miss Elizabeth Meyer, R.N., Superintendent of Nurses, St. Luke's Hospital, St. Paul, Minn.

J. J. Bellin, M.D., President, Board of Trustees, Wisconsin Deaconess Hospital, Green Bay, Wis.

Miss N. Adele Northrop, R.N., Superintendent, Finley Hospital, Dubuque, Iowa.

F. E. Sampson, M.D., Chief of Medical Staff, Greater Community Hospital, Creston, Iowa.

Miss Vera Henderson, R.N., Superintendent, Children's Hospital, Milwaukee, Wisconsin.

4:30 to 6:00—Study of Commercial Exhibits.

7:30—Boat trip around Lake Mendota.

MORNING SESSION

Bert W. Caldwell, M.D., Superintendent, University Hospital, Iowa City, Iowa, Presiding.

9:00 to 9:30—Study of Commercial Exhibits.

Physiotherapy in Gynecological Diseases — Henry Schmidt, M.D., Physiotherapist, Chicago, Ill.

Discussion—By J. C. Elsom, M.D., Head of Physiotherapy Section, Jackson Clinic, Madison, Wis., and Robert S. Ingersoll, M.D., Superintendent, Madison Sanitarium, Madison, Wisconsin.

Planning of Nurses' Homes—Rev. Herman L. Fritschel, Director of Milwaukee Hospital, Milwaukee, Wis.

Discussion—By Mrs. Irene English, R.N., Superintendent of Nurses, Kahler Hospitals, Rochester, Minn., and Miss Helen S. Wipperman, R.N., Superintendent, Mt. Sinai Hospital, Milwaukee, Wis.

Hospital Management from a Hotel Man's Viewpoint—Mr. Roy Watson, Assistant General Manager, Kahler Corporation, Rochester, Minn.

Discussion—By Mr. Charles Karrow, Superintendent, Columbia Hospital, Milwaukee, Wis.

12:00 to 1:00—Luncheon Hour—Hotel Loraine.

1:00 to 2:30—Study of Commercial Exhibits.

2:30 to 6:00—Automobile tour of City and visiting the Hospitals of Madison.

Saturday, June 28th.

For the benefit of those staying over the week end all the Hospitals of Madison will be open for inspection from 2:00 to 5:00 P. M., Saturday.

TWENTY SOCIETIES VISITED

Twenty of the fifty-three constituent county societies had been visited by the Secretary of the State Society by June first. Immediately following the annual meeting in August these trips will be resumed. It is felt that only in this way is it possible to acquire the suggestions that will promote the work of the State Society.

The Hospital Proposition—An Independent Survey. State Architect Reviews Present Needs

BY ARTHUR PEABODY,
STATE ARCHITECT,
MADISON

Editor's Note—This is the last of a series of four articles by Mr. Peabody. Previous articles appeared in the February, March and May numbers.

INDUSTRIAL SCHOOLS, HOUSES OF CORRECTION, REFORMATORIES AND PRISONS

As a general comment, the institutions named above might be said to represent the steps of a stairway leading downward to a finality. Under the old assumption that penal institutions constituted a substitute for individual reprisal, they were supposed to satisfy the demands of justice, to serve as a deterrent to crime, and to bring to the victims of offenders a feeling that retribution was not impossible to obtain. On the whole, this view of the penal system has left much to be desired. It is admitted, however, to be an improvement upon private vengeance which too often fails of its object. To some extent it has deterred the amateur thief and pickpocket. How much it affects the professional criminal is not certain.

While the principle of retribution and the function of a deterrent may have been badly served so that penal institutions have suffered some loss of reputation on this account, the public generally remains to be convinced that they may well be done away with. Other elements enter into account. Certain persons must be inhibited from the practice of their professions. Among such are those for whom there is no reasonable hope of a change of heart. These are "deceitful and desperately wicked." And so, as with the feeble-minded and the insane, they must be permanently restrained. The manner of their segregation may vary, but it should be sufficient for the protection of society. Such persons constitute only a certain proportion of the prison population, the rest being what may be called occasional offenders, likely to repeat their misdeeds under favorable circumstances but not making them a regular profession. Beside these are the persons with whom once is enough. To

discriminate between these, so far as regards treatment within the place of confinement, may be impracticable. Good conduct during residence in a penitentiary is not always an indication of what may be expected upon release. Some prisoners may be called constitutional criminals. Probably all criminals would prefer to be honest if by that means they could obtain everything they desire. But honesty by itself is hardly ever sufficient. One must actually give something for what he receives, and this does not appeal to their scheme of life.

Right living then is a matter of moral control, of balance and of willingness to play the game. It requires, for the attainment of ordinary perfection, a sound mind in a sound body. Insofar then as the hospital can assist in building up this condition its connection with penal institutions ought to be maintained and developed. There remains the difficulty that the contact of the hospital with prison inmates occurs, of course, after a considerable period of suffering from a disease or disability which if taken in its early stages would be more responsive to curative measures. However, the offices of the hospital should be applied until it becomes plain that such aid will no longer be effectual.

INDUSTRIAL SCHOOLS FOR BOYS

The industrial school is frequently located within the limits of some town, so that the utilities furnished by cities of light, water and sewer are available. Otherwise they must be created as with all isolated institutions. Under the old regime, a wall enclosed these places, with watchmen and the other accessories of a prison. It may be that the present day program of leaving everything quite open swings too far on the side of false tenderness. Humanitarianism does not lie in the absence of restraint but rather in actual striving for the boys best interests. A reasonable fence which may, of course, be climbed, but which demands a serious effort to manage, has a psychological influence more valuable than a wall and quite as conducive to good conduct as the prevailing notion of no enclosure at all. Boys

not intending to escape look, on the contrary, for protection. They are still children. It would be interesting to find out how far an institution arranged in a quadrangle wholly or partly enclosed would go in creating a community spirit among the inmates of a school of this sort.

Two story buildings would seem to be very well suited for dormitories, administration buildings and infirmary, with single story dining and kitchen buildings. The dormitory quadrangle will represent to the juvenile mind the home. For this reason the arrangement should be pleasant and to a certain degree beautiful. For the vagrant boy, one with the tendency to wander, the home feeling should be cultivated. School buildings, shops and barns should be away from the quadrangle a convenient distance. They should not be mixed up in any way with the home. This is conformable to the traditions that education and work are separate from home life. Discipline, insofar as it represents taking one away from the pleasures of life, may require a separate building, a sort of imitation house of duress, which also should be separate. Playgrounds if not within the quadrangle should be adjacent to it for convenience.

The industrial school is for "vagrant, incorrigible and criminal boys." Inmates may be committed from the rather early age of eight years up to about sixteen as a maximum. Evidently the actual mental and moral development of persons committed between these limits will vary considerably, and the arrangement and program of an institution for treating such material is complicated. The construction or reconstruction of character is constantly interfered with by the admission of fresh candidates who react on those already started on the upward trend. Yet boys, no matter of what sort and condition, are susceptible to the right kind of influence. This, of course, does not mean indulgence, nor inflexible severity. In fact, there can be no stereotyped course of procedure and so the problem of making good boys out of unformed or badly formed material is difficult. Experience shows, moreover, that in all institutions there are examples of the subnormal, the diseased and the misshapen. The effects of infant paralysis, scarlet fever and other children's diseases are frequently discoverable. These will constitute

permanent disabilities if allowed to go without proper treatment.

Finally, the function of the industrial school is to help the boy in every way; to set before him a definite and excellent program of living, one that he is capable of following with satisfaction and respect. It cannot be without discipline. It is greatly advantaged by the elimination of physical handicaps. Hours of work and hours of play are essential to the training, but beyond this there must be the inculcation of a correct theory of life. Under this program the industrial school need not be the training ground for the reformatory, but for a horizon in the opposite direction.

REFORMATORIES

Reformatories are commonly isolated institutions requiring original sources of water supply, heat, light and power, a sewer system, etc. They are ordinarily surrounded by a wall with guard houses, special gates, and practically all the paraphernalia of a prison. The dormitories, dining rooms, kitchen, storage rooms, wardens' and deputies' offices and the rooms for board meetings complete the detention buildings. Beside these are the infirmary, and the punishment building, called the solitary, and the shops, barns and storage buildings, the heating and power plant. In some institutions a gymnasium and auditorium are added.

The physical difference between the reformatory and the prison is hard to see. The same discipline, the same plan of operation appears to obtain, with the exception that school room sections and classes in elementary education are included which may not obtain with the penitentiary. The question as to the appropriateness of all this may be beyond the horizon of the ordinary observer. Whether the element of reform is sufficiently stressed is open to argument. It is, of course, useless to anticipate the same response to well intended effort as with younger boys. The problem is more difficult by reason of the sophisticated mentality, and experience in actual wrongdoing and the personal opinion that the world owes one a living and that one's effort should be to collect it. This state of mind may arrive as a result of some handicap such as ill health, defective vision, lack of education, or of opportunity, reacting upon a poorly balanced character. It may have come about simply by reason of a

set purpose to prey on the attributes of liberty and to evade the burden and responsibility of a man.

The question is how to dislodge these proclivities and to build over again. As a first movement, it would seem to be necessary to submit the candidate to the clinic, and to discover whether medical or surgical treatment will modify conditions. The reformatory inmate is sometimes found to be subnormal or diseased, burdened with infirmity, suffering from under nourishment or from disintegrating vices. There is plenty of room for hospital treatment in many cases. With others, just the steadying effect of regular hours and occupation is all that is required. In any event, the reformatory ought to send its graduates out distinctly benefitted physically and mentally upon the expiration of their terms. It is not certain that penitentiary methods are best suited for bringing about these results, however, excellent a preparation they may be for a prison existence at some future time. In fact, it is not entirely conceded that present day penitentiary methods are best suited even for adult convicts.

In order to inaugurate new methods, a different plan of procedure would need to be adopted. This might contemplate smaller and differently constructed dormitories, multiple dining and work rooms, exercise yards, etc., so that the destructive influence of mass association would be minimized. Under the plan of group segregation, the discipline would not need to be adjusted everywhere to the needs of the most difficult persons. The more intelligent and amenable could be subjected to such constructive influence as would tend to augment a visible intention toward reform. At all events, they would learn less of the trade of the criminal than even the repressed discipline of the present reformatory permits. Along with this program some readjustment as regards deputies and under-officials would be necessary. Without delivering the inmates over to a purely theoretical regime there would be room for a more flexible system, not inconsistent with practical operation of the institution.

PENITENTIARIES

The penitentiary as now designed is of considerable dimensions. A capacity of two thousand persons is not unusual, though in Wisconsin the number now confined is about one-half that.

The prison at Stillwater, Minnesota, is a good example of the modern type. The buildings are large and solid, surrounded by a wall about twenty-two feet high with watch towers and guard walks. Gates for wagons and railway trains are double, the first opening into a separate walled enclosure and the second from this to the prison yard. The gates are operated by electric power. Visitors are admitted to an outside vestibule and from that to the administration section of the main building. The cell halls in connection are extensive and high. In the center of each hall is the cell block of four stories, double faced, the cell fronts facing toward the windows on each side and about sixteen feet from the outside wall. The cells, six feet wide, ten feet deep and seven feet high, are approached from balconies extending the length of the cell block with stairways at the ends. Each cell has a bunk, a washbowl and toilet and a chair and small table. Fresh air is blown into the cell hall and exhausted through vent ducts in the back of each cell. The cells are lighted by electricity. The fronts are of steel bars with sliding doors. A lever at the end of the block operates the entire number of locks in the cell row. Individual cells may be unlocked by the deputy's key. Between the double row of cells a utility corridor extends, containing the plumbing pipes, etc. The cell hall as such is well nigh perfect.

The other buildings of the institution are large. Beside the heating and power plant with its electric equipment and water pumps, coal vaults and ash bunkers, a thoroughly modern installation, there are the warehouses for foodstuffs and materials for manufacture. Shop buildings with machines for making twine are quite extensive and well equipped. Repair shops for carpenters, painters, iron workers and the like, the greenhouse for starting vegetables, and the root cellar, complete the industrial buildings. Beside these are the dining halls, the auditorium, the infirmary and the "solitary." The entire area of the prison enclosure may be twenty acres or more.

The intention of most prison wardens is to treat everyone uniformly. But this necessitates equal severity in all cases, or in other words, a leveling down to the requirements of the most intractable. It is beyond the experience of the casual observer to know whether this is necessary. At all events,

the system is rigid. One wonders whether a thousand men selected for confinement in prison are altogether alike. It has been stated that killers and bank robbers are the aristocracy of criminals compared with whom the humble thief is nowhere. The absolute democracy suggested by the uniform treatment of the prison program is, therefore, not so nicely fitted to the occasion as one would imagine. It is only an approximation. It must be that some other reason for the plan obtains. The patent cell block permits the stowing away of a number of inmates at once. The neat squad is either in or out. This minimizes the number of guards per hundred. The system, in short, is based on economical operation rather than particular attention to individual possibilities.

Physical conditions are not bad at all. That is to say, the men have three good meals a day and a clean place to sleep. Working hours are not excessive, Saturday afternoon and Sunday being free from labor. The cell blocks are occupied only at night and for short intervals in the daytime. The cells are sombre and space is brought down to a minimum. With all the precautions incident to persistent oversight, however, some men are burdened by the involuntary association with the rest and are more or less glad when locking up time arrives. Even a prison cell can take on character when it constitutes the only place where a man can feel himself to be alone.

The best wardens in the country believe that the cell block and walls system now in use is the only one practicable. They well know that at the slightest opportunity riots take place and escapes are made. The only way to keep men in subjection is to leave no possible chance for starting trouble. That is the reason for the neat squad, the cell block, the wall and the entire military system. To divide the prison into sections would increase cost, add to expense and gain nothing.

These wardens find, however, that selected groups of men may be safely employed without the walls, as on the prison farm for example, or in a prison camp. The camp consists of rough bunk houses with cots in an open dormitory, and a kitchen and dining building. The area of the camp is marked out with stakes and little placards reading "Do not go beyond this sign." A certain number of guards are present, but the

entire work of the camp is done by the men. In any such group, certain men are unable to stand the strain, or become quarrelsome or indifferent and must be returned to the institution. Aside from this the camp succeeds and may continue more than a year in the same place, perhaps a hundred miles away. Certain hazards are inseparable from this procedure. Escapes may occur, a guard might be overpowered, and so forth. On the whole, however, the camp is an argument for selective grouping and special treatment.

It is proper to state here that prisons are not all based on the plan of the standard cell block. The round prison at Kankakee, Illinois, is only a variation of the same idea, but at Guelph, Ontario, the dormitories are actual private rooms opening upon corridors and having windows in the outside wall. This is a radical departure bringing about complete separation of prisoners at night.

From this plan to the one of segregation into groups, for some purpose other than convenience of handling the men, would be a shock to every deputy warden in the country, but would seem to have a basis of reason.

A further plan might cover the whole ground of segregation so that persons assigned to certain groups would never come in contact with men of other groups, but have their own dormitories, dining rooms, work shops and exercise grounds. This would be regarded as radical.

MASS TREATMENT

The reasonable justification for such a program would be partly the comfort of the prisoner, but primarily to prevent the inevitable degeneration consequent on mass treatment and mass association. It opens the way, so far as the material permits, for the work of rebuilding character. With those for whom "once is enough" there is a probability under this plan that the man will not be made worse instead of better by confinement. Of course, segregation alone gets one nowhere. There must be a new program of operation more extensive than the old. It must attempt improvement in the physical, mental and moral make up of the individual so that when prison days are over he will be better fitted to succeed in honest living. Doubtless a considerable portion of the attempt will be without results. But if out of twenty bad ones, three men

could be returned to society instead of to the underworld the effort would be justified even from an economic point of view.

In all this, the diagnostician comes into action. The law cannot take into consideration defects other than insanity as a defense in criminal cases. Yet in the prisons a certain expectation of insanity obtains. It would be unfair to impute this to the effect of regime. Incipient mental disease as well as tuberculosis and other ailments are common with certain classes, which require only time for development. It may easily be that

prison life retards rather than accelerates the process. The time for cure, so far as concerns the penitentiary, is, of course, the earliest opportunity after commitment. Other defects touching the sight or hearing and extending to cover any organic trouble are well worth correcting. The work has its moral or missionary side as well as the economic. It is good sense, good ethics and good business to do away with causes that lead directly or indirectly to disintegration of character and to actions detrimental to society.

How Wisconsin Laws Affect the Physician in Relation to Public Health Administration

BY L. W. BRIDGMAN,
STATE BOARD OF HEALTH

In the course of time legislatures, stimulated by health authorities and the needs of the expanding program for the public welfare, have incorporated into Wisconsin's legal code many statutes which both extend and limit the powers and prerogatives of physicians. Most of these have a direct bearing upon the enforcement of laws for the betterment of the public health.

Many physicians are familiar with numerous important laws which concern them in their practice, while others are hazy in their understanding of certain provisions. It is with this in mind that the following brief summary of laws affecting physicians in their relation to the enforcement of the health code has been prepared at the request of this journal. No effort has been made to quote verbatim abstracts. The citations given will prompt ready reference to the full phraseology of the statutes themselves.

Reporting of Cases. A physician is required to report within 24 hours, in writing, all cases of communicable disease to the health officer. (Section 143.04). The reportable diseases are classified as follows:

Quarantinable Diseases. Cerebrospinal meningitis (epidemic), cholera (Asiatic), diphtheria, infantile paralysis, plague, scarlet fever, smallpox, typhus fever, yellow fever.

Placardable Diseases. Chickenpox, influenza, leprosy, measles, German measles, typhoid fever, whooping cough.

Reportable Only. Erysipelas, lethargic encephalitis, mumps, ophthalmia neonatorum, pneumonia, trachoma, tuberculosis.

Posting of List. The official list of communicable diseases is required to be posted in every physician's

office (also in every hospital). (Section 143.04). The list is furnished on cardboard by the state board of health.

Diagnosis. In diagnosing communicable diseases physicians shall use ordinary skill and bacteriological examination if the latter is of value in determining the true condition. (Section 143.04).

Penalty. For violation of any of the above laws, except that concerning posting of diseases, physicians are liable to fines ranging from \$5 to \$100, or imprisonment, or both fine and imprisonment; and for a second offense are subject to suspension of their license to practice for one year. (Section 143.04).

Quarantine. Physicians are among the few individuals specified by law as being permitted to enter premises quarantined for communicable disease. (Section 143.05).

Tuberculosis. Every physician is required to report within one week cases of tuberculosis in his care or under his observation. The report shall contain the name and address, age, sex, and occupation.

The physician shall notify the health officer within 24 hours of the vacation of any place by death from tuberculosis or by removal of a consumptive. (Section 143.06).

Veneral Disease. A physician shall report to the state board of health on blanks furnished by the board all cases of venereal disease which he attends. He shall fully inform such patients of the danger of transmitting the disease and shall advise against marriage while the person has the disease in a communicable form.

(The attorney general holds that a physician who reports to the state board of health the name of a person afflicted with a venereal disease on account of such person failing to continue treatments until the disease is no longer communicable will be protected from liability, if the facts justify his action).

Arsphenamine and neo-arsphenamine are furnished free to doctors for those who cannot afford to pay for it in order to further the cause of the public health.

Physicians having patients unable to pay for treatment for venereal disease may assign such individuals for treatment to state clinics.

When such a patient refuses treatment the physician shall notify the state board of health, giving particulars, to enable the board to act to have the person committed for treatment.

When a physician has reported a case of venereal disease to the state board of health, all questions regarding the presence of the disease and the date from which the treatment was neglected shall not be regarded as privileged information when the patient or physician is called upon to testify to the facts before any court of record.

Physicians shall be furnished free of charge with the results of examinations for the diagnosis of gonorrhoea made by any state laboratory, and of examinations of blood or secretions for the diagnosis of syphilis from the state psychiatric institute. (Section 143.07).

Infant Blindness. The state board of health is required to supply silver nitrate solution free to every physician (and midwife) for the prevention of ophthalmia neonatorum, which solution shall be administered according to the instructions on the containers.

When ophthalmia neonatorum appears in any newborn babe not attended by a physician or midwife and the case is reported as required by law, to the health officer, a competent physician shall be employed by the municipality to examine and treat the case as directed in the instructions accompanying the solution. The penalty for violation of any part of this law is a fine up to \$100. (Section 146.01).

State Narcotic Law. This law affects the rights and practice of physicians to a wide extent, and its provisions should be thoroughly understood by every practitioner. The law was re-enacted by the 1923 legislature to make its provisions more stringent and in accord with the federal act in most respects. A digest of its provisions was published in the Wisconsin Medical Journal for August, 1923, to which attention is directed. (Section 146.02).

Contagious Diseases, suspected cases, etc. Any person afflicted with smallpox, diphtheria, scarlet fever, or other dangerous disease who wilfully enters any public place or public conveyance, or wilfully subjects others to contracting the disease, and any person who knowingly and wilfully aids in or permits the taking of such a patient into any public place or conveyance, exposing others to the infection, shall be liable to arrest and punishment as provided in Section 4608d. All suspicious cases must be reported and regarded as positive until a correct diagnosis can be made.

Report of Congenital Deformities. Physicians shall report to the state board of health within 24 hours of the birth of any child with a deformity or physical defect, such report to be separate from and in addition to the birth certificate, and shall explain fully the nature of the defect. They may also make suggestions and recommendations as to the care, treatment or correction of such deformities or defects. (Section 69.29).

State Laboratory of Hygiene. Physicians shall be

furnished free of charge with findings of laboratory analysis of specimens sent for determining diagnosis of diseases. (Section 36.225).

Registration of Births. Physicians shall file within five days certificates of births attended by them. Such reports are to be made to the local registrar of the district in which the birth occurs. All particulars called for shall be given in the space provided. All bills or charges for professional services rendered in connection with confinements shall be unlawful if the birth certificate, properly filled out, is not filed as provided in Section 69.26.

Registration of Deaths. The physician must sign certificates of deaths occurring in his practice, giving the cause of death and other data called for by the certificate. Such certificates are to be filed by the undertaker with the local registrar. A physician is prohibited, under penalty, from making a charge for filling out the certificate of the cause of death. (Section 69.36).

Information. The law (Section 146.15) requires that physicians of mining, manufacturing and other companies, state officials, officers and agents of a company incorporated by or transacting business under the laws of this state shall upon request furnish, so far as practicable, to the state board of health any information touching the public health; and for refusal shall forfeit ten dollars.

WHAT'S IN A NAME?

The New York State Department of Health recently requested the public to report any complaints of irregular medical practice. A tabulation was made of the different classes with the names assumed. We republish the list as indicating the wide realm of quackery and the serio-comic titles assumed by some:

- | | |
|--------------------------------|--------------------------|
| "Aero-therapy" | "Leonic" healers |
| "Astral" healers | Medical gymnast |
| "Autothermy" | Mechano-therapy |
| Beautifier Establishments | "Naturolgist" |
| "Biodynamo-chromatic therapy" | "Natureopath" |
| "Blood" specialists | "Neuro-therapy" |
| Bone setters | "Naprapath" |
| Cancer "cures" | Optical Institutes |
| "Chromo-therapy" | Obesity curers |
| "Christos" (blood washers) | "Psycho-analyst" |
| "Chromopathy" | Patent Medicine Men |
| Couéists | "Photo-therapy" |
| Diet-therapy | Physical culture |
| Diathermy | "Physio-therapy" |
| "Drugless healers" | "Psycho-therapy" |
| Electro-therapy | "Practo-therapy" |
| Electrotonic methods | "Quartz-therapy" |
| Electric light diagnosis | "Spondylo-therapy" |
| "Electryonic" methods | "Sani-practor" |
| "Electro-homeopathy" | "Spectrocrome" |
| "Electronapro-therapy" | Special food faddists |
| "Geo-therapy" | Special drug faddists |
| Hypnotist | "Spectro-therapy" |
| Hydro-therapy | "Tropho-therapy" |
| Herbalist | "Telathermy" |
| Helio-therapy | Vacuum and serum "cures" |
| "Irido-therapy" diagnosticians | "Vitopath" |
| Kneipp cure | "Zodiac-therapy" |
| | "Zonet-therapy" |

Weekly Consultation Service of W. A. T. A. Aids the Oak Sanatorium of Waukesha and Washington Counties

By MRS. RUTH MacMILLAN
Wisconsin Anti-Tuberculosis Association

"How d' do, Jenny! Well Mrs. Johnson, how are you today? Miss Smith you're looking fine. Believe you'll be ready for meals down stairs pretty soon."

It is consultation service day at the Oak sanatorium, Pewaukee, and Dr. Oscar Lotz, part-time physician of the Wisconsin Anti-Tuberculosis Association, has stepped out upon the deep, screened-in porch that accommodates three of the institution's 28 patients. With a smile and a word for all, Dr. Lotz makes his round every Wednesday afternoon. Into his sympathetic ear are poured all the problems and tribulations of the week—not only by the patients, but also by the attending physicians, Dr. L. W. Egloff, and the sanatorium superintendent, Miss Dora M. Bresnahan.

The Oak is the only sanatorium in the state that has made arrangements with the Wisconsin Anti-Tuberculosis Association for weekly consultation service, most of the other county institutions having bi-weekly or even monthly service only. Every Wednesday afternoon Dr. Lotz drives out to the sanatorium from Milwaukee, visiting each patient, deliberating with Dr. Egloff, prescribing changes in treatment as necessity may dictate, carefully examining all the records and giving thorough chest examinations to such persons as he deems need them. This service, instituted by the Anti-Tuberculosis Association several years ago as an experiment to meet a very real if unconscious need for it, has proved a boon to the sanatoria, has smoothed over many a rough spot in the necessarily institutional and monotonous life of patients, doctors and nurses. The broad perspective of the outsider who has at once a keen understanding of the peculiar difficulties of the tuberculous and is alive to the problems of the patients and the institution, is invaluable to a sanatorium where the horizon is naturally much narrower and as a result small difficulties loom large.

Situated two miles from the town of Pewaukee, high upon a hill that affords a fine panorama of the surrounding country, with a splendid view of the silver waters of Pewaukee Lake, lies the



THE OAK SANATORIUM

sanatorium. The building, originally a private home owned by a Milwaukee family one of whose members had tuberculosis, is one of the most attractive of all the county sanatoria. The house, for the sanatorium looks far more like a private dwelling than an institution, stands in the midst of a grove of oaks which almost hide it in the summer and from which it can hardly be distinguished when the trees are bare and brown. Only a small space in the immediate vicinity of the building has been cleared to permit a free circulation of air. The interior of the sanatorium is as charming as the exterior, especially the dining room, which has a large fireplace and windows at either end. There are a few private rooms, but the patients are quartered chiefly in groups of three or four, on large, screened porches that have full-length adjustable windows on two sides. The dressing rooms and lockers for patients are in the corridors.

While no farm is conducted in connection with the sanatorium, a few chickens are raised, and two horses that graze about the fields in the summer are kept for use when the roads are closed to motor vehicles in the winter and for ploughing in the large garden that supplies the sanatorium with vegetables.

The Oak was opened six years ago by Waukesha County to care for its tuberculous. Last year Washington County bought an interest in the institution which is now used for patients from both counties. There is seldom a vacancy at the institution which has a bed capacity of 28. A recent appropriation for a nurses' home was made

by the county boards, and when this building is erected next autumn the bed capacity of the institution will be about 40, the quarters now occupied by the nurses to be turned into porches and rooms for patients.

In addition to a staff of five nurses, the sanatorium has its own laboratory and laboratory technician, a young man who has taken "the cure" himself, and is still keeping up the sanatorium regime. He is a licensed druggist and has been especially trained for his work. The convenience of having the laboratory work of the institution done on the premises is not inconsiderable.

The Oak is primarily an institution for adults, although child patients are accepted occasionally. Children are not desired because the sanatorium has no facilities for caring for them apart from the adult patients, and separate quarters are considered essential where a number of children are to be cared for in such an institution. If they are kept in close contact with the older patients, it is felt, the youngsters are frequently spoiled and become unmanageable, or else they disturb the other patients.

Heliotherapy, the sun and air bath treatment, is to be one of the features of the "cure" at the Oak this summer, and a small canvas hut with high walls but no ceiling, large enough to accommodate several cots is being constructed for this purpose. While heliotherapy has been used much and successfully with child patients at Muirdale sanatorium, the Milwaukee County institution, and with children elsewhere, it has not been used to any appreciable extent among adults of any of the Wisconsin institutions. The belief in its efficacy is steadily growing among medical men.

Any legal resident of Waukesha or Washington counties is eligible for care at the Oak, and patients who are unable to pay for their care are admitted free of charge by making arrangements with the county judge. Patients from other counties are accepted when there are vacancies in the institution, but preference is given to applicants from the counties that own the sanatorium.

DECLINE DUE TO HEALTH STANDARDS

The building up of general vital resistance based on good hygienic habits and high standards of living is responsible for the decline of the tuberculosis death rate rather than an acquired immunity obtained by latent infection in early life. This is the theory offered in an

editorial, *The Incidence of Tuberculosis*, in the February issue of *The Nation's Health*.

"It has commonly been assumed and generally taught on the basis of results reported from European cities that latent infection with tuberculosis as indicated by the tuberculosis reaction was wellnigh universal among adults," says the editorial, adding that more recent work, however, has indicated that this assumption is clearly unjustified as far at least as American communities are concerned. "Data for the incidence of positive skin reactions to tuberculosis for St. Louis, New York and Philadelphia all indicate that at the age of 15 less than half of our American children are infected as compared with four-fifths for French, Swiss, and Italian cities and over nine-tenths for Vienna."

"In New York, where 1,500 children were examined at Bellevue hospital, it was found that less than 15 per cent showed positive reactions at the age of 5, and less than 40 per cent at the age of 15. This would tend to contradict the theory that the relatively chronic nature of tuberculosis in civilized communities is chiefly due to acquired immunity following latent attacks of tuberculosis in childhood," says the editorial. As long as one assumed that 80 or 90 per cent of the adult population was thus protected it was reasonable to assume that such acquired immunity was a vital factor in protecting the civilized races against the rapid and deadly spread of tuberculosis which occurred among Indian and African troops in France. If, however, less than half of our children are nowadays in the class of positive reactors it is hard to see how the relative mildness of the disease can be explained on any such ground."

FAKE DOCTORS

At least 25,000 bogus physicians and surgeons are "practicing medicine" in the United States, according to some investigators of medical diploma mills. The figure is startling. Here's a major evil going along for years without the public suspecting it. Fortunately, it's a scandal that can be cleaned up quickly and thoroughly—if the proper authorities so desire.

No matter how thoroughly it may be suppressed, however, this evil will grow up again like a weed unless the various associations of legitimate physicians and surgeons act more vigilantly.

It amazes one to find the medical profession boneycombed with untrained quacks. But do we stop to realize that every other line of human activity is similarly boneycombed with incompetents? Yes, and just as harmful to the community at large as the phoney M. D. to his unfortunate victims. Lawyers, judges, architects, newspapermen, financiers, managers, craftsmen—there are plenty of these who are thoroughly trained yet totally unfitted for their work by reason of warped ethics, natural incompetence, stupidity and dishonesty. In life, real ability stands out in the sea of incompetence like the proverbial blackberry in a bowl of milk.

Anyone with a sense of decency is appalled by the thought of an ignorant, untrained quack "treating" sick people who need expert help. The fact, that thousands of such quacks are at work, is a revelation of the frightful things many men resort to in the mad scramble for money. There seems to be no limit to degradation, where money is at stake. Civilization largely is a failure in its financial reactions.

—Madison State Journal, Dec. 14, 1923.

FAKE M.D. UNCOVERED

Evidence has been secured by the State Society with the assistance of members of a man practicing medicine as a licensed physician. The "Doctor" issued prescriptions upon a blank on which the abbreviation "M.D." was printed after his name. The open violation of the law will be called to the attention of the District Attorney in the county in which the illegal practice is being carried on.

THE JOURNAL BOOK SHELF

- Operative Surgery.** By Warren Stone Bickham. New York City, 1924. Six volumes with 6378 illustrations, many in colors. W. B. Saunders Co., Philadelphia.
- Scientific Rejuvenation Without Operation.** By H. H. Rubin, M.D., Director of the American Institute of Radiocrinology, Medical Science Publishing Co., New York City.
- Dosage and Solutions.** A text book for nurses and a reference book for physicians and nurses. By C. E. Garnsey, Instructor Washington Sanitarium and Hospital Training School for Nurses, Washington, D. C. W. B. Saunders Co., Philadelphia and London.
- The Medical Clinics of North America.** St. Louis Number, Vol. 7, No. 5. Philadelphia and London: W. B. Saunders Co.
- Hernia, Its Anatomy, Etiology, Symptoms, Diagnosis, Differential Diagnosis, Prognosis and Operative Treatment.** By L. F. Watson, M.D., Associate in Surgery, Rush Medical College, Chicago. C. V. Mosby, St. Louis, 1924. 660 pages.
- International Clinics.** Published by J. B. Lippincott of Philadelphia and London. Vol. I, Thirty-fourth series, 1924.
- Psychoanalysis and Gland Personalities.** By Andre Tridon, New York. Brentano's, 1923.
- Essays of a Biologist.** By Julian Huxley, New York. Alfred A. Knopf, 1923.
- Nervous and Mental Re-Education.** By Shepherd I. Franz, New York. The Macmillan Co., 1923.
- Outline of Psychology.** By William McDougall, New York, Price, \$2.50. Charles Scribner's Sons, 1923.
- Nosography in Modern Medicine.** By Knut Faber, M.D. With illustrations. Price, \$3.75. Paul B. Hoeber, Inc., New York, 1923.
- Post Mortem.** By C. MacLaurin. Price, \$2.50. George H. Doran Co., New York, 1923.
- A Plea for Monogamy.** By Wilfred Lay, Ph.D., New York. Bonl, 1923.
- Histology and Histopathology of the Nervous System.** By Paul Schroeder. With illustrations. Translated by Baldwin Lucke, M.D. J. B. Lippincott Co., 1923.
- The Re-Creating of the Individual.** By Beatrice M. Hinkle, M.D., New York. With illustrations. Harcourt, Brace & Co., 1923.
- Abberrations of Life.** By James Clark McKerrow, M.D., New York. Price, \$2.00. Longmans, Green & Co., 1923.
- Pruritus of the Perineum.** By Joseph F. Montague, M.D., New York. With illustrations. Price, \$3.50. Paul B. Hoeber, Inc., 1923.
- Psychotherapy.** By James J. Walsh, M.D., New York. With illustrations. D. Appleton & Co., 1923.
- Dreads and Besetting Fears.** By Tom A. Williams, Boston. Little, Brown & Co., 1923.
- Our Fear Complexes.** By Edward H. Williams and Ernest B. Hoag, Indianapolis. Price, \$1.25. The Bobbs-Merrill Co., 1923.
- A Laugh a Day Keeps the Doctor Away.** By Irvin S. Cobb, New York. Price, \$2.50. George H. Doran Co., 1923.
- Our Unconscious Mind and How to Use It.** By Frederick Pierce, New York. Price, \$3.00. E. P. Dutton Co., 1923.
- The Unconscious.** By I. Levine, New York. Price, \$2.50. The Macmillan Co., 1923.
- Phantom.** By Gerhart Hauptmann, New York. A novel. B. W. Huebsch, Inc., 1923.
- Lectures on Endocrinology.** By Walter Timme, M.D. With illustrations. Paul B. Hoeber, Inc., New York, 1923. Price, \$1.50.
- Adolescent Interests.** By F. I. Davenport, Ph.D., New York. Archives of Psychology. Columbia University. Price, \$1.25.
- The Foundations of Personality.** By Abraham Myerson, M.D., Boston. Little, Brown & Co., 1923.
- The Gall-Bladder. Its Past, Present and Future. The Mütter Lecture of the College of Physicians.** By J. E. Sweet. Int. Clinics, Vol. 1, Series 34.
- Progress in Chemotherapy and The Treatment of Syphilis.** Editor, George W. Roizers, Ph.D., published by The Dermatological Research Laboratories—Philadelphia Quarterly.
- The American Journal of Physical Therapy.** The Professional Press, Inc., Chicago—Monthly.
- Obstetrics for Nurses.** By Joseph B. De Lee. Seventh Edition, 620 pages. Illustrated. W. B. Saunders Company, Philadelphia, London.
- "The Health of a Neighborhood."** John C. Gebhart. Director of Social Welfare, New York Association for Improving Condition of the Poor. A Social Study of the Mulberry District of New York City. Published and distributed by N. Y. A.I.C.P. Price, 25 cents.
- The Biology of the Internal Secretion.** By Francis X. Dercum, M.D., Ph.D., Professor of Nervous and Mental Diseases in the Jefferson Medical College, Member of the American Philosophical Society, Member of the Academy of Natural Sciences of Philadelphia. W. B. Saunders Co., 1924.
- The Antidiabetic Functions of the Pancreas and the Successful Isolation of the Antidiabetic Hormone—Insulin.** By J. J. R. Macleod and F. G. Banting. St. Louis: C. V. Mosby & Co., 1924, 69 pages, cloth. Price \$1.50.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

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The National Health Series. Edited by the National Health Council. 20 Vol., 18 mo. Flexible Fabeikoid. Average number of pages 70. Price per set \$6.00 net, per volume 30 cents net. Funk & Wagnalls Co., Publishers, New York and London.

This series, edited by the National Health Council, and written by many of the foremost health authorities in our country is designated by the publishers to furnish authentic information to the laity on a number of subjects essential to hygiene and health.

The volumes which have so far been received and which are briefly mentioned below seem to offer in concise and non-technical language much of value in the various lines covered by the titles.

Cancer: Nature, Diagnosis and Cure. By Francis Carter Wood, M.D., Director Institute for Cancer Research, Columbia University.

Cancer is a vital topic to everyone and Dr. Wood's interesting presentation of its occurrence, nature, diagnosis and cure is most timely. His conclusions emphasize the facts that "only early cancer is curable; the disease is universal, so every one is liable; the diagnosis is difficult—therefore consult a good physician as soon as symptoms are noticed; and that surgery is still the most certain method of cure."

The Baby's Health. By Richard A. Balt, M.D., Gr. P. H., Director, Medical Service, American Child Health Association is especially valuable to the young mother. Dr. Balt tells in simple, easily understood language the necessity of various procedures for the care of the baby and what to do to maintain good health for the child.

Man and the Microbe. By Charles Edward A. Winslow of the Yale School for Medicine.

This volume tells us how communicable diseases are controlled, how they are caused, when known and how they spread. Intelligent reading of this book will be of great aid to anyone in protecting himself and others from the various infections.

Personal Hygiene. By Allan J. McLaughlin, M.D., Surgeon United States Public Health Service.

In a highly entertaining and instructive manner Dr. McLaughlin presents "The Rules for Right Living" in seven chapters whose titles are self explanatory: The Meaning of Health; How to Acquire Health; Applying Personal Hygiene; Care of Special Organs; What to Avoid; Who Can Help Get Health; and Lengthening the Span of Life.

Community Health. By Donald B. Armstrong, M.D., Sc.D., Executive Officer, National Health Council.

From Surgeon General Cumming's Introduction to this volume, the reviewer quotes as follows: "Every citizen owes it to himself and to his community to take an interest in the health of the place in which he lives." Dr. Armstrong's wide experience in health work has evidently fitted him to express the principles of community health and the reasons every citizen should have for being interested therein. W. A. M.

Handbook of Modern Treatment and Medical Formulary. Compiled by W. B. Campbell, M.D. Formerly Resident Physician at the Methodist Episcopal Hospital of Philadelphia. Seventh Revised and Enlarged Edition by John C. Rommel, M.D., and C. E.

Hoffman, Ph.M. 693 pages. Cloth. Price \$5.00. F. A. Davis Company, Philadelphia.

Seldom does one find such a complete and valuable manual of modern treatment for practically every medical condition seen by the general practitioner.

While, in many instances, the number of formulas for a given condition may seem large, they are well selected and, in the majority of cases, ones that have the sanction of the medical fraternity at large.

In addition to the formulas which are written in both metric and avoirdupois systems a great number of useful remedial measures are suggested. W. A. M.

We express thanks to Dr. D. Bryson Delavan of New York for a copy of his admirable Sketch of the Life and Work of George Morewood Lefferts, A. M., M.D., M.S., 1846—1920.

Written by the life long friend and close associate of Dr. Lefferts, it possesses a peculiar charm and an intimate knowledge of the life and character of one of the great laryngologists.

The description of the teaching methods developed by Dr. Lefferts and the excellent halftone illustrations of the Lefferts' Clinic at the College of Physicians and Surgeons are most interesting.

Also we extend thanks to the University of Wisconsin for the receipt of its beautiful volume on the proposed National Institute for Research in Colloid Chemistry. The University is to be congratulated upon such a book telling of the "Need for such an Institute; the plan for its operation; an argument for its location" together with a number of exquisite views of the campus.

Social Control of the Feeble Minded. A study of Social Programs and Attitudes in Relation to the Problems of Mental Deficiency. Stanley P. Davies, Ph.D., Ex. Sec. Committee on Mental Hygiene, New York State Charities Aid Association. Published by The National Committee for Mental Hygiene Inc., 370 Seventh Ave., New York City. Price \$1.25.

This is one of the rarely valuable contributions of an intelligent student of social conditions to one of the perplexing problems of the medical profession, the borderline mental case, and is a work which should be read by every medical man dealing with the general public. It is an interesting resume of the various attitudes of the profession and the public toward the care of the mentally defective and the various trials of programs of the civic authorities, institutional heads and social and public school workers to meet the varied problems which attend the incorporation into a modern complex civilized (?) life of a large group of those whose mentality is such as to make impossible, unaided, the adjustments necessary for such incorporation. It stresses particularly the care of the very large group of border-line cases who, under guidance and training, have some possibility of rehabilitation and relates the experiences of the New York State Colony experiments both for male and female cases and brings out frankly just where mistakes have been made and where great gains have been accomplished. This work is analyzed from the standpoint of the individual "come back," the safe incorporation back into the community, the civic economic standpoint in the training given toward complete or partial self support

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and thus the release of funds for institutionalizing of the low grade case impossible of rehabilitation, and the larger economic problems of training eventually a group of workers on the farms, and domestics in the homes to meet the crying need in these fields. It points out the fallacy and economic impossibility of institutionalizing a large number of border-line cases, capable of special training and rehabilitation and leaving a still greater number loose in the community in unfavorable circumstances to become social menaces and emphasizes the fact that environment either bad or good is the dominating influence in determining the potentials of criminality or social harmonizing of these unfortunates.

S. J. M.

The Anatomy of the Nervous System (2nd Ed.)

By Stephen Walter Ranson, M.D., Ph.D., Professor Anatomy Northwestern University Medical School. W. B. Saunders Company, Philadelphia and London.

The author takes up the various phases of the subject from a practical standpoint. His style and method presentation makes the complex system clear and understandable. The first four chapters deal with the origin, development and histological elements of the subject. Chapters V to VII give a very excellent account of the spinal cord from a developmental, anatomical and clinical point of view. Chapters VIII to XI and XIII to XVII inclusive deal with the structure of the brain stem, cerebellum and cerebrum. This part is not essentially different from other anatomical accounts. Chapter XII, entitled, "The Cranial Nerves and Their Nuclei," consists of an able presentation of the American conception of cranial nerves and their functional components as outlined by C. Judson Herrick. This conception of the nerve components is so rational and practical that an acquaintance with it is recommended. The last three are the crowning chapters of the book. The chapters on "The Great Afferent Systems" and "The Efferent Paths and Reflex Arcs" present in the clearest and most concrete manner the origin, course, neurone connections and destination of each pathway. These pathways are classified into functional groups based on the American conception of nerve components. In his last chapter, "The Sympathetic Nervous System," the author directs his discussion along anatomical and functional lines. Functionally he divides it into general and special visceral motor and general and special visceral sensory components. For the general visceral motor (autonomic) he emphasizes the anatomical subdivision into cranio-sacral autonomic and thoraco-lumbar autonomic in place of the older unscientific division into sympathetic and para sympathetic.

The outstanding features of this text are the clear descriptions of the spinal cord, conduction pathways and the sympathetic system; the concrete illustrations which make the text practical; and the presentation of newly discovered conduction pathways and their importance in neurological diagnosis

T. H. B.

Applied Pathology in Diseases of the Nose, Throat, and Ear. By Joseph C. Beck, M.D., F.A.C.S., Associate Professor of Laryngology, Rhinology and Otolaryngology, University of Illinois, College of Medicine. Cloth, 280 pages, 268 original illustrations including four color plates: C. V. Mosby, St. Louis, 1923.

Dr. Beck states in his foreword that he "has long felt the need for such a work as I herein present." How much more must the average practitioner in this field require such help. Pathology of nose and throat conditions is far from being thoroughly understood by most men doing very extensive practice in these specialties. Yet, as Dr. Beck well states, "the fundamental object in the analysis and management of a case is a definite knowledge of the underlying pathological change present." A search through general texts on Pathology often throws little light on every day conditions met in practice, and many of the standard text books on diseases of the nose, throat, and ear refer but briefly to pathological changes.

Dr. Beck states, "It is my desire to limit this work almost exclusively to my own personal experiences and therefore it should not be considered as a text book. In the study of pathological changes, I have considered each subject as shown grossly in the patient during examination and further corroborated by laboratory data as x-ray, et cetera, or during operative procedure or treatment; next the gross specimen after removal, if such be the case, with subsequent microscopical examination. Post-mortem specimens have also been used."

The book is divided into two parts, viz., Acute Diseases and Chronic Diseases.

Part I, "Acute Diseases," is subdivided into seven chapters covering acute diseases of the Nose, Pharynx, Mesopharynx, Larynx, Trachea (including Bronchi and Oesophagus), Ear, and acute complications of Mastoiditis.

Part II, "Chronic Diseases," is subdivided into five chapters covering chronic diseases of the Nose, Nasopharynx and Oropharynx, Larynx, Trachea (including Bronchi and Oesophagus), and, finally, the Ear (including the Mastoid).

The Table of Contents is well worked out, as well as a complete Index Table of Illustrations, the latter comprising some two hundred and sixty-eight. The drawings and photographs are excellent, as well as the greater part of the micro-photographs.

One of the most interesting phases of the work is the discussion of the "application" of the pathologic data acquired in the management of the diseased condition in question. The paragraphs on Treatment which conclude the discussion of most of the diseases are a very valuable feature of the book. These, together with an occasional case-history, convert the whole book into very interesting reading totally unlike the average "dry" pathologic text.

F. A. D.

New and Nonofficial Remedies, 1924, containing descriptions of articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1923. Cloth. Price, postpaid, \$1.50. Pp. 422+XXXIX. Chicago: American Medical Association, 1924.

Every physician is continually bombarded with literature, scientific and otherwise, concerning the newer remedies. He has neither the time nor the opportunity to investigate all even of the more promising preparations, and obviously he cannot try them upon his patients

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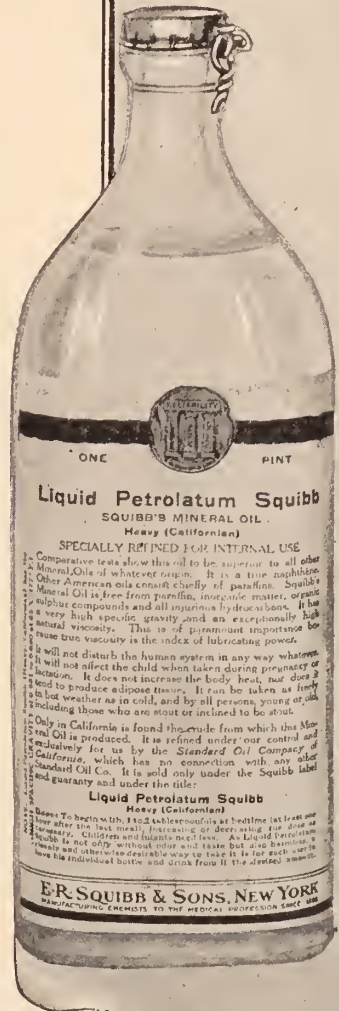
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without investigation. He must know the composition of the article, must know that the claims under which it is marketed are true; in other words, he must have some critical statement of the actions, uses and dosage as well as of the chemical and physical nature of the product.

This need of the physician is met in *New and Non-official Remedies*, which is the official publication through which the Council on Pharmacy and Chemistry annually presents to the American medical profession disinterested, critical, information about the proprietary preparations which the Council deems worthy of recognition. In addition to the description of these proprietary preparations, the book treats those nonofficial remedies which, in the opinion of the Council, are worthy of consideration.

As the book is designed for ready reference, each preparation is classified, and each classification is preceded by a general and critical discussion of that group. These articles are written by those who may speak with authority on the separate subjects, and are a compilation of the best accepted opinions of today. Thus there is a general article on lactic acid-producing organisms in which the newly accepted *Bacillus acidophilus* preparations are discussed in connection with other accepted sour or fermented milk preparations. The animal organ preparations, the biologic preparations, the arsenic preparations, and so on, are discussed in such a manner as to make the accepted facts concerning each group readily available.

A glance at the preface of the new volume will show that the book has been extensively revised. In fact, each new edition of *New and Nonofficial Remedies* is essentially a newly written book, fully indexed.

Physicians who wish to know why a given proprietary is not described in *New and Nonofficial Remedies* will find the References to Proprietary and Unofficial Articles not found in N. N. R. of much value. In this chapter (in the back of the book), there are references to published articles dealing with preparations which have not been accepted.

New and Nonofficial Remedies is a book that a physician who prescribes drugs cannot afford to be without. The book contains information about medicinal products which cannot be found in any other publication.

The book will be sent postpaid by the American Medical Association, 535 North Dearborn Street, Chicago, on receipt of one dollar and fifty cents.

OH DOCTOR, DOCTOR!

By H. A. J.

We have just been reading a book by Mr. King C. Gillette, called the "People's Corporation." Yes, you are right, it is the razor king. With a mind as keen as the (advertised) keenness of one of his own razor blades, he exposes the inefficiencies of the present economic system, and then details a startling remedy, which proves to be

nothing but our old friend Socialism, dignified by the robes of a corporation. The book is well written, but it is just as much of a failure as most attempts of men are who try to succeed in something outside their chosen field. We think Mr. Gillette makes better razors than books.

This calls to mind that other melancholy example of a man leaving the job for which he is most fitted, and going into a field where he is wasting his talents. We refer to the sad literary eclipse of Sir Arthur Conan Doyle. Nowadays when Sir Arthur sits down to a table and hears mysterious knockings on the walls he reaches for his genealogical records, and interprets the messages from the spirit world. Mr. Sherlock Holmes would have known better. He would have known (by a simple process of deductive reasoning), that those knockings were made by the swarthy Afghan with the scar on his little finger, who was searching for the lost ruby. And handing the old service revolver to Watson, he would have remarked to that trusty medical man: "I think it will be a clear night. Come with me and I may be able to show you something interesting." Alas, he will never have an opportunity of saying such a thing again, nor will he ever again reach for the hypodermic and the two per cent solution bottle. "The Memoirs of Sherlock Holmes" end with his death, and if it were not for his triumphant resurrection in "The Return of Sherlock Holmes," we might think that Sir Arthur was trying to commune with the spirits in order to discover whether Holmes had turned his great talents to the solution of various celestial mysteries, but we are afraid not.

And this suggests a very positive and useful office for our friends the chiropractors. Like Mr. Gillette and Sir Arthur, let them turn aside from their bone crushing and devote their lives to the production of good detective stories. The world would probably totter along just as well without the assistance of these man-handlers, and it would be considerably bettered by the addition of some really good detective stories. We do not think that the chiropractors would make a failure of their new occupation in the way that Mr. Gillette and Sir Arthur have made failures of theirs, for the genius which could invent such a system as chiropractic could certainly manufacture and detect other deceptions.

The Wisconsin Medical Journal

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Number 2

ORIGINAL ARTICLES

THE TREATMENT OF CHRONIC GONORRHOEA IN THE FEMALE*

BY H. W. SHUTTER, M.D.

MILWAUKEE

Many of our failures in the treatment of chronic gonorrhoea come from our continued disregard of the anatomy and pathology of the region involved. It has been known for many years that the infection though general in the acute stages eventually localizes itself in three gland structures of the lower genito-urinary tract: the cervix, the glands of Bartholin and the para-urethral glands of Skene. In the adult, gonorrhoeal urethritis, vulvitis and vaginitis are conditions which exist only during the early stages of the infection. By the time that active local treatment, beyond the extent of douches and baths, is advisable the process is already localized in the structures previously mentioned.

Examination of the cervix shows it to be involved in over three-quarters of cases of chronic gonorrhoea. Once infection is present the simple tubular glands of the endo-cervix offer an excellent habitat for the gonococci and hold them relatively safe from destruction by medicated douches or local applications. The incidence of infection in the glands of Bartholin is estimated at from 15 to 35 per cent of chronically infected cases. In the presence of infection in the cervix or para-urethral glands one is justified in considering a Bartholin duct infected if its orifice is congested or the gland enlarged, hard or tender. The history of burning or painful urination at any time after the onset of an infection casts suspicion on the para-urethral glands. The end stage of infection in the urethra is an involvement of these two minute structures. Stripping the urethra downward with the index finger in the vagina will reveal a small drop of pus if the glands are involved and the patient has not recently voided. If the ducts are not high in the meatus two small drops of pus will appear, corresponding

with each duct orifice. The introduction of a wire hair-pin probe at these points will reveal the ducts running one-quarter to one-half inch upward in the floor of the urethra. These structures are involved in from twenty-five to fifty per cent of chronic gonorrhoea.

Any logical method of treatment in female gonorrhoea necessitates the removal of infection from the three structures mentioned. Since we are dealing with complicated glandular tissues this can be accomplished best by their removal or destruction with the cautery. In the case of the cervix this is usually done without anaesthesia by the introduction of a small nasal cantery tip as far upward as the internal os. The current is connected and the tip drawn outward to the external os. If the vaginal mucosa is not touched by the heated instrument almost no pain is felt. One or two linear strips are made and the operation is repeated a second, third or fourth time at intervals of from ten days to two weeks. Erosions and Nabothian cysts respond rapidly to cautery application. All patients are advised to keep the cervical secretions removed by daily douches. Moderate haemorrhage following cauterization is not infrequent and patients should be reassured against alarm.

Novocaine infiltration of the surrounding tissues is necessary before cautery destruction of the para-urethral glands. A two per cent solution is used. The ducts are exposed with hair-pin probes. The fine cautery tip is then placed on the floor of the urethra and the ducts laid open throughout their entire length.

While cautery destruction of the Bartholin glands and ducts is not difficult under local anaesthesia the area remains painful and tender for some time after. Excision of the entire structure with the knife is simple, more effective and the post-operative course more satisfactory. This step in treatment is advocated for cases where adequate treatment of the cervix and urethra has failed to obtain results. Occasionally the removal of one gland only is necessary.

The above routine has been more satisfactory for us than any other measures previously employed. Chronic cases have yielded continued negative smears after from three to ten weeks.

*Presented at the 77th Annual Meeting, State Medical Society of Wisconsin, Milwaukee, October 3-5, 1923.

Where results have been poor, careful re-examination of the three possible foci has usually revealed the bacterial source. On several occasions infection of Bartholin's glands has been overlooked. A number of patients did not respond because of failure to locate or destroy completely one or both of the para-urethral glands. Failure to cauterize thoroughly in the region of the internal os frequently delays the cure of cervical infections.

In sensitive women, in badly infected cases or where laparotomy for tubal infection is necessary, it is frequently wise to destroy all infected points thoroughly under anaesthesia. In several cases it has been impossible to obtain negative cervical smears because of the co-existence of chronic tubal infection. Because of the danger of extension treatment has seemed inadvisable for two or three days before and after menstruation. Though tubal involvement has recurred two or three times after cervical cauterization, in no case did it necessitate abdominal section. All patients are advised to remain quiet during the menstrual periods following cauterization. A faecal fistula followed too extensive cervical cauterization in a case where the tubes and upper fundus had recently been removed. The opening closed spontaneously in ten days. Cervical stenosis sufficient to cause menstrual difficulty has not occurred. Three patients are known to have become pregnant subsequent to our treatment. One abortion followed cauterization unwittingly done in the presence of early pregnancy.

In private practice with the individual well under control we do not consider a result satisfactory until cervical and urethral secretions contain neither suspicious organisms nor pus. Particularly is this true in urethral infections. This requires observation for several months, usually impossible in hospitals where delinquents and prostitutes are held for treatment. All patients at the Milwaukee County Hospital are referred to the dispensary for further observation.

CONCLUSIONS

The cautery treatment of chronic gonorrhoea in the female recommends itself:

1. Because it removes the pathology, namely, the infected areas.
2. It provides a means of curing the irresponsibles who will not co-operate in their own treatment.

3. Results are obtained usually in from one-quarter to two-thirds the time required by less certain methods.

4. Responsible patients can be assured of results with reasonable certainty.

5. No untoward results have followed the treatment.

PRESIDENT: The paper of Dr. Shutter is now open for discussion.

DR. R. S. CROX, Milwaukee: Mr. President and Members of the State Society. I have enjoyed Dr. Shutter's paper very much, and concur with him in most of his remarks.

I wish to emphasize the importance of destroying the Skene's glands by cautery, and the removal in most cases of the Bartholin glands when infected.

My remarks for the most part will be confined to the treatment of the cervix. Recently, Dr. Cummings of Ann Arbor, reported 72 cases of endocervicitis, mostly of gonorrhoeal nature, treated by cautery. All of these cases with the exception of 4 were greatly benefited, practically relieved. In other words, 68 women were clinically cured. The treatment of these cases was directed toward the relief of an infection of the endocervium and cervix plus frequently a laceration of that organ.

Our technique differs a little from that outlined by Dr. Shutter. It consists in doing a cauterization with a cold cautery applied to the anterior and posterior lips of the cervix well up inside of the endocervium. The burning is rather superficial passes usually into the submucosa and each linear cauterization is a quarter to one-half of an inch long. In two or three weeks the patient reports back, and the picture will be considerably changed. The infection will be conspicuously improved, the eversion considerably diminished. At this time the cauterization is repeated but the applications are made a little more towards the external os. This procedure is repeated until the cervix is restored to practically its normal appearance.

It is important in some of these women that cautery not be used. Of course I am referring only to the cases of chronic endocervicitis, complicated by marked oedema and hypertrophy. Here we have substituted for the cautery an operation which has been described by Sturmdorf of New York. It is a cone-shaped excision of the endocervium. The initial incision is made around and just outside of the diseased area of the cervix, and carried up to the internal os. Now if the excision were left as such, what would happen would probably be an atresia, or at least a very marked stenosis of the cervical canal. Accordingly a cuff of mucous membrane is freed from the portio vaginalis and carried up into the cervix to the region of the internal os where it is held in place by two catgut sutures, one through the anterior and the other through the posterior lip. In that way the cervix, when healed, is restored to practically its normal appearance, will not bring on sterility or cause dystocia during any future pregnancies.

URETERAL OBSTRUCTION. A COMMON SURGICAL PROBLEM FREQUENTLY OVERLOOKED*

BY W. E. BANNEN, M.D., F.A.C.S.

LA CROSSE

I offer no apology for presenting this subject to this group of surgeons primarily because each one of you can recall numerous cases which have come under your observation that have been submitted to repeated surgical attack on adjacent organs, some as many as three and four laparotomies, with the pathology in the ureter, a diagnostic error that is at times perhaps justifiable but all too avoidable if the ureter were not ignored in the diagnostic consideration.

A careful summary of twenty cases of ureteral obstruction shows that even when surgical removal of an appendix, a Jackson's membrane, a Lane's kink, or when pelvic operations were performed without relief of the ureteral obstruction, these symptoms persisting were generally attributed to post-operative adhesions and surgical procedures were recommended, and often carried out without relief of the primary trouble. This review of cases brings up a subject of sufficiently frequent occurrence to warrant our consideration, and if I can leave one single phrase, one single thought that will stick and cause surgeons to investigate the surgical abdomen with more consideration of possible urological pathology, I shall feel that this paper has not been prepared in vain.

I am not going to present a long array of case reports, neither shall I attempt to fight the battle for ureteral strictures but will submit some pyeloureterograms for your consideration showing ureteral obstructions and the method used for correction before resorting to ureterotomy.

The dilation of the ureter with the removal of the obstruction by cystoscopic methods has been performed so frequently that today there is no doubt as to its possibility. It is a surgical procedure that should be applied in all cases before resort is had to the radical open operation. An exception would be, of course, a calculus too large to pass or escape from the ureter and I am certain that we should endorse the statement of Bransford Lewis that stones that look too large to pass do pass and that the apparently impossible does happen, and that the surgeon having discovered the

stones in the ureter should not be too impetuous in his conclusion that a stone is too large to pass or to be removed by conservative measures. Ureteral obstruction from stone or stricture or other causes, unless accompanied by acute infection, is not an emergency case as a rule, and will allow the application of conservative treatment with much less danger to the patient than the undergoing of radical surgical treatment.

The ureter is an extra-peritoneal organ with walls that are capable of great dilation—in the abdominal portion it is loosely connected to its surrounding structure, but at the brim of the pelvis it is in close apposition with bone and has a normal constricted area. The most common place of obstruction is just below this pelvic brim. The second most common place of obstruction is the ureteral pelvic fold where the renal fascia passes over the ureter, thus easily causing a dilatation of the pelvis of the kidney. The third common area of obstruction is at the uretero-vesicle juncture, although obstruction may occur at any point along the course of the ureter.

Ureteral obstructions are attributed to various etiological factors, and may be either extra-ureteral or intra-ureteral. The most common of the extra-ureteral obstructions are adhesions, scars, or bands, resulting either from surrounding inflammatory processes as appendicitis, pelvic infection, colon infection or following surgical treatment. To this must be added the tumors, pelvic or abdominal, and the physiological tumors of pregnancy. Intra-ureteral obstructions are due to the impaction of calculi, blood clots, pus plugs, stricture of the ureter congenital or acquired, and to irregularities, such as kinks and angulations.

Ureteral obstruction by any of these causes creates a dilated ureter, the degree of dilation depending upon whether a partial or complete obstruction and upon the length of time that the obstruction persists, with resulting hydronephrosis and if an infection takes place, a pyoureterosis and pyonephrosis. These anatomical and etiological considerations of the ureter and its close relation to organs of frequent surgical lesion explain our common failure to diagnose and treat cases of ureteral obstruction, or where pathology of the ureter and adjacent organs coexists, the ureter is often overlooked in the diagnosis. The appendix of course is the organ most commonly involved. Sixteen of the cases reviewed have had a previous appendectomy without relief of the symptoms, and

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from the history of the patient, no inquiry or investigation was instituted to exclude urological pathology. Seven of these had impacted stones in the right ureter. These are the cases that with recurrence of symptoms often have secondary laparotomy for adhesions without relief.

The next group of organs to be attacked are the pelvic organs of the female, where the close relation of the uterus to the ovarian tube and the common occurrence of obstruction of the ureter at this point, three or four centimeters below the pelvic brim, gives reasonable cause for diagnostic error. Other organs that are in line for surgical censure while the ureter is the real offender, are the rectum, colon, ileum, seminal vesicles, and I have even found a diagnosis of ectopic pregnancy made where a stricture of the ureter was causing the pain.



Fig. 1—Dr. F. Calculus in ureter, right. Calculus S. Kidney. Had appendectomy without relief.

I cannot pass on to the diagnosis of ureteral obstruction without a few statements regarding stricture of the ureter. Bottomley and Eisendrath consider the congenital type of stricture much more common than we were taught to believe, Eisendrath having reported about seventy cases due to persistent foetal valves and other anomalies. The acquired type as described by Hunner, Kelly, Furniss and Braasch due to pyogenic infection, tubercular processes, calculi, syphilis, trauma, or neoplasms are the most common. Kelley first called attention to the pyogenic origin of strictures while Hunner emphasized the role of focal



Fig. 11—Mr. A. Ureter obstruction, calculus. Operated for appendicitis.

infection, with hemogenetic incidents, the urinary infection being secondary to the ureteral infection from the blood stream. The pathology of ureteral stricture is similar to that of stricture elsewhere, that is, connective tissue, proliferation and contraction.

Clinical histories of cases of ureteral obstruction carefully taken always give data pointing to pathology of the urinary tract. There may not be a definite or clinical picture complete, due to



Fig. 111—Miss S. Ureter obstruction. R. ureter and pelvis. Has had three laparotomies.

the many factors involved, but somewhere in the history, if it be carefully taken, the surgeon who is alert will detect the note that should cause him to postpone exploratory surgery until urological pathology has been excluded. A good history may not make the diagnosis, but it almost always gives data that suggests investigation of the urinary tract and this leads to a correct diagnosis. It is uncomplimentary but nevertheless the truth that the majority of the cases of ureteral obstruction when finally diagnosed have had laparotomies without relief of the symptoms. In Hunner's series of fifty cases, 34 had been operated on, and a careful analysis could only possibly justify seven of these operations as necessary, and 27 as unnecessary. One patient had spent eighteen years in hospitals with eight major operations without



Fig. 14—Mrs. M. Dilated ureter and pelvis due to stricture. Has had appendix removed without relief.

relief for a stricture of the ureter which was relieved and cured by a thorough dilatation of the stricture.

SYMPTOMATOLOGY

1. The most characteristic symptom to be elicited in the history of ureteral obstruction is, of course, pain, due to distention, either constant or intermittent, and may be or may not be localized to the urinary tract, with radiation downward to the bladder or thigh, or frequently upward toward the kidney and often accompanied by gastric symptoms, chills and fever, the latter where the obstruction is accompanied by pyelitis.

2. Intermittent attacks of pain referred to the



Fig. 15—Ureter obstruction, pelvis dilated. Had appendix removed. Advised cholecystectomy.

back, along the course of the ureter, perhaps referred to the opposite side, to the sacro-iliac, epigastric, and often down the back of the thigh. This accounts for the frequent diagnosis of gall stones, appendicitis, sacro-iliac diseases and ulcer, either gastric or duodenal.

3. The attacks are often associated with menstrual activity, and lead to a diagnosis of pelvic pathology.

4. Urinary disturbance, steady or intermittent, as disuria, micturia and urgency, at times incontinence, with or without pyuria.



Fig. 16—Ureter obstruction, stricture. Also dilated pelvis, right. Has had laparectomies without relief.

EXAMINATION

If the data obtained in the history suggests a urological possibility, the urological examination consists in, first, a physical examination of the kidney and ureter to ascertain the size and tenderness of the kidney, tenderness of the ureter, and if in the female, a palpation of the lower three inches of the ureter, which may be tender and palpable. The kidney is often tender, palpable and mobile, with a tender area along the distended ureter, and the patient often complains of pain elicited by the examination similar to the pain that has caused the disability.

The cystoscope may reveal a cause at the ureter orifice as a papilloma, or impacted calculus, or a distended pouting ureter orifice or an ulcerated area about the ureter.



Fig. VII—Diverticulum of bladder with two No. 5 x-ray catheters coiled in diverticulum.

Ureteral catheterization may show a definite obstruction. This may be due to spasm of the ureter, to actual obstruction, or to a fold or angulation, but a rapid flow of urine through the catheter will quickly announce an hydronephrosis.

The radiogram with an opaque catheter will generally show the presence of a calculus and with the catheter in the ureter differentiates ureteral calculi from phleboliths.

The most valuable diagnostic procedure now is a uretero-pyelogram, which gives information not obtainable by any other means, demonstrating the position, the size of the kidney pelvis, the size and course of the ureter, and definite diagnosis of ureteral obstruction. These may be obtained in



Fig. VIII—Flexible dilator with olive tips and filiforms, devised to dilate stricture of ureter.

the hands of a fairly competent cystoscopist, without danger or pain to the patient if pressure is not used and not large quantities of fluid allowed to flow into the kidney pelvis.

The last and absolutely positive test is passing a waxed bulb catheter or olive tipped dilator. The stricture may not be observed in passing the catheter in, but on withdrawing, the hang or tug is a definite proof of stricture or obstruction.

TREATMENT

The treatment of stricture consists in dilatation of the ureter by graduated bougies, catheters and dilators, and, of course, search for and removal of foci of infection, the removal of the calculi by disengaging them, dilatation of the ureter, injections of sterile oil such as liquid alboline and glycerine, sterile olive oil, or if a small catheter



Fig. IX—Ureteral catheters. Sterilized in autoclave. Folded in towel.

is used, mineral oil may be used with good results. These, plus expectant treatment, and we are usually rewarded by having the stone pass after one or two dilatations. Often these stones may be dislodged or grasped by ureteral forceps and actually withdrawn in the grasp of the forceps. Very few cases of impacted ureteral calculi need ureterotomy for removal.

SUMMARY

I have tried in this paper to call attention to a few salient points in the diagnosis of ureteral obstruction, have commented on the failure in diagnosis of ureteral obstruction, and enumerated the reasons for such failure, and wish to emphasize the importance of a careful history to point out the necessity for an investigation of the urinary tract.

(1) Ureteral obstruction is frequently not recognized until after other operative procedure; (2) a careful history is often required to point out the necessity for urological investigation; (3) physical examination with cystoscopic examination, ureter catheterization and radiograms of kidney and ureter, followed by uretero-pyelograms are all that is necessary to make a diagnosis; the waxed bulb catheter or olive tipped catheter or dilators are also of prime importance in making a diagnosis; (4) the expense of time and effort spent on these cases is well rewarded in the saving of life and much unnecessary suffering on the part of the patient.

The following radiographs are shown to demonstrate some of the points that have been mentioned in this paper.

MILLIKEN APPOINTS MANAGER.

John T. Milliken & Company, Saint Louis, Missouri, announces the appointment of E. F. Gillis as General Sales Manager with headquarters in the main office. Mr. Gillis comes from the firing line, having formerly been in charge of the Western Sales Division at Denver, Colorado.

The appointment of Mr. Gillis is the first of numerous changes contemplated during 1924 and made necessary in keeping with the policy of expansion that the Milliken house has decided upon. A class of seventeen new salesmen, everyone a thoroughly qualified pharmaceutical man, has just completed an intensive sales training course at the plant, and started traveling in various territories.

John T. Milliken & Company is one of the largest manufacturers of pharmaceutical products in the country and under the management and personal direction of its President, John D. Gillis, has achieved a remarkable success in recent years.

OBSTRUCTING OR "FILIFORM" STRICTURE OF THE MALE URETHRA*

BY JAMES C. SARGENT, M.D.
MILWAUKEE

In spite of the thousand and one recently popularized formulas for the prevention of venery and venereal disease, gonorrhoea still is and promises well to continue to be the most common disease of any consequence affecting young men. So long as the majority of men afflicted with gonorrhoea continue to be treated by the penurious charlatan, the unscrupulous druggist and the careless and indifferent physician more or less stricture formation will continue to be a frequent sequel to such infection.

The very prevalence of urethral stricture with its chain of misery, invalidism, and poverty seems ample reason for a critical analysis of the points of importance in its diagnosis and treatment. This paper is to be limited to a consideration only of the obstructing type of urethral stricture commonly spoken of as "filiform stricture." The wider strictures not yet contracted to a degree sufficient to cause definite urinary obstruction will not be considered.

As a background for this paper a careful review has been made of the records of one hundred and eighty-six cases of obstructing stricture of the urethra attended in private work, at the Emergency and County hospitals and at the County and Marquette Medical School dispensaries. Realizing full well the terrible monotony that commonly results from the presentation of case records and statistics, this series of cases has been carefully tabulated and averaged to permit the presentation of this subject with as little reference to either numbers or cases as is consistent.

All patients were men.

Each patient admitted one or more attacks of gonorrhoea.

The average age was 42, ranging from 19 to 63 years.

The average duration of symptoms of urinary obstruction was 6 years, ranging from 1 month to 28 years.

The symptoms experienced by the patients in this series were tabulated and show the following proportions: Eighty-five per cent complained of frequent and painful urination. Small difficult urinary stream was complained of by eighty per

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cent, of whom seven per cent suffered complete retention when first seen. General debility with loss of weight and strength was a symptom noted in sixty-five per cent of these patients. Twelve per cent had experienced chills and fever. Another twelve per cent had or had had periurethral abscesses. Many admitted some discharge when questioned but in no case was this a complaining symptom.

The usual patient with obstructing stricture of the urethra complains of frequent and painful urination, a small difficult urinary stream and some general debility with loss of weight and strength. His condition is commonly very evident to himself and he presents himself with his own diagnosis of stricture. A fair number of patients with obstructing stricture, however, are much more concerned over some symptom other than the usual difficult, frequent and painful urinary stream. Though this common chain of stricture symptoms is found to be an universal experience when each patient is closely quizzed, it is a remarkable fact that no small number of patients fail to even mention them while relating the course of their disease. This is sometimes due to the relatively greater annoyance caused by other symptoms; often to a seeming tolerance some people have to minor urinary symptoms.

There is a small but very important group of stricture cases who, though they may have had to void once or twice during the night for months, have considered themselves in good health until stricken with a sudden and unexplained chill followed by a sharp fever. This is, of course, explained by the development of an ascending kidney infection secondary to a stricture cystitis. When stricture is recognized as the fundamental cause of the condition and the urethral obstruction properly removed, these attacks of chills and fever promptly cease.

A case comes to mind in whom several blood smears had been stained and carefully studied for the malarial parasite because this man had been having recurrent chills followed by fever at rather regular short intervals. The curiosity of an interne, aroused by finding pus in the urine, finally drew attention to the real cause of the illness. Dilatation, of course, promptly relieved the patient. The point is that this man in the face of his illness had not considered his voiding twice at night for many months of sufficient importance to even warrant mention to his physician. That

his urinary stream was smaller than in former years had never dawned on him!

There is another small but even more important group of cases, many of whom remain blissfully ignorant of the presence of a urethral stricture until, for no apparent reason, they develop an acute painful swelling in the scrotum or perineum. This swelling in the course of several days undergoes softening and an abscess develops which, unless opened surgically, ruptures and discharges both pus and urine. Once having occurred there is a strong tendency for the recurrence of such abscesses. They are, of course, the result of a spontaneous break in the ulcerated and thinned urethral wall just back of the stricture with the escape of urine into the peri-urethral tissues and abscess formation.

There are a number of things that will produce one or more abscesses in the scrotum or perineum but there is only one thing that will produce an abscess in this region which, after being opened, drains not only pus but urine. That is obstructing stricture of the urethra. Once such a condition is recognized and the urethral canal reopened these abscesses promptly cease recurring and the older urinary sinuses usually close.

In this series of 186 cases there were 23 patients who at the time were suffering either an acute abscess or were complaining of an unhealed urinary sinus. Every one of these patients to a man had passed through the hands of at least one (and in many cases a number) of doctors before the presence of urethral stricture was suspected. This in spite of the fact that the only one pathognomonic symptom of filiform stricture of the urethra is the occurrence of an abscess in the perineum or scrotum followed by a urinary sinus.

There comes to mind the case of a man who had given both time and money to three physicians of good repute. He complained only that when urinating about two-thirds of the urine came through a sinus in the perineum. This had remained for eight months following the occurrence of an unexplained abscess. The last physician was evidently a good pupil of Beck, for when the patient first came to me he had ceased complaining of the urinary leakage but was driven to distraction by a severe cystitis due to the presence of an ounce of Bismuth Paste in the bladder. This had been injected into the sinus and, of course, oozed on into the bladder. Mention is made of this experience merely to illustrate the

utter futility of doing anything other than re-opening a strictured urethra when a urinary sinus has developed the result of it.

This question of extravasation of urine, the result of urethral stricture must not be passed without mention of the fact that such extravasation may become very extensive. Not all urinary extravasations wall off into a localized abscess. This is especially true when the stricture is so tight that all or most of the voided urine passes through the broken urethral wall into the surrounding tissues. In such case, unless the urinary stream is promptly reestablished and those areas extensively infiltrated with urine freely drained, the patient is extremely liable to die.

The general principles governing the treatment of urethral stricture are very clear. Surgical drainage is indicated when extravasation has occurred. Urotropine with some acidulating drug is indicated when there is much urinary infection. General hygiene and tonics are indicated when there is much loss of weight and strength. In all events, however, it is of prime importance that the lumen of the urinary canal be reestablished.

Just what is the best way to accomplish this is not so definite. External urethrotomy and internal urethrotomy are both time-honored procedures. It would seem almost temerity to suggest that they have outlived their usefulness as a routine procedure in the treatment of obstructing urethral stricture. The fact remains, however, that in the larger urological clinics fewer and fewer stricture patients are being treated in this way. Several factors are operating to bring this change about. With the old fashioned unguided sound it was always dangerous and often impossible to get through a tightened stricture of the back urethra. This was undoubtedly the one great indication for the external type of urethrotomy. With the more modern filiform-guided sound it is both easy and safe to pass a sound through even the tightest posterior stricture. Strictures of the back urethra can be dilated easily and rapidly and when dilated have little tendency to recontract except after very long periods. These two factors are tending rapidly to unpopularize external urethrotomy.

There is still a very definite field for the use of the internal urethrotome. There are undoubtedly occasional anterior strictures which are too tough-walled to permit complete dilatation with sounds. In such instances, it seems better that the stricture band be cut from within and a new

urethra be allowed to reform around an indwelling catheter. Even in these cases, however, it must not be thought that the urethrotomy is the patient's cure. Urethrotomy does not destroy scar tissue. On the contrary, it tends to increase it. Sounds must be passed just as large, as often and for as long with urethrotomy as without it. This is well attested to by the 64 cases in this series who had been previously operated. In none was anything like a sufficient course of post-operative soundings given. In all the obstruction promptly recurred.

In this series of stricture cases there were but five patients in whom it was found impossible to pass a sound-guiding filiform. In each instance a suprapubic cystotomy was done and a filiform passed from the bladder out. With this as a guide a second filiform was drawn from the meatus through the canal to the bladder and increasing sized sounds were then passed until the stricture had been completely dilated. The urethrotome was used in two of these cases.

There was a second group of five cases in this series in whom sounds could be passed but because of very heavy stricture bands in the anterior urethra, complete dilatation could not be accomplished. An internal urethrotomy was done in each of these cases.

Only these ten cases were treated surgically. The remaining 176 patients were treated only by gradual and prolonged dilatations with sounds. Needless to mention a large number of these men slipped from sight after the relief of their first few soundings. Of those remaining complete dilatation was accomplished and is still being maintained by soundings at intervals as frequently as seems necessary.

From a study of these cases there seem four points worthy of special emphasis.

1. Recurrent attacks of chills and fever with pus in the urine sometimes dominates the symptom-picture of urethral stricture.

2. Single or recurring abscess in the perineum or scrotum followed by persistent urinary sinus is a pathognomonic symptom-complex of urethral stricture.

3. The great, great majority of cases of filiform urethral stricture can and should be treated only by gradual dilatation with sounds.

4. And last but by no means least, once a stricture, always a stricture. Whether operated or not each stricture patient must on occasion forever

do penance for the folly of his youth by a pilgrimage to the shrine of Kollmann, Guyon or Janet.

COMMON INFECTIONS OF THE LOWER URINARY TRACT*

BY EDWARD F. MIELKE, M.D.
APPLETON

The purpose of my paper tonight is to call your attention to the frequency of infections of the posterior urethra, prostate, trigone and seminal vesicles and their close association with one another. I wish to point out that they may arise from other causes than the gonococcus and that usually secondary mixed infection perpetuates these diseases. In their chronic state they have a complex and obstinate symptomatology, a guarded and gloomy prognosis due to the refractory nature of the affliction and are prone to recurrence on suspension of treatment. The morbidity of these diseases is well known to you all, and it has been said "That Clap begins but God only knows when and where it will end."

The gonococcus is not only the most common direct cause of these infections, but it lowers the resistance of these organs so that infection from other causes are more easily acquired. It is well to remember that prostatitis and vesiculitis are non-gonorrheal in about 10 per cent of cases and may arise from the following causes:

1. Instrumentation.
2. Injections of strong fluids.
3. Masturbation.
4. Abstinence.
5. Coitus interruptus.
6. All irregular forms of coitus, including the use of condoms.
7. Colon bacillus infection from colon.
8. Streptococcus due to infectious diseases.
9. Staphylococcus from some distant focus.
10. Constipation.
11. Chronic pelvic congestion from any cause.
12. Infection from kidney, ureter and bladder.
13. Mumps.
14. Strictures.
15. Kidney Stone.
16. Proctitis.
17. Trauma.

The posterior urethra is probably the least understood of all the urinary and sexual organs, yet it is one of the most important, connected as it is with both many minute and large openings. Its drainage facilities are very poor. The posterior

urethra should receive much more attention than either the penile or membranous urethra.

Practically every case of anterior urethritis is associated with some degree of involvement of the posterior urethra at some time during its course, even though subjective symptoms are absent and the second glass is clear. This is also true regardless of the type of treatment used.

It does not seem logical that a mere sphincter muscle can limit the onslaught of an infection that advances in the deep submucous structure of the urethra. The entire canal is lined by mucus membrane and hence will probably be open to infection. In those cases which do not clinically manifest posterior involvement there is probably so mild an infection that the symptoms are not complained of and cure is spontaneous.

The diagnostic significance of the several glass test is uncertain in many cases. It is usually considered that a clear second glass indicates anterior involvement. This is true but still there may be all of the itises above the anterior urethra. One must not forget that the second glass is cloudy because the trigone is suppurating and the posterior urethra forms so much between urination that it oozes back into the bladder and contaminates the entire bladder content. The trigone, which is easily infected, clears very easily and soon the posterior urethra clears to some extent. At this time the second glass becomes clear and the first glass contains washings of the *entire* urethra. Here, then, we might have some posterior involvement with a clear second glass. Further, the prostate may be reeking with pus even with both glasses clear, and if it be massaged the patient may have a typical recurrence the next day. Therefore a shred-free urine and a lack of discharge are not enough to indicate cure and too much dependence must not be placed upon the two-glass test.

The most frequent condition encountered in the practice of urology is chronic prostatitis. It is present in practically every case of manifest posterior urethritis, in many cases without posterior signs or symptoms and in nearly all cases of long standing urethral inflammation. It may manifest itself years after the acute symptoms have subsided and cause reinfection.

It is extremely important that involvement of the prostate be early recognized and properly treated as serious consequences often follow. The prostate has a two-fold function; namely, the

formation of an external secretion which renders the spermatozoa motile and of an internal secretion which excites the testes to action. It is a sex gland because it atrophies after castration. Persistent chronic inflammation of the gland impairs its function and may cause impotence and sterility.

The association of prostatitis with prostaticism in older men is most interesting. Nearly all men above the age of fifty have some degree of enlargement of the prostate. About 35 per cent will show pus in the urine after massage and about 60 per cent give some symptoms of urinary disturbance. About 10 per cent of the surgical benign enlargements are due to an inflammatory process, possibly a continuation of an earlier process in life. Sometimes the history of the case will bear this out, although a distinct group of persons who have definite prostatitis after middle life present no history nor evidence of an inflammatory process in early life. This condition is sometimes described as a prostatic bar or a small hard prostate. Calculi are frequently deposited in this type of gland. Frequently a marked cystitis and at times a pyelonephritis, possibly an old inflammatory process in the epididymitis and testicle, are associated with this condition. The bladder is usually inflamed, trabeculated, and thick walled, and may contain diverticula. These patients complain of pain in perineum, symptoms of cystitis, frequency, difficulty, hematuria, and incomplete emptying of bladder. Assuming that it has been determined that the symptoms can be attributed to the prostate, how are they to be interpreted? The first three—frequency, difficulty, and pain—do not necessarily indicate a surgical condition. They are usually present in a case which is considered surgical, but should they *alone* form a basis of indication for operation, a guarded prognosis as to ultimate result is advisable. These symptoms alone, in the absence of obstruction or residual urine, are usually manifestations of infection and are frequently seen in the so-called prostatitis or inflammatory type of gland, which without obstruction or residual urine, is usually not relieved by prostatectomy. Inability to empty the bladder, and persisting residual urine are the outstanding and important indications for prostatectomy. However, the absence of residual urine does not constitute a contra indication to operation, if the gland is enlarged and there are other subjective symptoms. Given residual urine of any amount as a result of

prostatic obstruction, and the surgical indication is clear. Given frequency, difficulty, pain, but slight enlargement of the gland, without residual urine, the advisability of surgery may be questionable. Conservative treatment consisting of massage, dilatation, irrigation, instillation, diet, hydrotherapy, etc., will permanently relieve many of these cases or at least tide them over for a long period of time. Recognition and proper treatment of all cases of prostatitis in early life would no doubt cut down the percentage of this type of case seen in later life.

There is a very close analogy of structure between the posterior urethra of the male and the urethra of the female, and hence we often see cases somewhat similar to that just described in the female and often make a diagnosis of trigonitis. It is doubtful whether trigonitis as a single disease can be substantiated. As in the case of cystitis we must look for the cause such as pyelonephritis, calculi, solitary ulcer of Hunner, gross bladder pathology, diverticula, pelvic pathology, hemorrhoids, etc. A common cause of this condition in the female is an infiltrating process involving the internal sphincter of the bladder due to involvement of the intra-sphincteric glands and producing contractures of the vesical neck with its resulting "Prostaticism." High dilatation and instillations are indicated, and if not successful it may be necessary to cut through the contracture and thereby relieve the spasm of the sphincter.

Among the other common infections of the lower urinary tract is seminal vesiculitis. These two small organs, sometimes called the pus tubes of the male, have not received enough consideration from the standpoint of general medical diagnosis. About 25 per cent of cases which show involvement of the posterior urethra will have involvement of the vesicles notwithstanding the fact that their outlet into the urethra is protected by a sphincter. It should also be remembered that just as pure gonorrhoeal cystitis is a condition that probably never exists, so, too, are most, if not all, infections of the seminal vesicles and prostate mixed. Prostatitis is more readily acquired but more easily cured. Accordingly after the prostatic, urethral and trigonal pathology have been cured the vesicular condition may alone remain, though it is prone to keep up pathology in the prostate or urethra either constantly or intermittently.

The medical profession has been warned for

years that no physical examination is complete unless the finger, or better still, an anoscope, has been inserted into the rectum for fear of missing a carcinoma. To this I should want to add proper investigation of the prostate and seminal vesicles. These diseases are prevalent and should be investigated in every patient where we are looking for a focus of infection. They are just as important as a focus of infection in the male as the uterine cervix is in the female. Multiple foci of infection are common and to remove tonsils and teeth and leave diseased tissue in the lower urinary and generative tract is obviously useless. Nielson, Professor of Medicine, St. Louis University School of Medicine, writing in the *Medical Clinics of North America* of this month, lays special emphasis on the prostate as a focus of infection. He believes that practically every man who has had a Neisserian infection did not escape some involvement of his prostate and that the prostate is perhaps the most frequent cause of focal infection in men. He examined two hundred men who came to him for general diagnosis and found that in eighty-five with infected prostates only fifty-eight had a history of Neisserian infection dating from two to forty years previously. His results of treatment were especially good in the lumbagoes, lumbar and sacral spondylitis, sacro-iliac disease and sciatica.

A vast array of conditions with a symptom complex too little understood, as acute and chronic synovitis and arthritis, of an infectious or toxic nature, so-called articular or even muscular rheumatism, rheumatoid arthritis, arthritis deformans, gout, hypertrophic arthritis, chronic bladder disturbance, recurrent epididymitis, impotency, renal and cardiac complications, digestive disturbances, iritis, and an array of mental and nervous manifestations almost incredible of belief, may arise from vesiculitis or prostatitis. Obviously, it is not inferred that in the above mentioned diseases, the vesicles or prostate are always concerned, but it is probable that the medical profession in general would be amazed if not embarrassed to learn how frequently in certain infective, cryptogenic, nervous and arthritic conditions, the depot of infection will be found to be a chronic seminal vesiculitis or prostatitis. It is highly probable that in many cases diagnosed as "gonorrhoeal rheumatism" the gonococcus has ceased to play a role and that the offending bacterium can be traced to mixed infection located in the vesicles or prostate. The

cases reported by Fuller, a pioneer in this work, treated by vesiculotomy read like fairy tales.

To rule out disease in these organs it is not enough to examine the secretion after a half-hearted massage. The first massage may only break up multiple small pockets of pus and it may take the second or third massage or even the use of the Kollman dilator and instillation of agno 3 to make pus appear at the meatus or in the urine. The most practical and accurate method of examining the secretion from the seminal vesicles, ampullae of the vasa, and the prostate consists in carefully emptying these organs by rectal massage and collecting not only the secretion which appears at the meatus but also that which goes back in the bladder, by having the patient void or, when necessary, by catheterizing the bladder. Acetic acid is added to dissolve the mucus, and microscopic examination is made of the centrifuged sediment. Massage is the greatest curative measure in all these conditions if properly and persistently carried out and will together with instillations, dilatations and irrigations cure about 90 per cent of cases.

Dilatation should first be gradual and finally by a Kollman dilator about once in ten days. This aids in emptying the ducts from within as does massage from without.

Massage is carried out twice a week usually on a partially filled bladder. It sometimes produces an epididymitis but this is no doubt due to it being carried out at an improper time. The degree of pressure depends upon the tolerance of the patient and the stage of inflammation. It should not last longer than two or three minutes.

Massage is best carried out with the patient bending over the back of a chair with knees straight and toes turned in. The right index finger is held straight with the arm and the body produces pressure on the elbow. The left hand is used to make pressure over the lower abdomen. Avoid a sliding motion as much as possible but use deep, firm pressure. The finger should roll from the outer edge of each lobe to the urethra and then be drawn down several times over the posterior urethra, so as to express secretions from the sinus pocularis and terminations of the ejaculatory ducts. The vesicles are stripped in much the same way though it may be necessary to use a massage iron to properly empty them.

The effect of massage is to empty pus pockets into the urethra, thus relieving the engorged blood

vessels and lymphatics of the stroma, to stimulate the reparative process by inducing a more liberal supply of fresh blood and lymph to the organs. Removal of plugs allows instillations and irrigations to have their effect in all pockets and to reach any organism. Just as irrigation is the first step after acute symptoms of posterior urethritis subside, so should irrigation or instillation follow each massage.

The general symptoms and signs of these three infections are most varied, especially in their chronic forms.

Neurotic symptoms are exceedingly common and are present in 90 per cent of cases. The degree varies from a mild state of apprehension to one of suicidal intention.

A feeling of pain, burning, dullness, pressure, dragging, or itching is present in nearly all cases and may be referred to either the testicle, cord, perineum, anus, groin or lower abdomen.

Bladder symptoms are common due to the close anatomical proximity of these organs and invariably a mild trigonitis will be found present. There may be irritability of the vesical neck, supra pubic pressure and pain, tenesmus, frequency, dysuria and all symptoms associated with cystitis.

Urethral discharge is usually present and when the seminal vesicles are principally involved resists the usual forms of treatment. Retention is not seen except in those cases of marked prostatic or stricture complications.

Abdominal symptoms may closely simulate chronic appendicitis, ureteral colic, ureteritis, stone or gastric trouble. In the acute complicated cases one may have septic phlebitis, pelvic cellulitis, peritonitis or pyaemia. Dull, persistent supra pubic pain, constant pain in the lower lateral quadrants of the abdomen with a chronic urethral discharge, should always direct us to investigate the vesicles, prostate and posterior urethra.

Rheumatic symptoms are common. Infection may be harbored for years in these organs periodically expressing septic material into the general circulation. Cases of backache, sciatica, lumbago, etc., should especially be investigated. Frequently these cases are sent to a urologist as a last resort after having had other sites of pus collections eradicated. Frequently no symptoms or signs are present referable to these organs and the case is labeled as "Neurasthenia."

Sexual symptoms are also common especially in the vesicle cases presenting every phase of de-

range, from mild inaptitude to complete impotency. Atonic organs are noted most commonly in cases of ejaculatory praecox with mild degree of imperfect erection, whereas cases of complete impotency invariably present hard, fibrous sclerotic organs. Most cases of impotency under forty-five are due to diseases of the seminal vesicles. Other common symptoms are priapism, frequent or painful erections, painful ejaculation and lack of pleasurable sensation. Spermatorrhoea, hemo-spermia and pyo spermia may be present. Frequent erections without sexual stimulus or frequent nocturnal emissions may be present.

It is important to remember these organs in your differential diagnosis in all abdominal conditions especially in relation to the bladder, ureter and kidney. Even the direct diagnosis may be difficult. Palpation is not enough. The vesicles or prostate may be full of pus and feel normal. They may be sensitive and still normal. Their size and configuration varies like the facial features of persons. The consistency, such as nodules, depressions, irregularities and soft areas, is important. Microscopic examination of the secretions is the most practical and conclusive way for the final diagnosis.

The statement of Guyon that one should have his eyes either in his finger tips or sound has passed. The "seeing eye" has replaced the "feeling touch" in urology just as it has in general surgery. As an example, we no longer marvel at the surgeon who blindly removes a prostate in a few seconds disregarding anatomical and pathological irregularities, associated pathology or hemorrhage.

Chronic symptoms or signs arising from these organs, oftentimes mean local and isolated pathology and it is important to recognize the source, be it in the urethra, prostate or vesicle. How ridiculous it would be to assume that a chronic urethral discharge due to infected Littre's glands or stricture can be cured by treatment of the vesicles or vasotomy when these organs were not involved.

Vasotomy, cystoscopy, radiograms of the vesicles, catheterization of the ejaculatory ducts, etc., all have their place in diagnosis. Endoscopic examination is especially important not only for diagnosis but also for treatment. The following conditions are not uncommon: patches of erosion, cysts of the posterior urethra or verumontanum, diverticula, papilloma, polyps, verumontanitis, hyperplasties or nodular formations of the mucosa

of the urethra or vesical orifice. Polyps of the posterior urethra corresponding to the common caruncle of the female are probably much more frequent than we think when we consider the close similarity of their anatomical structures. If we examine visually, we will diagnose more accurately and will treat more locally.

It has been said that the treatment of gonorrhoea is usually stopped where it should begin, and this is no doubt true. Confusion instead of simplicity has arisen in this field of therapy to a marked extent. The one dominant idea seems to be speed and more speed and here is where we most often get into trouble. It usually takes months and months of varied treatment to cure the chronic cases and this should be impressed upon the patient from the beginning. Real cure rests in the patient's tissues, especially where the process has invaded the mucosa, and the constant wild scramble for new antiseptics seems futile. Pus infections of the body have for years been treated by antiseptics, drainage, or excision, and as a matter of fact, if these plans of treatment advised years ago were used properly and for a sufficient length of time we would have almost 100 per cent of complete cures.

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Mayo Clinic Volume, 1916.

I have quoted freely from the above articles. This paper was read before the Outagamie County Medical Society, March 13th, 1924.

BENIGN HYPERTROPHY OF THE PROSTATE GLAND

BY IRA R. SISK, M.D.

MADISON

The cases reported in this paper illustrate that group of patients with benign hypertrophy of the prostate gland in whom the condition develops so insidiously that they do not realize they are really ill until the disease has progressed to a very advanced stage.

It is not my intention to discuss the relative value of the suprapubic and perineal routes for prostatectomy, nor to advance a lengthy argument in favor of either the one or the two-stage method. Each type of operation has numerous supporters who are successful with the methods which they have chosen. As I have been especially successful with the two-stage suprapubic operation, I prefer to employ it in most cases. The time between the two operations varies from one week to one year, with an average of about five or six weeks. By this method the mortality can be reduced to a very low figure, practically the only deaths being those which result from surgical complications over which we have little or no control; namely, emboli, postoperative pneumonia, and so forth.

IMPORTANCE OF PREOPERATIVE CARE

In the preoperative care of patients with hypertrophy of the prostate gland, there are certain points of great importance.

Exercise. Patients should not be permitted to lie in bed a great deal. The day after the introduction of the suprapubic tube, if that is the method chosen for preparation, the patient should get up, and in three or four days should be permitted to walk about the hospital. If it is thought that the interval between operations will be long, the patient may be permitted to go home at the end of a week or ten days. The suprapubic tube causes very little trouble in most cases and many patients are able to do light work.

Means of elimination. It is difficult to set a definite minimum of fluid intake, as some patients require a greater amount of fluid than others. Roughly speaking, a minimal intake of 3,000 c.c.

every twenty-four hours should be given. Some patients, however, require more than double that amount in order to ward off symptoms of uremia; others will show signs of edema on an intake of 4,000 c.c. in twenty-four hours. The surgeon should use his judgment in each case, but most patients require a fairly large intake. The patient in Case I required a very large quantity of fluid (Fig. 1). While acutely ill, he became more uremic when his intake dropped to 3,000 or 3,500 c.c.

tenth day when the tube is removed and the wound permitted to heal.

CASE I (30184)

Mr. W. E. H., aged sixty-four years, came to the Jackson Clinic first February 17, 1922. He had had frequency of urination intermittently for twelve years; at times it was quite annoying, but at other times it was only slight. On admission frequency was rather severe, it being necessary for him to void about every two hours during the day, and every hour at night. He had never suffered

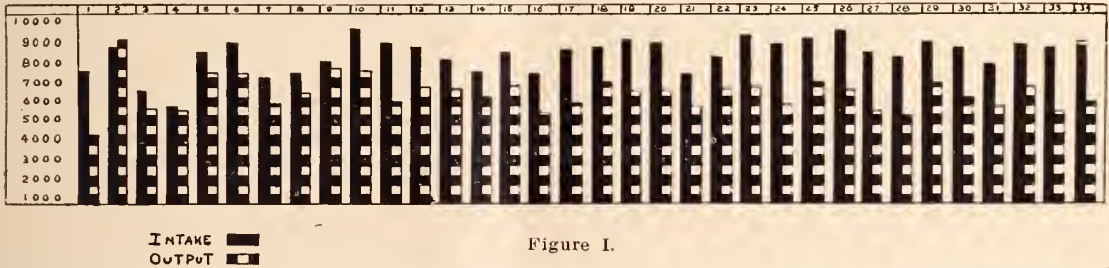


Figure 1.

Fig. 1 (Case I). This chart illustrates the large amount of fluid required after the introduction of a suprapubic drainage tube. The patient became more uremic when his intake dropped to 3000 or 3500 c.c.

When the renal function is low, one hot pack for twenty or thirty minutes every twenty-four hours is of great value; also, a small dose of a saline cathartic should be given every morning.

In determining operability the general appearance of the patient should be taken into consideration as well as the renal function as shown by the phenolsulphonaphthalein test and blood urea. The maximal degree of improvement should be awaited.

In the two-stage operation if the second operation follows the first in less than two weeks, the old scar is opened and the usual exposure obtained. If, however, the second operation is performed more than two weeks after the first, the old scar may be excised and the bladder opened widely, or the sinus may be dilated sufficiently to permit the enucleation of the gland.

To secure hemostasis, I use the Pilcher-Hagner bag with a strip of iodoform gauze tucked around the edges of the capsule. A 30 F. catheter is brought through the suprapubic incision for drainage.

POSTOPERATIVE CARE

The postoperative treatment is not nearly as important as the preoperative care. The water is removed from the Pilcher-Hagner bag in eight hours, but the bag is left undisturbed until the third day when it is removed together with the iodoform gauze and drainage tube. A 26 F. tube is then inserted for drainage. The size of the drainage tube is gradually reduced until about the

complete retention of urine, had never been catheterized, and had never noticed blood in the urine. Difficulty had never been especially marked; but the stream would occasionally stop suddenly, and in fifteen or twenty minutes he would again be able to void a fairly large quantity of urine. He had had pain in both lower quadrants, especially when the bladder was full. It had never been necessary for him to stop his work.

The reports of the physical examination and laboratory findings as recorded on the history read: The patient is large and well nourished. The systolic blood pressure is 160, the diastolic 95, and the pulse rate 80. The heart and lungs are normal. Both epididymes are enlarged and tender. The prostate is very high, and benignly enlarged in both lateral lobes.

Urinalysis revealed specific gravity 1.010, reaction acid, albumin 1, and no sugar. Microscopic examination showed hyaline casts 1, leucocytic casts 1, erythrocytes 1, and pus 1. Residual urine amounted to seven ounces. Combined renal functional test gave a return of 8 per cent in two hours and fifteen minutes (specimen catheterized). Estimation of blood urea showed 50 mg. in 100 c.c. of blood. Examination of blood showed hemoglobin 90 per cent, erythrocytes 5.36, leucocytes 10,500. Roentgenograms of the kidneys, ureters and bladder revealed normal renal outlines and no evidence of calculi.

The patient was sent to the hospital and a suprapubic cystostomy was performed for drainage under local anesthesia.

A precautionary measure very important in such cases is explaining to the patient and the relatives that the condition is really very serious and that the patient may become very sick after any kind of treatment. In many cases in which the symptoms develop slowly and insidiously, as in this instance, the patients adjust their lives to the inconvenience of frequency, and so forth, and continue to carry on their daily work. Then, when any kind of bladder drainage is instituted a severe reaction frequently results and they become extremely ill.

Weeks after Operation	Combined Functional Per cent	Blood Urea m.g.
2	4	98
6	5	95
8	7	
9	13	
10	10	
10.5	6	

The patient was seen occasionally during the next few months, but operation was not thought advisable. Seven months after drainage was instituted he returned very much improved in appearance. The combined renal functional tests showed 20 per cent return, and blood urea 61 mg. in 100

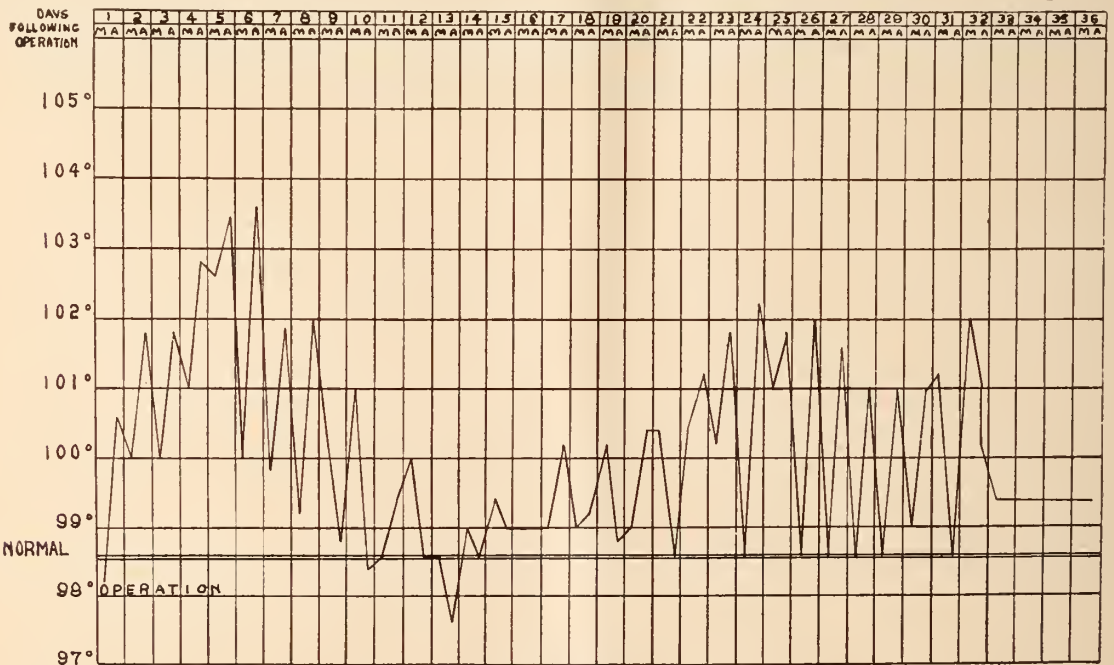


Figure II.

Fig. 2 (Case I). Following the introduction of a suprapubic drainage tube, the patient became uremic

and developed a fever characteristic of sepsis. Anticipation of this, with proper explanation to the patient and relatives, relieves the surgeon of much embarrassment later.

This man became very sick almost immediately after the introduction of the suprapubic drainage tube. He was quite uremic and had a fever characteristic of sepsis (Fig. 2). Improvement was slow, but a little more than three months after permanent drainage was instituted he was sent home with the tube in place.

During this long period in the hospital the reports of the combined renal functional tests and blood ureas were:

and developed a fever characteristic of sepsis.

e.c. of blood. Though the patient begged to be allowed to take his chance and be operated on, he was sent home for further improvement. On his return practically ten and one-half months after operation, the renal function, as estimated by the phenolsulphonephthalein test, was 31 per cent in two hours and fifteen minutes, and the blood urea was 39 mg. in 100 c.e. of blood.

Prostatectomy was performed under gas anesthesia and convalescence was uneventful. A chart of the temperature is shown in Figure 3. The patient's wound is entirely healed now and he voids freely.

COMMENT

One of the points of interest in this case is the

long period of time allowed (ten and one-half months) between cystostomy and prostatectomy, so that operation could be performed with the least risk to the patient. Usually a much shorter time

specific gravity 1.011, reaction alkaline, considerable albumin, and a great deal of pus. Phenol-sulphonaphthalein test showed no excretion of dye in two hours and fifteen minutes. Analysis showed 450 mg. urea and 9.6 mg. creatinine in 100 c.c. of blood. The creatinine test was done by three laboratories, those of the Wisconsin Psychiatric Institute, the University of Wisconsin Medical School, and our own laboratories. The various reports ranged from 9.6 to 9.75 mg. Examination of the blood showed hemoglobin 50 per cent, erythrocytes 3,690,000, and leucocytes 16,600.

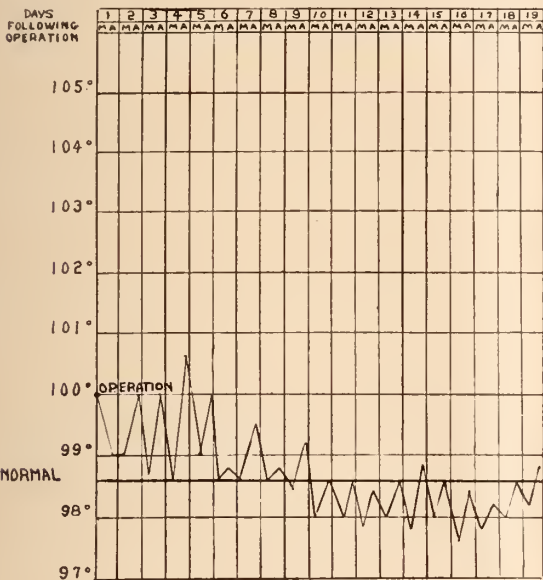
Systolic blood pressure was 165; diastolic, 90. The heart and lungs were normal. A large mass, thought to be the bladder, was felt in the lower abdomen, extending to the level of the umbilicus. On rectal examination the prostate was found to be benign and enlarged 3, on a scale of 1, 2, 3, 4.

Because of extreme renal insufficiency, gradual decompression of the bladder after the method of Van Zwalenburg was planned but it was not possible to pass a catheter. A catheter was then introduced into the bladder by the suprapubic route, under local anesthesia, and though it was expected that the patient would be very ill for a time, he had an unusually smooth convalescence, as shown by the temperature charts and records of intake and output of fluids (Fig. 4). Eight days after operation the blood urea had dropped to 204 mg. and three days later the combined renal functional test gave a return of 2 per cent dye in two hours and fifteen minutes. Seventeen days after operation the combined renal functional test gave a return of 2 per cent dye in two hours and fifteen minutes. The creatinine on this day was 6 mg. in 100 c.c. of blood.

General improvement was rapid after institution of suprapubic drainage. The patient sat up in a chair forty-eight hours after operation, and on the seventeenth day returned to his home sixty miles away. He returned to the Clinic three months after operation for renal functional tests, the reports of which are as follows: combined renal functional test showed 10 per cent return of dye in two hours and fifteen minutes; blood urea 90 mg. and creatinine 2.4 mg. in 100 c.c. of blood. The patient has gained forty-five pounds in weight and is able to do light work in his house and garden.

COMMENT

The unusually high percentage of blood urea and



CASE I
Figure III.

Fig. 3 (Case I). Convalescence was uneventful following prostatectomy ten and one-half months after cystostomy.

is required, but when the renal function remains low, shown by the usual tests, I think one should delay operation as long as a year in order to permit the patient to attain the greatest improvement. Often it is difficult to wait, as the patient becomes restless and desires to be relieved of the drainage tube. This man came to me three months ago and with tears in his eyes begged me to operate, saying that he preferred to be operated on with the full knowledge that the risk would be greater, than to continue wearing a suprapubic drainage tube.

CASE II (33434)

Mr. H. J., aged fifty-four years first came to the Clinic March 25, 1923, with a history of having had very marked frequency, difficulty, and painful urination for nine months. During that time he had to void every one to one and one-half hours day and night. Previous to the beginning of severe symptoms nine months ago, he had had to void once or twice at night, was troubled with nocturnal incontinence, and for several years had noticed some difficulty in starting the stream. He had lost thirty pounds in weight in nine months.

Examination of the urine at that time revealed:

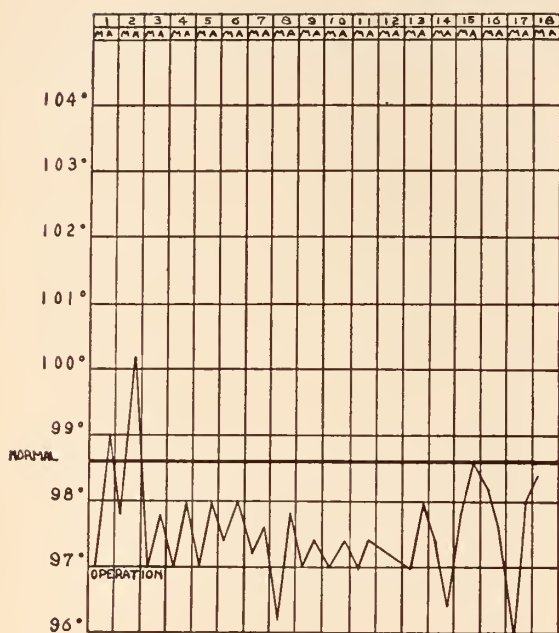


Figure IV.

Fig. 4 (Case II). Suprapubic drainage in patient with extreme renal insufficiency (9.6 mg. creatinine in 100 c.c. of blood) was followed by unusually smooth convalescence.

creatinine and the rapidity with which they dropped after the institution of drainage are very interesting. Unfortunately, however, the improvement in renal function has not been sufficient to warrant prostatectomy. It is very probable that improvement will never be sufficient, as this very low function six months after the institution of drainage would indicate that the damage to the kidney is permanent. I shall, however, continue to "check up" on the condition of this patient until at least a year has elapsed.

HIGH COURT DENIES PLEA OF FAKE HEALER.

That the laws of Wisconsin must and will protect "the unwise and the credulous as well as the able and vigilant," was the statement of Justice Jones of the Wisconsin Supreme Court in a decision denying the plea of Charles Pallotta for a new trial. Pallotta was convicted in Fond du Lac of having secured \$200 by false pretenses and was sentenced to a year in state prison. While awaiting sentence he was again arrested in Green Lake county for practicing medicine without a license and is now serving a year in the House of Correction for that offense.

"The complaining witness," says Justice Jones, "testified that he had heard defendant was a wonderful man and could cure people; that he was told of him by Maud Jenkins at whose house the defendant stayed; that he and his mother consulted defendant and were told that they were suffering from nervousness; that he could cure them; and that they must first pay him \$200. It was further testified that before the bargain was made defendant stated that he was a doctor, the ruler of the Magii and a spiritual healer; that he was as smart as Christ, a chiropractor, and a spiritualist. The complaining witness then went to the bank and drew out \$200 as testified by the teller. The two witnesses testified that on his return this amount was paid to defendant.

"There was testimony that when he took the mother and her son into the bedroom defendant prayed and put a collar having gold tassels on each of them, and spoke magic words over them; that he gave them a couple of nuts to put in their pockets; that he told them to get two silk shirts of the best silk; that he made passes over them and hypnotized them; that for a short time after the treatment complaining witness felt better, but later felt much worse than before."

In writing the opinion of the Court Justice Jones declared that the law is designed to protect the credulous as well as the able and vigilant and that the defense that the victim failed to exercise ordinary care and prudence would not prevail.

"It seems to be now settled by the great weight of authority," said Justice Jones, "that statutes of this character are designed to protect the unwise and the credulous as well as the able and the vigilant. Perhaps the former class more need the protection of the law than the latter. When one has succeeded in defrauding another by means of false representations he should not be allowed to shield himself by the claim that his victim was less clever or more credulous than himself. Hence it is not the prevailing rule or the rule in this state that where all the other ingredients of the offense have not been committed the defendant should be acquitted on the ground that the person defrauded failed to exercise ordinary care and prudence. The real question is not whether the representations are such as might deceive persons of ordinary care but whether they are such as are adapted to deceive and do deceive the persons to whom they are made."

MINUTES OF THE COUNCIL MEETING, HOTEL PFISTER, MILWAUKEE, JUNE 7, 1924

The council was called to order by its Chairman, Doctor Evans, at eleven a. m.

Roll call showed the following present: Councilors, Dearholt, Cunningham, Connell, Windesheim, Evans, Bock, Smith, Dodd, Redelings and Harper; the secretary, President Rock Sleyster, Dean C. R. Bardeen and Dr. Oscar Lotz.

There being no objection to the minutes of the last meeting as printed in the Journal, the chairman declared them approved.

The special committee to consider a charge of negligence in the handling of medical defense presented its report. It was moved by Doctor Windesheim, seconded by Doctor Smith, that the report of the committee that no such negligence could be found be accepted. Motion carried.

Dr. S. S. Hall, treasurer, presented a statement of financial condition as of May 31, 1924. It was moved by Doctor Cunningham, seconded by Doctor Bock, that the report as read be accepted. Motion carried.

STATE MEDICAL SOCIETY OF WISCONSIN

REPORT OF THE TREASURER TO THE COUNCIL

As of date May 31, 1924.

GENERAL FUND

DR.

Balance on hand, Oct. 1, 1923.....	\$11,869.18	
Received from Executive Secretary.....	13,425.89	
Total	\$25,295.07	

CR.

Expense	\$5,899.85	
Transferred to Savings Fund.....	9,307.24	15,207.09
Balance		10,087.98
		\$25,295.07

MEDICAL DEFENSE FUND

DR.

Balance on hand, Oct. 1, 1923.....	\$ 3,077.47
Received from Executive Secretary.....	2,178.00
Total	\$ 5,255.47

CR.

Paid Lines, Spooner & Quarles, Mar. 6, 1924..	\$ 2,556.81
Balance	\$ 2,698.66
	\$ 5,255.47

Respectfully submitted,

SIDNEY S. HALL, *Treasurer.*

The secretary presented several recommendations for action by the council. Action was taken individually as follows:

(1) It was the consensus of opinion that the work of the secretary's office should not be broadened at this time.

(2) It was moved by Doctor Cunningham, seconded by Doctor Connell, that the council should adopt the secretary's recommendation to present a measure to the

next legislature calling for the abolishment of permit fees to prescribe or use liquor for medicinal purposes. The motion was put and carried.

(3) Doctor Sleyster moved that the council accept the recommendation of the secretary that the State Society compile and furnish a series of short weekly health articles to the weekly press of the state and that this service is to be established as soon as practical. The motion was seconded by Doctor Connell and carried.

(4) Upon motion of Doctor Bock, seconded by Doctor Harper, the council approved of the expenditure of \$500 included in the appropriation to the Committee on Public Policy and Legislation by the 1923 House of Delegates; this sum of \$500 to be used for the purpose of conducting, in the high schools of the state, a theme contest on subjects to be proposed by the committee. The motion was put and carried.

The secretary read a letter from Dr. R. E. Mitchell, councilor, asking that the council approve of the merger of the Eau Claire and the Dunn-Pepin County Medical Societies under the name of the Eau Claire District County Medical Society. Doctor Windesheim raised a point of order as to constitutionality. The secretary was directed to ascertain legal advice upon the point raised and to report at the next meeting of the council in August, 1924. It was the consensus of opinion that the merger was entirely satisfactory, providing it did not violate the constitution in the selection of the name.

Upon motion by Doctor Redelings, seconded by Doctor Smith, the secretary was instructed to lend all assistance possible to further the success of the Tri-State Medical Association meeting in Milwaukee in October, 1924.

The secretary read a letter from Dr. C. A. Fidler, secretary of the Wisconsin Surgical Association, dissolved, presenting the State Society with a sum of \$1,179.37, being the balance in the treasury of the association at the time it was dissolved. It was moved by Doctor Smith, seconded by Doctor Sleyster, that the council accept the gift on behalf of the society and that the secretary be instructed to acknowledge the gift on behalf of the council. The motion was put and carried unanimously.

The secretary presented a report to the council on the subject of possible state supervision of fees in certain cases. It was moved by Doctor Smith, seconded by Doctor Dodd, that the secretary be instructed to oppose such regulation on the grounds set forth in the secretary's report. The motion was put and carried.

It was moved by Doctor Dearholt, seconded by Doctor Harper, that Dr. C. S. Sheldon of Madison, for many years secretary of the State Medical Society, be made an honorary member of the society. The motion was carried unanimously.

The secretary was instructed to present such additional requests of county societies for honorary membership at the next council meeting in August.

Dr. C. R. Bardeen, Dean of the University of Wisconsin Medical School, was then invited to address the council on the subject of the new state hospital and on medical education of the University of Wisconsin. Following Doctor Bardeen's address a general discussion was had.

The council adjourned at 3:15 p. m.

J. G. CROWNHART, *Secretary.*

THE WISCONSIN MEDICAL JOURNAL

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"LET GEORGE DO IT."

Under this head we list each month definite offers of service available to our readers—the members of the State Medical Society of Wisconsin. Additions will be made from month to month but if you have a need not covered here your Secretary-Managing Editor will do his best to fill your needs. Address J. G. Crownhart, 558 Jefferson St., Milwaukee.

1. PACKAGE LIBRARIES are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, and Control of Communicable Diseases. Address Package Library Dep't., Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. MEDICAL BOOKS will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. PHYSICIANS' EXCHANGE COLUMN is open to all members without charge.

4. NEW SCIENTIFIC PUBLICATIONS listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. STATE LAWS and Departmental rulings can be secured through the Secretary's office.

6. LEGAL ADVICE upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

EDITORIALS

TOO FORMAL MEETINGS?

RETURNING from the American Medical Association meeting the other day I had the good fortune to ride up from Chicago with a brother practitioner—one of these real doctors who has practiced for years in a small country town and as a consequence is beloved as friend and physician by the entire community. He is of the type who works all day, makes two or three calls during the night, and uses whatever spare time he happens to have browsing through the medical journals to keep in touch with the newer developments in medicine. He does not complain because it is part of his game.

Being city born and bred, I have a tremendous amount of respect and admiration for that type of medical man—a man who gives real services whenever and wherever called, and asks no questions.

Medical as well as lay magazines are today giving considerable space to the passing of this type of general practitioner, and it is true that the young physician of today fully realizes the disadvantages of practicing medicine without hospital facilities and without the opportunities to meet his fellow practitioners.

During our conversation this physician made the statement that there is probably nothing that he missed more in his work than medical meetings. "Yes," he said, "we have meetings occasionally, probably two or three times a year, but you see,

we are quite far from large cities, and it is hard to get the men from these centers to come up to our neck of the woods."

The idea that medical meetings are not worth while unless some outside man can be brought in to present some paper is unfortunately a very common one.

I have been attending medical meetings for the past seventeen years, meetings of the national medical societies, state medical societies, and local medical societies. Perhaps one of the things that I have somewhat objected to in these medical meetings is the fact that they have become entirely too formal—that too frequently the paper is presented by an outside man of splendid reputation in his own field, but because of this condition very little, if any, discussion takes place, and I believe the best part of the paper is lost.

Personally, while of course appreciating to the full the value of men in special lines presenting the latest facts and theories in their specialty, I cannot help but feel that we are losing something very valuable by almost eliminating entirely our informal round table gatherings. All of us have cases and perhaps ideas about treatment that we would like to talk over with our colleagues. Let us not miss this opportunity because of supposed isolation. Let us instead take advantage of this situation and change the word "competition" to "colleague."

O. J.

THE BUSINESS SIDE

THIS Journal was the first of the state medical journals to publish each month an article bearing upon the business side of the physician's life. Because they have been written in an unusual style on pertinent subjects these articles have time and time again been the subject of most favorable and general comment. Many other state journals are now publishing articles on the same subject.

There is a "business side" to every physician's life for he has a duty to himself and his family as well as the duty to make his services available to the poor as well as the rich. If that "business side" has been neglected in the past, we are beginning to wonder if it is not now being over-emphasized. To read many articles and even some publications devoted to the economics of the practice of medicine might lead one to believe that their field was becoming the "business of medicine" instead of the business side.

"FATIGUE as a Factor in the Cause and Treatment of Tuberculosis" is the subject of a paper by Dr. H. A. Pattison of New York read before the meeting of the American Medical Association in San Francisco last June (1923) and now reprinted in pamphlet form.

Fatigue, Dr. Pattison holds, is more important in arousing latent tuberculosis than is usually realized and REST is the most important factor of all in the treatment of tuberculosis.

There is no argument against the assertion that fatigue leads to impaired health and disease. The outbreak even of germ diseases may be traced to fatigue. For instance, Dr. Pattison states that in his own case, for two years following an attack of influenza, he was able to predict the appearance of a furuncle after he had experienced symptoms of severe exhaustion.

The tubercle bacillus, like the staphylococcus, lies dormant in a large percentage of the human race awaiting fatigue to activate it. Malnutrition, often cited as a *cause* of the development of fatigue, is itself a *result* of fatigue.

The most important of the fundamental factors in the treatment of tuberculosis is rest. Such rest serves to bring about the patient's recovery from fatigue which may exist from a number of causes,—from mere physical exhaustion, from malnutrition in the treatment of which rest is essential or from the toxins of tuberculosis disease. In this last case, rest may need to be of months' duration.

Exhaustion from fear or worry, in itself either a cause or result of tuberculosis, often is relieved not by bed rest, but by occupational therapy inducing mental rest.

A disquietingly large number of patients discharged from sanatoria with tuberculosis, which is quiescent or apparently arrested, later break down. Their breakdown may be charged to all the causes associated with fatigue,—exhaustion due not alone to physical exertion but to faulty diet, to a failure to secure a hardening up period before returning to work, to worry, to dread of reinfection.

A. A. P.

LAY EDUCATION

SOME 1200 Fellows of the American Medical Association that reside in Wisconsin received the June Bulletin of the Association. This number had two parts, the second part devoted to a most excellent paper on the regulation of physi-

cians by law. We refer to the paper of Mr. Harry E. Kelly of the Chicago Bar. Mr. Kelly was for many years the legal advisor of the Colorado State Board of Medical Examiners.

Here is a paper that should not go on the shelves. We hope that these 1200 Fellows of the Association in this state will see in this bulletin an opportunity—an opportunity to pass it along for some of their lay friends to read.

THE JOURNAL CLINIC

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The University of Wisconsin.

REPORT OF A CASE OF DIFFUSE SCLERODERMA AND SCLERODACTYLIA*

BY R. L. McINTOSH, M.D., AND
L. L. FRIEDMAN, M.D.

MADISON, WISCONSIN

Sclerodactylia in association with diffuse scleroderma has always been a most puzzling condition and cases in which this combination occurs are of sufficient rarity to be of interest to everyone. The following case is a typical and unusually complete example of this most distressing affliction:

L. J., a white American girl aged 19 years, was admitted to the Bradley Memorial Hospital complaining of stiffness of the joints, ulcerations of the skin and difficulty in swallowing.

At the age of eleven years she had developed a sudden swelling in the right side of the neck, rapid in onset and not accompanied by any subjective symptoms or constitutional reactions. No diagnosis was made at the time and the swelling gradually subsided, the involution covering a period of one year. Following this she noticed the very insidious onset of stiffness in the fingers which became progressively more marked and produced flexion deformities. Later she began to have stiffness of the hip joints, which was not accompanied by any febrile reaction. There was only slight pain on motion. The stiffness of the joints resulted in limitation of motion with difficulty in walking and in the use of the hands. This condition has been stationary during the past few years.

At the age of twelve she first noticed a brownish discoloration over the forearms and around the neck. The pigmentation about the neck has remained constant, but that on the forearms has partially disappeared. At the age of fourteen, small pea-sized discrete nodules began

to develop under the skin, first over the dorsal surfaces of the wrists, later over the forearms, then over the Achilles tendons and diffusely over the lower extremities, most marked over the flexor surfaces. These gradually increased in size, some coalescing with others, the larger ones being about one inch in diameter. Breaking down of these nodules first occurred over the Achilles tendons, discharging a chalky substance which drained for a long period of time, and then finally healed with the formation of depressed glistening scars. Later similar nodules broke down on the elbows and arms.

At the age of fifteen she first began to have ulcerations over the bony prominences. The first of these occurred over the left tibia, later over the patellae and then over the elbows. These ran a long indolent course, discharging a purulent material and finally healing with the formation of scar tissue, as described above.

About one year ago difficulty in swallowing was first noticed. The sensation was described as a "lump in the throat," and there was a sense of constriction as if a rubber band was about her neck. This symptom has increased in severity until the time of admission, when the patient could not swallow solid foods. This produced a most distressing situation.

In the previous medical history we find that the patient had never been very robust and had had measles, German measles, mumps, whooping cough, chicken pox and two attacks of influenza. Tonsillectomy had been performed three years ago with a view to checking the progress of the disease, although she had not had any attacks of sore throat or tonsillitis.

The family history was negative. Mother and father were living and well. There were two brothers, one younger and one older than herself. The mother gave no history of miscarriages. There was no familial history of disease similar to the present case.

To physical examination the patient was a very poorly nourished and underdeveloped female. Features small and upper extremities proportionately smaller than the lowers. The skin over the face was dry and pale. The mouth was small and held slightly open making the upper teeth prominent. The mouth had a constricted appearance and could not be opened widely. The end of the nose was pinched with a pronounced furrow between the cartilages of the two sides.

On the anterior and lateral aspects of the neck was an irregular band of brownish pigmentation, about four centimeters in width, being absent posteriorly. The skin over the forearms was dry and harsh, slightly pigmented and so leathery in consistency that it could not be picked up by the palpating fingers. Over the dorsal surface of the right hand (Fig. I) was a rather deep ulceration about two centimeters in diameter in which numerous small white elevations could be seen. These could be felt as firm concretions just under the base of the ulcer. The edges of the necrotic area were elevated and the surrounding skin was more deeply pigmented than the general cutaneous surface. On the dorsal aspect of the left hand there was a similar but slightly smaller lesion. Over the surfaces of both forearms

*From the Bradley Memorial Hospital, University of Wisconsin.



Figure 1

there were numerous pea-sized, depressed, atrophic scars with a brownish copper colored discoloration. Large similar copper colored scars having a glistening appearance were present over the both patellae. On both thighs above the popliteal fossae there were a few discrete pea-sized subcutaneous calcareous nodules. Over both elbows the skin was thin and glistening and marked the site of previous ulcerations.

The fingers were small, the joints had a clubbed appearance and the little fingers of both hands were almost immovably flexed at an angle of about 120 degrees. The other fingers were partially flexed. The overlying skin was thin, atrophic and glistening with telangiectasis marked over the knuckles.

Extension at the elbows was limited about thirty degrees. Slight flexion deformities were present at the hips. From the styloid process of the right ulna there was a projection forming a small ivory colored eminence directly beneath the skin.

The anterior surfaces of both tibiae were very irregular. There were dilated venules on the buccal mucous membranes, but no other abnormalities were noted.

The thyroid was not palpable, pulse rate was normal. No suggestive eye signs were found.

The general physical examination was otherwise negative.

The laboratory findings were essentially negative. The urine showed a slight trace of albumen. Haemoglobin (Von Fleischl) 76%, red blood cells 4,470,000. Leucocytes varied in number between 6,200 and 10,200.

The differential revealed polymorphonuclears 74%, lymphocytes 24.5%, large mononuclears 0.5% and eosinophiles 1%. The phenolsulphonphthalein excretion for two hours was 65%. The basal metabolic rate was normal. Blood Wassermann was negative.

DISCUSSION

The history of an acute cervical lymphadenitis would indicate a possible infectious process from the buccal cavity or throat; yet the total absence of other symptoms makes this dubious. There was no history of previous disease of the throat and no known exposure to cold. Thus it is probable that the swelling was a localized oedema, a phenomenon which is often one of the earliest manifestations of scleroderma.

The onset of stiffness in the joints was not in this case preceded by arthritic pains nor was any history obtained of the occurrence of local syncope in the fingers or feet. There were no sensory disturbances nor was there any loss of muscle power. Many cases do have rheumatic pains and other phenomena resembling Raynaud's disease, but these symptoms do not necessarily precede sclerodactylia. Some regard rheumatoid arthritis when present merely as an evidence in favor of the neurotic theory of origin.

The formation of ulcerations over the bony prominences in sclerodactylia is not uncommon but the abundant formation of calcareous nodules is rare. These concretions are unlike those of gout, in that they are chiefly calcium carbonate but without urates or uric acid.¹

The pigmentation was not as widespread in this case as in many. It has often been so pronounced as to lead to the suspicion of an Addison's disease, but probably true Addison's disease has existed concomitantly with scleroderma in only a few cases and in those only incidentally. The occurrence of leucoderma is also a common finding in these cases.

As pointed out by recent observers the pathology is not confined to the skin alone but affects also the other tissues and in this patient we have the tissues of the neck so contracted as to inhibit the swallowing of solid foods and to permit the swallowing of liquids only with difficulty.

The X-ray studies reveal even more the general character of the disease, showing a rarification of the long bone and the presence of subcutaneous calcareous deposits (Fig. II & III).

¹Olson, *Jour. of Cut. Dis.*, 1917, Vol. XXXV, p. 96.



Figure II

The diagnosis is a relatively simple matter in well developed cases. The absence of the classical symptoms of Raynaud's disease and the existence of the leathery skin are sufficient to exclude that syndrome. It may be found in association with myxoedema or with hyperthyroidism or without any lesion of the thyroid gland.

The etiology of the disease is unknown. Recent observers² incline strongly towards the belief that

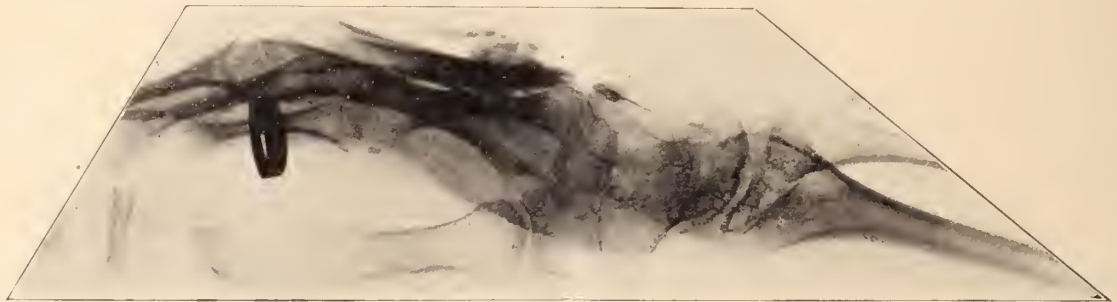


Figure III

it is a trophoneurosis which in all probability is vascular in nature. Microscopic section of the skin shows an increase in the collagenous fibres, comparative absence of blood vessels, marked decrease in the glands of the skin, and hyperpigmentation in the rete and corium.

²Charles Mallory Williams, A Case of Diffuse Scleroderma Presenting Unusual Features. Arch. of Derm. & Syphilology, Vol. 9, No. II, p. 187.

Treatment.

Thyroid gland has been claimed beneficial by many observers, but is of value only in certain selected cases. The use of salol is also said to be beneficial in some cases.

Symptomatic treatment should be carried out by keeping the skin well protected, by the local use of oils and mild ointments.

The Leriche operation (section of the sympathetic fibres by the stripping of the adventitial coat of the main arterial supply for the part) was suggested by Dr. William S. Middleton³ as of possible value in scleroderma, but permission to give this procedure a trial was refused by the patient.

SUMMARY

A case of sclerodactylia in a girl aged 19 years is reported which exhibited unusually widespread involvement of the face and body, ulcerations over the deformed knuckles, elbows and tendon Achilles, the formation of calcareous nodules and the discharge of a chalky substance, involvement of bony structures, pigmentation of the neck and arms, and painful and difficult deglutition.

³Personal communication.

THE STUDENTS' MEETING
UNIVERSITY OF WISCONSIN MEDICAL
SOCIETY
SCIENCE HALL, MONDAY, MAY 26, 1924
MORNING SESSION
ANATOMY

The Facialis Musculature of the Orang, C. W. Osgood.
The Morphology of Nissl Bodies in Animals exhausted by Loss of Sleep, F. W. Schacht.

PHYSIOLOGY

Estimation of Normal Cardiac Area in Man, Dr. Paul Hodges.

The Effect of Exercise upon Tensile Strength of the Connective Tissues, E. Schoenberg and D. Sutor.

PHYSIOLOGICAL CHEMISTRY

The Isoelectric Point of Proteins and Autolysis, A. B. Hertzman.

PATHOLOGY

The Intercellular Substance in Repair Tissue, G. P. Coon.

BACTERIOLOGY

Studies in Bacteriophage Phenomenon, W. S. Thomas.

PHARMACOLOGY

The Therapeutic Value of Certain New Organic Arsenicals in Experimental Rabbit Syphilis, G. E. Wakerlin.

AFTERNOON SESSION

Modern Physiology of the Stomach, Prof. A. J. Carlson, University of Chicago.

READ BY TITLE

The Brain of the Orang, G. K. Tallmadge.

The Internal Architecture of Nerves, A. C. Taylor.

Effects of Changes in Heart Position on the Electrocardiogram, J. A. Wilson.

The Value of Synthetic Fat, Intarvin, in the Treatment of Ketosis, M. Gregg, H. J. Heath and M. S. Reynolds.

The Permeability of the Placenta to Foreign Proteins, F. E. Holford.

A Study of Two Series of Procaïn Derivatives with Reference to the Relationship between their Pharmacological Action and Chemical Constitution, H. L. Schmitz.

Chemotherapeutic Studies of New Arsenicals in Trypanosomal Diseases in Rats and Rabbits, R. G. Whitmer.

MODERN PHYSIOLOGY OF THE STOMACH

BY A. J. CARLSON,

PROFESSOR OF PHYSIOLOGY,

UNIVERSITY OF CHICAGO

Dr. Carlson stated that his consideration of the broad subject of the physiology of the stomach included, in the main, studies of the Chicago group in this field over a period of a number of years. Prior to their work the work of Cannon and Pavlov had constituted the accepted control studies in this field. The work of the Chicago group arose from the available human material in the person of a case of esophageal occlusion with permanent gastric fistula.

Dr. Carlson divided the subject into three headings:

1. Gastric Motility.
2. Gastric Secretion.
3. Pathologic Physiology of the Stomach.

I. He stated that their earliest studies confirmed the observations of Cannon in determining the origin of hunger pains from contraction of the stomach. Study of the mechanism of control of gastric motility determined a similarity to cardiac activity. There was determined a constant motility of the stomach, at least for a short distance from the pylorus, even at rest; but with digestion

this pyloric activity extended to involve the cardiac end as well. The persistence of digestive motility even after section of the vagi and splanchnic argued strongly for an intrinsic mechanism.

It was interesting to learn that any effect of stimulation of the nerves of the mouth was in the direction of inhibition of the motility of the stomach. Contraction and tonus of the stomach were definitely increased during the sleep and there was still the persistence of inhibition through the vagi and the splanchnics under these circumstances. Local stimulation of the mucosa of the stomach and duodenum definitely decreased the contractibility of the stomach. Fasting showed an increased tonicity in the stomach, the contractions were increased and late in the period of fasting nausea developed rather than hunger from these contractions. Possible acidosis plus irritation of the gastric nerves led to nausea. These observations were in direct contrast to the earlier observations of the decreased tonicity of fasting which Dr. Carlson believed to be absolutely unbiologic. He cited the example of the growing ferocity and appetite of fasting animals as evidence of the persistence of hunger. The nerves giving rise to hunger pains are not in the mucosa but in the deeper walls and these hunger pains cannot be reproduced by stimulation of the mucosa. Polyphagia in experimental diabetes is accompanied by hypertonicity of the stomach and excessive contractions. Indeed, the motility of the stomach is the only mechanism which does not weaken. External cold and physical activity were shown to decrease stomach motility; alcoholic drinks likewise decrease motility. The after-effect of cold and exercise was to increase tonicity and contractions.

Interesting observations have grown out of the studies of insulin shock, a fall of the blood sugar to 0.07 led by hypertonicity, and at the point of 0.06 tetany developed in the stomach. This led to the suspicion that the motility of the stomach might be a glucose phenomenon, since hyperglycemia inhibited contractions. However, in event of an inability to consume sugar there was no energy available for the contracting stomach and in this case hyperglycemia was not accompanied by hypermotility until insulin was given. The results have been surprisingly constant in experimental animals and the tetany only develops when the utilization of sugars causes the blood sugar to drop below the point stated above.

II. Dr. Carlson next entered upon the discussion of the secretion of gastric juice, and stated that there was continued secretion even in the absence of the food and stimulus. Indeed, from his clinical standpoint any determination of the acidity of the gastric juice without a knowledge of this factor is fallacious. The mechanism of continued excretion is perhaps an absorption phenomena, based on the absorption into the blood of products of bacterial growth in the intestine. Gastrine is an artifact and depends on the unphysiologic condition of experiments under ether anaesthesia. Mechanical stimulation and distention of the wall increased secretion, although Pavlov had argued to the contrary. Isolation of the stomach in toto with intact blood supply or studies on isolated pockets (resecting all connecting nerves) show still a continued secretion, and Dr. Carlson adheres to the belief that this secretion results from the stimulus of products absorbed in the duodenum.

III. The contraction origin of the hunger pains in gastric ulcer has been the source of much debate. Unquestionably the nerves in this area are hypersensitive, but Dr. Carlson does not believe that the direct influence of acid secretion accounts for the same. He points out the inadequacy of accurate knowledge of the anatomy of the stomach and showed that the vagi contain both motor and inhibitory fibres to the cardia and pylorus. The splanchnic likewise contains similar fibres. Dr. Carlson expressed serious doubt as to the existence of vagotonia and sympathicotonia as clinical entities.

THE MODERN TREATMENT OF LEPROSY

BY FRANKLIN C. McLEAN, M.D.,

PROFESSOR OF MEDICINE, UNIVERSITY OF CHICAGO

Dr. McLean introduced his subject by stating that leprosy constituted a serious problem in the Orient, and that there probably existed over a million cases of this disease in Japan, China and India. Chaulmoogra oil is obtained from the *Taraktogenos kurzii*, a tree native to India and Burma. The fruit of this tree is the size of a small grapefruit and from its seeds, which approximate the size of a brazil nut, oil is expressed and constitutes the true source of the so-called chaulmoogra oil. Other native sources have been determined in trees in the Philippines and elsewhere with the same active principles and properties. However, a common substitution of the fruit of

the *gynocardia odorata* is not efficacious. Dr. McLean discussed the physical properties and chemistry of the chaulmoogra oil, stating that it is a heavy fixed oil, solid here and liquid in the tropics. It has a disagreeable odor, takes up iodine and is dextrorotary to the polariscope. The commercial products in the main are unsatisfactory by reason of their improper sources and preparation. To Power of Burroughs Wellcome Company due credit was given for his studies in the isolation of the active principles. Two new fatty acids were found in the oil, chaulmoogric acid and hydnocarpic acid. Both of these fatty acids are crystalline at ordinary temperature and have a low melting point. Ethyl esters have been prepared from the above fatty acids and Dr. McLean discussed the method of preparation.

Dr. McLean stated that the natives of India had used the seeds of the tree for one thousand years in the treatment of leprosy and from this native custom the British applied the treatment in their own practice. Only one to two per cent of the afflicted could tolerate enough of the crude oil by mouth to cure this condition. Heiser in 1914 first instituted the hypodermic route of administration and a number of his cases were paroled as cured. Rogers attempted to produce a non-irritant substance and ultimately used a sodium salt for hypodermic and intravenous administration. Comparable results were determined. Likewise, Rogers reported good results from cod liver oil and soy bean oil. He believed the unsaturated fatty acid radical to be responsible for the benefits derived. Indeed, Walker and Sweeney in studying the fatty acids of cod liver oil found that they were destructive to acid fast bacilli of either leprosy or tuberculosis, to an extent one hundred times as effective as phenol. However no action on other bacilli was determined and cod liver oil and soy bean oil showed no similar effect. In Hawaii, McDonald, working with Dean, utilized mixed ethyl esters with two per cent iodine, in doses of from 1 to 3 c.c. intramuscularly once a week. At first fatty acids in capsules were given in addition to the above mentioned; later the iodine and alimentary medication were omitted. The formula as stated has been followed closely and no important departure has been determined in the method or dosage.

The results have not approached the earlier estimates and at the present time 15-20 per cent cures

are to be anticipated. Early treatment (within the first year) shows a larger percent of cures effected. Time is insufficient and criteria of absence of leprosy bacilli from the nose or the lesions are rather difficult to satisfy. Several years longer must elapse before the efficacy of this treatment may be finally judged. Intramuscular administration has been given up because of pain and intravenous administration leads to cough commonly. It is encouraging to note that improvement, if not cure, succeeds promptly the institution of treatment. Since the treatment is a serious and protracted procedure it should be carried out in an institution and no results should be expected short of one to four years. Occasionally an acute exanthema, probably in the nature of a reaction of the host to the liberated products of destroyed bacteria, appears. This may be succeeded by a marked improvement, but this improvement is not constant after such reactions. From 60-70 per cent improve under this treatment as outlined, but only the stated 15-20 per cent are cured. Dr. McLean stated the hope that some serologic method might be devised to better determine the progress under this treatment.

This paper was discussed by Doctors Sevringhaus, Loevenhart and Dawson.

PREVENTIVE MEDICINE

Edited by

W. D. STOVALL, Chairman

Section on Preventive Medicine, State Medical Society of Wisconsin

This Section is open to all members of the State Medical Society and others who wish to discuss subjects pertaining to Public Health. Original articles, and criticisms of statements appearing in this section are earnestly solicited. Questions concerning public health procedure will be answered. Address communications to Dr. W. D. Stovall, State Laboratory of Hygiene, Madison, Wis.

THE CAUSES AND PREVENTION OF DIABETES

BY ELMER L. SEVRINGHAUS, M.D.

The treatment of diabetes has made wonderful strides in the last ten years. The foundation for this was laid by Allen's demonstration of the value of diets which caused the diabetic to reduce his weight considerably and to decrease the excretion of sugar at the same time, often to the point of freedom from all sugar in the urine. This treatment is properly called undernutrition, not fasting. It has been used with marked success by Joslin as well as Allen, and since then by many others. The results have been a very definite increase in the expected years of life for the diabetic. These years have not been merely those of an

invalid life but one of activity. During the past two years the discovery of insulin has been a wonderful boon to the patients with a severe diabetes. It promises not only to save life when coma would otherwise snuff it out but to lengthen still more markedly the life of the diabetic. But insulin has not been able in this short time to help us prevent diabetes. The prevention is the goal to which more effort must be given.

There is no doubt that in this country there is an increase in the number of individuals who are suffering from diabetes. A number of factors are probably involved. It is not necessary to suppose that any large share of responsibility attaches to the increase of sugar consumption which is said to have resulted from prohibition. The increase began long before the 18th amendment was passed. It is evidently becoming more important than ever to determine what causes of diabetes are under our control. We can all agree now that diabetes is a condition in which the body is unable to make enough insulin to use the sugar which it must get from the diet. But we must realize that there are several causes for this effect.

The best opportunity for the determination of these different causes has come to those men who have had remarkable success in the treatment of diabetes. These physicians see many cases and have the opportunity to examine both the patients and their histories, and to continue the study for many years. Probably Joslin has seen more diabetics than any living man. He has studied the possible factors which might cause diabetes. His views have been examined and tested by other good observers. They are presented in his recent third edition of "The Treatment of Diabetes Mellitus," (Lea and Febiger, Philadelphia, 1923). Some of the rare causes are cancers or injuries in the region of the pancreas. A few cases seem related to the occurrence of gall stones followed by a backing up of bile into the pancreatic ducts, with necrosis of the gland. Sometimes there are infections of the pancreas that cause diabetes. These troubles usually call for treatment themselves. If the treatment is begun early enough and is successful the diabetes may be improved or cured. Another infrequent factor that may help cause diabetes is the "strenuous life" so common today. An excess of outdoor exercise or physical work does not produce the disease. It is in fact well proven that systematic and moderate exercise are beneficial to

diabetics. But the continuous nervous tension of some American lives seems to be a factor in producing or aggravating diabetes. This is of course only one more indictment against it. With proper advice from the physician and genuine cooperation by the patient much can be done to improve this factor.

The two most prominent causes of diabetes seem to be the hardening of the arteries and continuous overeating in general. The treatment for hardening of the arteries must begin before they are hard. In other words prevention of diabetes from this point of view means the prevention of arteriosclerosis. We know all too little about how to do that. Heart diseases, kidney diseases, and high blood pressures must be treated early and continuously if the hardening process is to be reduced. The prevention of these conditions is a problem itself. Fortunately it is much easier to do something about the matter of overeating. Joslin thinks this is the most important single cause of diabetes. He does not say that diabetes comes from eating too much candy or too much starchy food. The facts remain that most diabetics are overweight when their disease begins. This is especially true for those who first discover the trouble after they are 40 years old. The disease is relatively infrequent among people of the same age who are underweight. It is well known that most Americans eat too much after they get past the thirties, and they consequently get fat. The insurance companies have proved that the fat man has a shorter expectation of life than the lean one after about 30. This is due not only to diabetes but also to heart troubles and other common diseases. It is useless to theorize about why this is so. The use of more food than is really necessary appears to place an undue strain on the pancreas and it may finally break down when some other factor also damages it. The result is diabetes. The best advice that can be given anyone who is past 40 and overweight is forceful advice to reduce. As Joslin suggests, the style makers are more powerful than the medical profession.

It is probably true that overeating is harmful to children also. But underfed children are very susceptible to such diseases as tuberculosis. For this reason it does not appear to be advisable to have young people underweight to avoid diabetes. But in those rather infrequent families where there is an inherited tendency to diabetes the diets

should be planned with care. It is possible to feed children plenty to keep them well and yet not so much that they will be overtaxed. The cases of diabetes occurring in both husband and wife are probably due to the contagion of hearty appetites, not to the contagion of diabetes. The common tendency in treating the patient who is convalescing from a fever is to force his feeding to make him gain weight and strength. This is often dangerous for during some febrile diseases as simple as tonsillitis the poisons circulating in the body from the infection seem to cause at least a temporary damage to the pancreas. If the individual overeats when the pancreas is lame it may be permanently crippled.

Many cases of diabetes are discovered by insurance examiners. Consequently the single act that will do most to prevent diabetes from becoming severe is the habitual examination of the urine of all adults once or twice each year. If the American people can be gradually persuaded to make such use of their family physicians they may expect to reap a fine reward in better health and longer life. Of course such a periodic urine examination should be only one part of a general consultation between the physician and the patients whom he sees from time to time.

For those individuals who have an inherited tendency toward diabetes the methods of prevention lie along the route of very careful diet regulation and the best of care of any infections that may occur. These people from childhood ought to be persuaded to use a diet very much like that of the mild diabetic. They should use sugar very sparingly, and should eat largely of the coarse and the green vegetables in preference to bread and potatoes. Their food may profitably contain large amounts of fat. Of course they must be more careful than other folks to avoid becoming fat.

The methods for the reduction of excess weight are very numerous. Many useful booklets are now published for the use of the medical profession and more particularly for the laity. These agree in the use of two principles: undernutrition and increased exercise. One cannot be too fat unless he eats too much. This is undeniable. The plan of reducing weight will not be the same for all individuals. It must be varied to suit the needs of the age and occupation as well as the types of food the fat patient can eat. The first consideration should be given to the protein of the diet. If

this is cut too low the individual will feel weak and will draw too largely upon essential organs of his body for food. The protein ought to be roughly set at about one-half gram per pound of body weight each day. The bulk of the diet should be made up of the green and juicy vegetables to the practical exclusion of starchy foods like potatoes, bread, and all baked products. Particularly the fats are to be kept as low as is consistent with a satisfying diet. Skimmed milk is substituted for cream, and butter is all but eliminated. For children a small amount of butter is best allowed, to supply the vitamin A. If the vegetables and fruits are used in appropriate amounts the ordinary vitamin needs will be amply met. The result of such a diet if taken in the limited amounts that should be allowed will be a steady loss of weight. This should not exceed two pounds a week. The loss is due to the fact that when insufficient food is supplied, the body derives its source of energy from its own fat. The more exercise is taken the more fat will have to be used to supply the energy. Consequently exercise speeds up the process. Increased physical activity without any change in diet is all that many people need to secure an adequate reduction of weight. It is not advisable to use thyroid extracts to facilitate the reduction of weight except in cases of myxoedema or definite hypothyroidism. In such cases the thyroid is indicated independent of the weight. Thyroid is a quick means of accomplishing the end, but it does so by an intoxication of the body and may lead to damage to the heart.

THE PASTEUR CENTENARY IN PARIS

BY PAUL F. CLARK

PROFESSOR OF MEDICAL BACTERIOLOGY, UNIVERSITY OF WISCONSIN

With hundreds of others, delegates from all parts of the world, we passed up the grand staircase lined by soldiers of the Gardes Republique in their gorgeous uniforms of white, red and blue into the elaborate reception rooms of the Palais d'Elysée, the French "White House." There, we were received very simply by the President of the French Republic and Madame Millerand and welcomed to the opening ceremony of the Centenary Anniversary of the birth of Louis Pasteur. Last year saw many celebrations of the hundredth anniversary of the birth of Pasteur. The universities throughout the world held ceremonies more or less

elaborate and learned societies each in its own way recognized officially the debt of gratitude the world owes to Pasteur for his pioneer work in the fields of chemistry, bacteriology and immunology. But this was the celebration initiated by the Universities of Paris and Strasbourg and fostered by the French Government; this was the national fete of the country of his birth combining with the two cities where he worked the longest. To assist them, guests from all the world were invited to do honor to the memory of the man whom the French people place above Napoleon as their greatest citizen.

I had the good fortune to be one of the delegates from the United States, representing the Society of American Bacteriologists, and as the French Government very courteously extended their invitations to the wives of all the delegates, Mrs. Clark enjoyed most of the festivities with me. The ceremonies in Paris took place on May 24th to the 28th, 1923, and those in Strasbourg on May 31st and June first, although the actual date of the hundredth anniversary was December 27, 1922.

The reception at the Palais d'Elysée, the first event of the celebration, was a gorgeous spectacle of color and gaiety: beautiful women in many colored gowns and rich jewels; distinguished looking men, many in military costume and not a few with obvious scars from the war; lackeys with long blue coats and red velvet knickerbockers, swords and as many war medals across their chests as the generals had; and with it all a spirit of gaiety and enthusiasm for which the French people are deservedly known. A program of music, dancing and scenes from one of Molière's plays was given in one of the large concert rooms of the palace after which delicious refreshments were served. We learned afterwards that in the middle of the evening, President Millerand was called out to persuade Premier Poincaré to withdraw his resignation which had been presented because the courts had failed to support him in a minor matter in the administration of the Ruhr. Now, Poincaré has again resigned and has again been persuaded to reconsider, although this time he is forming a new cabinet.

The next day, ceremonies of greater scientific and academic interest were held, in the morning at the Pasteur Institute and in the afternoon at the Sorbonne. The Pasteur Institute has long been the Mecca for bacteriologists, but this day it was

the shrine at which men from all the professions and from all countries of the world came to pay their homage at the tomb of the one who had pointed the way to Lord Lister, the father of modern surgery, and had laid the foundations of microbiology and preventive medicine. After an impressive opening ceremony with words of greeting from President Millerand and Dr. Roux, friend and collaborator of Pasteur and the present Director of the Institute, the visitors reverently filed around the tomb of Pasteur. The tomb is in a beautifully designed mausoleum of marble and vivid mosaic fittingly located in the Pasteur Institute itself. On the present occasion, flowers and floral decorations were piled high, tributes from all countries.

All the laboratories and the Pasteur Hospital were open for inspection, but such an occasion gives little opportunity for any study of the great variety of work in progress. The museum, however, was filled with special exhibits perfectly fascinating to a bacteriologist. The microscope, the polariscope and the autoclaves used by Pasteur were there; goose-necked flasks used in the experiments which overthrew the doctrine of spontaneous generation; some of his notebooks with descriptions of his experiments and his observations; excellent demonstrations showing different stages of his work in the control of the silk worm disease and anthrax; the historic apparatus used in his successful vaccination against rabies; these and other treasures gave ocular demonstration of the patient accuracy and vision of the founder. As a permanent souvenir of the occasion, each guest was presented with a beautiful bronze medal which the artist Roty had designed for the Jubilee celebration held on Pasteur's seventieth birthday thirty years before, and also an excellent reproduction of a photograph taken when Pasteur was in the prime of life.

The afternoon ceremony, the most impressive of the whole celebration, was held in the great auditorium of the Sorbonne where the Jubilee had been observed. On the platform, with President Millerand again presiding, were grouped the most distinguished guests including Doctors Roux and Calmette of the Pasteur Institute, René Vallery-Radot, Pasteur's son-in-law and author of the inspiring biography of Pasteur; and Dr. Pasteur Vallery-Radot, Pasteur's grandson. On the main floor of the auditorium, were massed the represen-

tatives from different universities and learned societies. An academic function in the United States, especially in the eastern universities, has a certain amount of gaiety because of the bright colored hoods, but in Europe, not only the hoods are vivid silks, satins, and velvet, but the gowns and caps as well. On this occasion, the representatives from the different universities sat together so that in one portion was a gorgeous splash of canary yellow, the doctors of the University of Paris, and in another place was a mass of vivid red, the delegates from the University of Cambridge. No color of the spectrum was neglected: scarlet, magenta, red, blue, yellow, purple, green and orange, all were there and like the flowers in an old-fashioned garden, the most vivid combinations seem to agree harmoniously. Many of the academic hats were different from our mortar boards, too, the University of Paris, for example, decorates its doctors with what look like triple tier chef caps, most impressive, I do assure you.

The meeting was opened by singing the Marseillaise led by a chorus of perhaps 250 women accompanied by the band of the Republican Guard. Would that someone might be inspired to write as thrilling a national anthem for our own country, and one as easy to sing! The entire ceremony was immediately placed on a high plane of appreciation and enthusiasm which lasted throughout the afternoon. There were three formal speeches, fortunately all brief, and these were interspersed with music either by the band or by the chorus. The real spirit of the occasion was shown, however, by the brief speeches made by the delegates from the different governments and learned societies.

The first message was a letter from the Pope, who delighted he said, to bless the occasion, especially because with all his scientific success and attainments, Pasteur had remained deeply religious in spirit to the last. Then the first country to be called upon was the United States and, as Dr. William Welch very happily phrased our appreciation of the debt we owe to Pasteur and expressed our warm sympathy for his fatherland, we Americans all thrilled with pride at the honor shown our country and congratulated ourselves on the excellent choice our government had made in its representative. One after another, Belgium, the South American countries, Great Britain, Italy, Spain, China and Japan for the Far East, Persia for the Near East, the Scandinavian coun-

tries, and South Africa, representatives from all the countries of the world (save Germany) paid tribute to Pasteur, the scientist, and to Pasteur, the man. After more music, came the opportunity for the universities and learned societies to pay homage. Long lines were formed in the aisles as the delegates presented the illuminated parchments bearing the praises of each university for the services of Pasteur to mankind. The table was soon piled high with the tributes and as the names of the different institutions were read, some obscure and far away, and others prominent and near at hand, the whole audience became more and more enthusiastic. In spite of the war, in spite of the difficulties of reconstruction, in spite of the unemployment in England and the devastated areas in France, I am sure that all felt with Pasteur the universality of science. It took very little imagination to turn the clock backwards thirty years and to see Pasteur himself expressing to an audience in this same auditorium his appreciation of their acclamations and affectionate regard and to hear and to echo again his words to the delegates from the foreign nations and to all young men.

"And you who have come so far to give France a proof of sympathy, you bring me the deepest joy that can be felt by a man whose invincible belief is that Science and Peace will triumph over Ignorance and War, that nations will unite, not to destroy, but to build, and that the future will belong to those who will have done the most for suffering humanity.

Young men, have confidence in those powerful and safe methods, of which we do not yet know all the secrets. And whatever your career may be, do not let yourself become tainted by a deprecating and barren scepticism, do not let yourself be discouraged by the sadness of certain hours that pass over nations. Live in the serene peace of laboratories and libraries. Say to yourselves first: 'What have I done for my instruction?' and, as you gradually advance, 'What have I done for my country?' until the time comes when you may have the immense happiness of thinking that you have contributed in some way to the progress and to the good of humanity. But whether our efforts are or not favored by life, let us be able to say as we come near the great goal, 'I have done what I could.'"

And at the end, when all had paid their homage, the great crowd passed out of the auditorium with very little noise and less laughter. They had been

with the men who are ever young: they had been seeing visions and dreaming dreams.

The next morning, a ceremony was held at the Ecole Normale Supérieure which was devoted to the memory of two distinct periods of Pasteur's life, the first from 1838 to 1849 when he was first a student and then an assistant in chemistry in this institution, and the second from 1857 to 1888 when he was for a few years director of the scientific studies and later when he was relieved of administrative duties and left with greater freedom to pursue work in his own laboratories. It was delightful to see the rooms where Pasteur had spent so much of his life and especially interesting to see his private laboratory, where he had worked so arduously and successfully. It was during the first period of his life here that Pasteur worked on the tartaric acids and showed definitely that the occurrence of the dextro and levorotatory acids corresponds to the existence of right-handed and left-handed crystals respectively. To me the most interesting opportunity at the Ecole Normale was the privilege of seeing Pasteur's own laboratory which has been preserved as a museum. Here were exhibited models of the crystals of the tartaric acids which Pasteur had made, and also a number of his note books and some of his experimental flasks. These notebooks were exceedingly neat and well organized and the great detail with which experiments were outlined, impressed me.

Officially, the afternoon was given over to another grand reception, this time at the Hotel de Ville. Mrs. Clark and I decided that we had had enough of such formalities for awhile so we ran off to the Luxembourg Art Gallery, a stroll along Rue Bonaparte and Rue des Saints Perès with window shopping in the fascinating little art shops there, and then a hasty glimpse at some of the treasures in the courtyard of the Ecole des Beaux Arts before going out to dinner at the home of some friends. I suppose I should also chronicle the fact that we missed the last bus, could not find a taxi, so had to walk about half the way back to our hotel. We found that most of Paris goes to bed earlier than we had supposed.

The next day was Sunday and no official celebration took place until evening when gala performances were given both at the Opera and at the Comédie Française. All of the delegates with their wives were given complementary tickets with the privilege of choosing either the opera or the

drama. As we had been enjoying a season of opera at Lausanne we decided to go to the Comédie Française. In Paris quite commonly two plays are given in one evening and on that occasion, the "Miser" and "The School for Husbands," both by Molière, were presented with all the finish and dramatic spirit so characteristic of the best French acting. In Europe generally, no one star absorbs all the glory but each actor is essentially well trained, and the artistic unity is considered of greater importance than the glory of one man. Between the plays a poem, Homage to Pasteur, by Louis Payen, was read with much fervor and received with enthusiasm.

The rest of the celebration in Paris was also festal in character, most enjoyable and interesting and giving excellent opportunity to meet and talk with the different guests, but with a greater emphasis on the social side and less on the scientific side and Pasteur. The next day a grand banquet was held at Versailles in the wonderful palace which when Louis the 15th had his court there, housed ten thousand men and women, courtiers and servants. It was here that the treaty of peace had been forced down the French throats following the Franco-Prussian war, and it was here that the treaty of peace was signed on the dotted line by the Germans in 1919. Special trains took the guests out to Versailles and special automobile busses were in waiting to take us to the palace. In fact throughout the celebration the arrangements were more than excellent, they were liberal and generous. Private auto busses and special trains were always available when needed, no expenditures were necessary save our individual hotel bills and we were granted half fare rates on all French railroads.

Tuesday morning, a moving picture of the life and work of Pasteur was given in an enormous theatre. To this, not only the delegates were invited but also groups of children from different schools in Paris. The character of Pasteur was excellently portrayed and the dramatic incidents of his life told their tale on the screen in a manner so vivid that every French boy and girl in the theatre must have been stimulated.

In the afternoon a lovely garden party was given out at Chantilly, where a castle, once the property of the Condé family, has now become one of the art treasures of the French Government through the gift of the last of that famous family, the Duc

d'Aumale. The furniture, tapestries, books and the remarkable art collections have been left as they were during his lifetime, so that it was not too great a strain on our imagination to feel, as we were asked to do, not that we were in a public museum but that we were the guests of the old family. One of the picturesque features of the afternoon was the music, a band of French horns playing from high balconies in the court yard of the castle some of the old calls to the chase, for Chantilly has always been famous for its horses and its hunting. There is still an important race course there and an enormous tract of land reserved for hunting purposes.

The following morning, a special train bore the delegates across France to Strasbourg where Pasteur had worked in the faculty of chemistry from 1849 to 1854. President Millerand had preceded the party by two days before, going to Strasbourg by way of the little town of Dole, Pasteur's birthplace in the Jura Mountains, where simple ceded the party two days before, going to Strasbourg, an interesting collection of Pasteuriana had been gathered together, and the possibilities of the trip with so many interesting men sounded attractive, but the charms of Paris were too strong for us. The little pavement restaurants, the museums, the little out-of-the-way places to which some of our friends were introducing us, and the opportunity of visiting the Cathedrals at Chartres and Rouen proved to be still more alluring, so we stayed on in Paris.

PUBLIC HEALTH NOTES

A protest filed with the State Board of Health against failure of a case of mumps to be quarantined was answered by the explanation that mumps is not a quarantinable disease, nor does it need to be placarded. Cases must be reported to the health officer and children with the disease are prohibited from attending school. There are no restrictions on other members of the family.

The itinerary of the Child Welfare Special, the motorized health center put in the field by the bureau of child welfare, was completed for the season with the exception of the final ten weeks, which because of better road conditions will be spent in the southern counties. The car started a three weeks' stay in Milwaukee county on May 3.

The remainder of the schedule follows: Winnebago county, two weeks; Outagamie county, two weeks; Waupaca county, three weeks; Lincoln county, two weeks; Iron county, two weeks; Ashland county, two weeks; Price county, three weeks; Chippewa county, three weeks; Trempealeau county, two weeks, thereafter, southern counties.

A parent made complaint against the 28-day quarantine for scarlet fever which compelled absence from school, declaring it was only a mild case with no peeling. The State Board answered: "The mild cases, which are often unrecognized and unreported, are responsible in a large measure for the continuous appearance of new cases, and often with a mild type prevalent in a community in a virulent type of the disease will appear with a very high mortality. If we made any distinction between mild and severe cases, practically all cases would be reported as mild cases and unquestionably many children would be released from quarantine when they had the disease in a communicable form."

No provision is made in the law, a Bayfield physician was told, for exempting from the vaccination requirements persons who have had smallpox. (This statute refers to school attendance when smallpox is present in the school district.)

It was stated that the present law on the appointment of health officers is framed in such general terms that a local board of health cannot be compelled to employ a physician as health officer unless it chooses to do so. It is always advised, however, that where a lay health officer is appointed, provision be made to authorize him to employ a physician to assist him when necessary in diagnosing cases of communicable disease and in advising him when quarantine can be raised:

A physician was advised by the State Board of Health that ichthyosis is usually considered a congenital condition and not classed as communicable, hence is not within the list of diseases for which children are barred from school.

The appointment of a physician who desired to be named in place of a local registrar of vital statistics who contemplates moving away, is not within the jurisdiction of the state board of health.

Power to appoint local registrars rests with the local board of health.

The question arose whether a man and his wife, both with tuberculosis, who are not residents of Wisconsin or of any state in the union, might be admitted to a state sanatorium at the expense of the state or county, both being unable to pay for treatment. Through the board of control the attorney general ruled that they are not entitled to such admission and free treatment, but that under section 49.03 such non-residents may be given care and treatment at a sanatorium at the county's expense. Provision of this kind is to be made by the superintendent of the poor.

TAYLOR ELECTED PRESIDENT OF STATE BOARD; FLYNN IS SECRETARY

Dr. J. Gurney Taylor, Milwaukee, was elected president of the State Board of Medical Examiners at its meeting held in Milwaukee June 24-26th. Dr. R. E. Flynn, La Crosse, was elected Secretary of the Board to succeed Dr. John M. Dodd of Ashland. Dr. Dodd was the guest of honor at a luncheon given him by the Board upon the occasion of his retirement.

Ninety-five were given the examination to become licensed physicians and osteopaths while an additional thirty applied for admittance to the state under reciprocity proceedings. Ten took examinations for masseurs and chiropodists. This constitutes the largest group of applicants ever examined by the State Board.

The Board adopted the recommendation of the American Medical Association in declaring that applicants from foreign countries must have their credentials sent back by the Board for official approval. This is aimed to prevent the presentation of spurious diplomas. The Board failed to take action on the question of employing an attorney to assist in the prosecution of violations of the Medical Practice Act. The lists of successful applicants will be published as soon as the papers have been corrected.

COUNTY COMMITTEES ASKED

The Committee on Public Policy and Legislation of the State Society has asked that a similar committee be appointed in each of the county societies. Where the society is comprised of more than one county, the Committee asks that at least one member of the local committee be chosen from each of the counties represented in the society.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

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Langlade.....	L. A. Steffen, Antigo.....	J. C. Wright, Antigo.
Lincoln.....	L. M. Pearson, Tomahawk.....	W. H. Bayer, Merrill.
Manitowoc.....	F. S. Luhmann, Manitowoc.....	A. J. Shimek, Manitowoc.
Marathon.....	I. M. Adelman, Wausau.....	M. L. Jones, Wausau.
Marinette-Florence.....	T. J. Redelings, Marinette.....	M. D. Bird, Marinette.
Milwaukee.....	M. L. Henderson, Milwaukee.....	E. L. Tharinger, Milwaukee.
Monroe.....	H. B. Johnson, Tomah.....	H. H. Williams, Sparta.
Oconto.....	E. A. Linger, Oconto.....	C. J. Ouellette, Oconto.
Oneida-Forest-Vilas.....	W. C. Bennett, Rhinelander.....	E. R. Boyer, Rhinelander.
Outagamie.....	E. F. McGrath, Appleton.....	E. L. Bolton, Appleton.
Pierce.....	G. M. Dill, Prescott.....	Rolla Cairns, River Falls.
Portage.....	F. A. Marrs, Stevens Point.....	G. H. Lawrence, Stevens Point.
Price-Taylor.....	E. O. Riley, Park Falls.....	E. B. Elvis, Medford.
Racine.....	H. J. Brehm, Racine.....	Susan Jones, Racine.
Richland.....	H. C. McCarthy, Richland Center.....	G. Benson, Richland Center.
Rock.....	J. C. Smith, Beloit.....	G. K. Woodl, Janesville.
Rusk.....	I. F. Clark, Bruce.....	H. C. Johnson, Bruce.
Sauk.....	H. J. Irwin, Baraboo.....	Roger Cahoon, Baraboo.
Shawano.....	W. J. Ragan, Shawano.....	R. C. Cantwell, Shawano.
Sheboygan.....	Edmund Knauf, Sheboygan.....	G. J. Hildebrand, Sheboygan.
St. Croix.....	F. S. Wade, New Richmond.....	B. G. Stockman, Woodville.
Trempealeau-Jackson-Buffalo.....	H. C. Koch, Whitehall.....	R. L. MacCormack, Whitehall.
Vernon.....	H. J. Suttle, Viroqua.....	Wm. H. Remer, Chaseburg.
Walworth.....	Wm. H. MacDonald, Lake Geneva.....	T. P. Keenan, Lake Geneva.
Washington-Ozaukee.....	W. H. Drissen, Port Washington.....	A. H. Heidner, West Bend.
Waukesha.....	S. B. Ackley, Oconomowoc.....	J. F. Wilkinson, Oconomowoc.
Waupaca.....	T. E. Loope, Iola.....	A. M. Christofferson, Waupaca.
Wood.....	J. M. Hogan, Oshkosh.....	R. H. Bitter, Oshkosh.
Winnebago.....	J. B. Vedder, Marshfield.....	W. G. Sexton, Marshfield.

SOCIETY PROCEEDINGS

CHIPPEWA COUNTY

Members of the Chippewa County Medical Society met at Hotel Northern on June 19th. Dr. R. S. Cron, Milwaukee, gave an address on "Operative Obstetrics."

JEFFERSON-DANE COUNTIES

A joint meeting of the Jefferson and Dane County Medical Societies was held at Cedar Lodge, Lake Ripley, on Thursday, June 26. In the afternoon golf, swimming, boating, fishing, and a baseball game entertained the members and their families. Following the dinner the following program was presented: "Toxemias of Pregnancy," Dr. W. F. Nuzum; "Why I Believe in Focal Infection," Dr. W. M. Storey; and "Treatment of Malignant Neoplasms by Colloidal Gold," by Prof. L. A. Kahlenberg of the University of Wisconsin.

MARINETTE-FLORENCE COUNTY

The Marinette-Florence County Medical Society held its regular monthly meeting on Friday evening, June 20th at Marinette. Dr. W. D. Stovall, Madison, presented an address on "Immunity and Vaccine Therapy" which was very interesting as well as instructive. He brought out the new treatment for scarlet fever and said it would be in physicians' hands in the next few months. Dr. M. D. Bird, Marinette, was elected a member of the Committee on Public Policy and Legislation. The chair appointed Dr. G. R. Deur member of the Committee on Health and Public Instruction.

A most enjoyable dinner was served at "The Old English Grill." Some of the members motored eighty miles to be present. M. D. B.

PRICE-TAYLOR COUNTY

The Price-Taylor County Medical Society met at the Medford Clinic on Thursday June 19th. Mr. J. G. Crownhart, Secretary of the State Society spoke informally on the work and aims of the Society.

Dr. L. F. Dietrich, Medford, was elected delegate for the Green Bay meeting and Dr. F. W. Mitchell, Ogema, was elected alternate. Luncheon was served at Hotel Fayette.

ROCK COUNTY

Fifty members of the Rock County Medical Society attended the May meeting held at Mercy Hospital, Janesville. Dr. Mark Goldstein, professor of Gynecology at Northwestern University, spoke on "Diseases of Women."

TREMPEALEAU-JACKSON-BUFFALO

The Trempealeau-Jackson-Buffalo County Medical Society met at Galesville on May 16th. Dr. O'Leary of the Mayo Clinic gave a splendid illustrated lecture on "Diagnosis and Treatment of Common Diseases of the Skin." The meeting was followed by a chicken dinner at the home of Dr. J. J. Powell.

A second meeting was held June 20th at the Mac-Cornack Clinic, Whitehall. The Society had the pleasure and honor of having Mr. J. G. Crownhart, Executive Secretary of the State Medical Society, speak on

the work the Society is doing. The Society commended Mr. Crownhart for the splendid work he is doing as State Secretary. R. L. M.

WALWORTH COUNTY

A meeting of the Walworth County Medical Society was held at the Court House, Elkhorn, on Friday evening, June 6th. The following officers were elected for the ensuing year: President, Dr. W. H. MacDonald, Lake Geneva; Vice-President, Dr. A. M. Leland, White-water; Secretary-Treasurer, Dr. T. P. Keenan, Lake Geneva; Delegate, Dr. E. J. Fucik, Williams Bay; Alternate, Dr. N. F. Crowe, Delevan; and Censor, Dr. B. J. Bill, Genoa Junction.

Dr. C. V. Bachelie, F.A.C.S., Professor of Abdominal Surgery and Gynecology at the Chicago Polyclinic presented an interesting paper on "Uterine Hemorrhages and Gynecologic Problems of Obstetric Origin."

NEWS ITEMS AND PERSONALS

Dr. Stanley J. Seeger, Milwaukee, has re-established offices in the Wells Building. Dr. Seeger spent the last year in Texas with the William Buchanan Foundation.

Dr. George C. Ruhland, for many years City Health Commissioner of Milwaukee, has resigned and will accept a similar position at Syracuse, N. Y., effective August first. Dr. Ruhland was a member of the Committee on Public Policy and Legislation of the State Medical Society.

The honorary degree of Doctor of Science was conferred upon Dr. Frank Billings, Chicago, as one of the four such degrees awarded at the annual commencement of the University of Wisconsin. Dr. Billings just retired as a trustee of the American Medical Association. He was born in Highland, Wisconsin, and has held many positions of honor during his forty years of active practice.

Dr. Alfred G. Kreutzer, professor at Marquette University School of Medicine, has been granted a ten months' leave of absence. Dr. Kreutzer will study abroad.

Dr. Thad W. Ashley, Kenosha, has announced the opening of new offices and hospital at 260 Chicago Street. His practice is limited to medical and surgical treatment of the eye, ear, nose and throat.

Dr. C. M. Gleason, Manitowoc, was named president of the Holy Family Hospital of that city for the coming year. He succeeds Dr. J. F. Meany. Other officers named are: Drs. F. Hammon, vice-president; V. Kellner, secretary and as trustees, Dr. W. G. Kemper and Dr. Andrews.

Announcement has been made that Dr. George H. Hoffman, West Allis, has taken over the practice of Dr. E. W. Maechtle of the same city. Dr. Maechtle will move to Skokoe Heights, Glencoe, Illinois.

Dr. R. L. McIntosh, Madison, left July fifth for an extended trip in Europe.

Dr. Willy Meyer, New York City, was the guest at a banquet given in his honor by the Jackson Clinic, Madison, in June.

The appointment of Dr. W. H. Dohearty, Peshtigo, as surgeon for the Chicago and Northwestern railway was announced in June.

Dr. G. V. Mears, Fond du Lac, has returned from Jacksonville, Florida, where he spent the winter months.

Dr. A. M. Kersten, Los Angeles, is spending the summer months at the home of his daughter in De Pere.

Dr. Claire O. Vingom, Minneapolis, has opened offices in the Beaver Building, Madison.

Dr. David Melhigan, Milwaukee, has been appointed police surgeon. Dr. Melhigan is a graduate of Marquette University.

Dr. George N. Pratt, Appleton, has moved his offices from 803 College Avenue to the Insurance Building.

DEATHS

Dr. Albert A. Mesch, Milwaukee, died June 23rd. Dr. Mesch had established his practice in Milwaukee but six months ago having practiced at Saukville for fourteen years. He is survived by his wife, Mathilda.

SOCIETY RECORDS

NEW MEMBERS

Rogers, John W., U. S. Hospital No. 37, Waukesha.
 Howell, James A., U. S. Hospital No. 37, Waukesha.
 Covey, Clyde B., U. S. Hospital No. 37, Waukesha.
 Leasum, Charles, Sturgeon Bay.
 Wiese, H. F., Eau Claire.
 Christenson, H. A., Hawkins.
 Suffrin, Clement B., Statesan.

CHANGES IN ADDRESS

Pfeifer, H. A., Jackson—120 Wisconsin St., Milwaukee.
 Hanko, Mary E., Reedsburg—Plain.
 Clark, I. F., Bruce—First Nat. Bank Bldg., Durand
 Gerend, A., Westphalia, Mich.—Milladore.
 Cannon, H. J., Wauwatosa—511 Wis. Theatre Bldg., Milwaukee.
 Tisdale, L. C., 307 Grand Ave., Milwaukee—530 Grand Ave., Milwaukee.
 Rogers, P. F., 307 Grand Ave., Milwaukee—530 Grand Ave., Milwaukee.
 Montgomery, A., 221 Grand Ave., Milwaukee—1119 Majestic Bldg., Milwaukee.
 Jacobs, S. A., 194 11th St., Milwaukee—805 Walnut St., Milwaukee.
 Moeller, J., 891 2nd St., Milwaukee—123 Garfield Ave., Milwaukee.
 Brahl, A. J., 307 North Ave., Milwaukee—1174 3rd St., Milwaukee.

Jobse, W. P., 1503 Vliet St., Milwaukee—521 51st St., Milwaukee.

Korthals, F. J., 866 20th St., Milwaukee—861 47th St., Milwaukee.

Bergwall, R. P., 510 11th Ave., Milwaukee—512 Van Buren St., Milwaukee.

Riopelle, W. G., 950 Atlantic Ave., Long Beach, Calif.—108½ Front St., Beaver Dam.

Minahan, J. J., 521 N. Wisconsin St., De Pere—Chilton.

Barta, E. F., 1090 40th St., Milwaukee—Sturgeon Bay.

Dalton, R. E., 3309 McKinley Blvd., Milwaukee—423 46th St., Milwaukee.

Ladewig, Harry, 308 North Ave., Milwaukee—385 Kenwood Blvd., Milwaukee.

Schaper, H., Appleton—Tudor, Alberta, Can.

Schulberg, P. A., Durand—Montevideo, Minn.

Seeger, S. J., Texarkana, Tex.—809 Wells Bldg., Milwaukee.

Maechtle, E. W., 620 69th Ave., West Allis—Skokoe Heights, Glencoe, Ill.

Ryan, Edw. R., 410 Jefferson St., Milwaukee—Suite 425 1st Wis. Natl. Bank Bldg., Milwaukee.

CORRESPONDENCE

Milwaukee, Wis., June 6, 1924.

Mr. George Crownhart, Secretary,
 State Medical Society,
 558 Jefferson St.,
 Milwaukee, Wis.

Dear Sir:

I am enclosing herewith a check for \$1,179.37, that amount being the balance in the treasury of the Wisconsin Surgical Association.

The Association has been dissolved and on action of its members the funds and belongings are turned over to the State Medical Society. Other belongings of the Association will be delivered to you as per our recent telephone communication.

Trusting this will meet with your approval and be to the mutual benefit of us all in the State Society, I beg to remain,

Very truly yours,

CHAS. FIDLER.

Milwaukee, Wis., June 16, 1924.

Dr. C. A. Fidler, Secretary,
 The Wisconsin Surgical Assn., Dissolved,
 221 Grand Avenue,
 Milwaukee, Wisconsin.

Dear Doctor Fidler:

On June 7th I received a letter from you informing me that the Wisconsin Surgical Association had dissolved and that the Association had voted to forward its balance in the treasury of \$1,179.37 to the State Medical Society of Wisconsin. This letter was read before our council meeting on Sunday, June 8th.

It gives me real pleasure to acknowledge this most

unusual gift not only as secretary of the Society but upon behalf of our council. The fund has been turned over to our treasurer and it will be my personal aim to see that it is so applied as to bring real benefit to the members of our state society, among whom are numbered the members of the Wisconsin Surgical Association.

Again assuring you of our sincere appreciation for this generous gift and of the good will that prompted it, I am,

Cordially and sincerely yours,

J. G. CROWNHART,
Executive Secretary.

Madison, Wis., June 18th, 1924.

Mr. J. G. Crownhart, Executive Secy.,
Wisconsin State Medical Society,
558 Jefferson Street,
Milwaukee, Wisconsin.

My dear Mr. Crownhart:

Your letter of the 17th inst. informing me of my election as an Honorary Member of the Wisconsin State Medical Society was duly received. Please convey my sincere thanks to the Honorable Council of the Society for this kind remembrance of a fellow-laborer who still fondly cherishes the memory of warm friendships and most loyal cooperation for so many years in the common cause. I need not assure them that, individually, and as a society, they will be held in affectionate regard by me so long as I shall live.

Sincerely,

(Signed) Charles S. Sheldon.

A NICE COMMENT

"I have just looked over the last number of the Wisconsin Medical Journal," writes Dr. Olin West, Secretary of the American Medical Association. "I am sincere when I say that I think it improves every month."

BOARD OF HEALTH MEETS

The semi-annual meeting of the State Board of Health was held on June 30 at Madison, Drs. William F. Whyte, G. Windesheim, Otho Fielder, L. A. Steffen, Mina D. Glasier and C. A. Harper attending. This was Dr. Glasier's first meeting with the Board since her recent appointment. She becomes the first woman member.

The program for the prevention of goiter as a state-wide endeavor received extended discussion. The Board voted to disapprove the use of either water or salt as the vehicle for the administration of iodine. It was the unanimous opinion that iodine should be given in definite doses and that whenever possible all treatments should be given under the direction of a physician. Unless this is done, it was the belief that many persons who require iodine treatment will not receive a sufficient quantity and that others will receive an over-supply to their permanent injury.

The Board's policy of sending letters of interest to

physicians, including case reports of the Massachusetts General Hospital, met with general approval, and upon motion it was voted to continue the custom.

Recent cases of severe illness due to shoe-dye poisoning were considered, and Dr. A. S. Loevenhart and Dr. C. W. Muehlberger, of the University, discussed with the Board measures for the prevention of such cases. Analysis made by Dr. Muehlberger, the state toxicologist, of dyes manufactured by three concerns and the investigations into individual cases proved, he said, that the dye itself was not the injurious agent and that the poisoning was produced by the vehicle which contains the dye. The Board voted to petition the United States Public Health Service to prevent the interstate shipment of these products, and also requested that all physicians be notified of the dangers from shoe-dye poisoning and that they be given a brief report on the symptoms of this type of poisoning so that they may more readily recognize the cases and cooperate with the Board in obtaining complete reports of them.

A report was made concerning the results of the recent survey by the Census Bureau into the adequacy of Wisconsin birth reporting. The test covered reports of nearly 5,000 births occurring in 30 counties during November and December, 1923. The recapitulation proved that the Board is obtaining reports of more than 93.4 per cent of all births occurring in these counties. The minimum requirement for membership in the U. S. Birth Registration Area is 90 per cent. It was the opinion of the Board that the educational work among physicians, midwives and parents in promoting birth registration should be continued and that in flagrant cases of negligence prosecutions should be started after due warning has been given.

The Board was advised of progress made in instituting, in cooperation with the Indian Bureau, an intensive survey of the health conditions on Indian reservations in Wisconsin, with the object of eradicating trachoma and encouraging general health examinations and health education among the Indian population. The Board approved of this work. The survey was started on June 30 at Bayfield. The schedule as outlined follows: Bayfield, week beginning June 30; Ashland, week beginning July 7; Leona, week beginning July 14; Oneida, week beginning July 21; Gresham, two weeks beginning July 28; Wisconsin Rapids, two weeks beginning August 11; Hayward, week or ten days beginning August 25; Lac du Flambeau, last.

A representative of the Indian Bureau, Dr. L. L. Culp, and one nurse are detailed for the work, and the State Board of Health is providing one physician from the staff of the Bureau of Communicable Disease, with Miss Martha Riley assisting as social worker.

SECRETARY VISITS SOCIETIES

Twenty-three county societies comprising membership in 41 of Wisconsin's 71 counties have now been visited by the State Secretary. Remaining societies will be visited as rapidly as possible with hopes of visiting all before 1925.

Delegates and Alternates Chosen for 1924 House of Delegates for Green Bay Meeting

Society	Delegates	Alternates
Ashland.....	N. S. Hosmer, Ashland.....	J. M. Dodd, Ashland
Barron-P-W-S-B.....	H. C. Wiger, Barron.....	D. L. Dawson, Rice Lake
Brown-Kewaunee.....	J. R. Minahan, Green Bay.....	E. G. Nadeau, Green Bay
Calumet.....	F. J. Fechter, Elkhart Lake.....	J. P. Graves, New Holstein
Chippewa.....	E. P. Ellensou, Chippewa Falls.....	L. A. Larson, Colfax
Clark.....	E. L. Bradbury, Neillsville.....	R. R. Rath, Granton
	S. M. Kyes, Owen.....	F. D. Jaekey, Thorp
Columbia.....	A. F. Schmeling, Columbus.....	C. W. Henney, Portage
Crawford.....	A. J. McDowell, Soldiers Grove.....	W. W. Coon, Gays Mills
Dane.....	C. G. Dwight, Madison.....	W. T. Lindsay, Madison
	F. A. Davis, Madison.....	H. P. Greeley, Madison
Dodge.....	A. E. Bachhuber, Mayville.....	E. S. Elliott, Fox Lake
Door.....	F. C. Huff, Sturgeon Bay.....	G. R. Egland, Sturgeon Bay
Douglas.....	L. A. Potter, Superior.....	T. H. Shastid, Superior
Dunn-Pepin.....	F. E. Butler, Menomonie.....	Julius Blom, Menomonie
Eau Claire.....	G. C. Baird, Eau Claire.....	H. M. Stang, Eau Claire
Fond du Lac.....	D. N. Walters, Fond du Lac.....	J. J. Rehorst, Fond du Lac
Grant.....	C. A. Andrew, Platteville.....	J. H. Fowler, Lancaster
Green.....	J. F. Mauerman, Monroe.....	Edward Bluner, Monticello
Green Lake-W-A.....	W. E. Buckley, Red Granite.....	S. S. Hall, Ripon
Iowa.....	G. H. McCallister, Avoca.....	C. P. Banfield, Mineral Point.
Jefferson.....	H. O. Caswell, Ft. Atkinson.....	W. S. Waite, Watertown
Juneau.....	C. C. Vogel, Elroy.....	
Kenosha.....	G. H. Ripley, Kenosha.....	C. G. Richards, Kenosha
	G. Windesheim, Kenosha.....	E. H. Townsend, La Crosse
La Crosse.....	G. J. Egan, La Crosse.....	
Lafayette.....	P. W. Leitzell, Benton.....	H. O. Shockley, Darlington
Langlade.....	J. C. Wright, Antigo.....	E. G. Moore, Antigo
Lincoln.....		
Manitowoc.....	J. E. Meany, Manitowoc.....	C. M. Gleason, Manitowoc
Marathon.....	L. E. Spencer, Wausau.....	S. M. B. Smith, Wausau
Marinette-Florence.....	A. T. Nadeau, Marinette.....	J. W. Boren, Marinette
Milwaukee.....	J. J. Seelman, Iron Blk.....	G. J. Kaunheimer, 308 North Avenue
	M. L. Henderson, Wells Bldg.....	W. Malone, 114 Grand Avenue
	S. R. Mitchell, 521 Grand Avenue.....	C. Beebe, Wells Bldg.
	F. Pfister, 221 Grand Avenue.....	W. V. Nelson, 149 Lincoln Avenue
	J. W. Hanson, Palace Theatre Bldg.....	W. C. F. Witte, 221 Grand Avenue
	R. W. Blumenthal, M. & M. Bldg.....	W. Egan, 141 Wisconsin Street
	S. Higgins, Wells Bldg.....	F. Petersen, Wauwatosa
	F. Thompson, 425 E. Water Street.....	E. W. Miller, 217 Sycamore Street
	H. Heeb, Loan & Trust Bldg.....	W. Jobse, 521 51st St.
Monroe.....	H. H. Williams, Sparta.....	T. J. Sheehy, Tomah
Oneida-F-V.....	C. A. Richards, Rhinelander.....	T. B. McIndoe, Rhinelander
Oconto.....	C. J. Ouelette, Oconto.....	C. W. Stoelling, Oconto
Outagamie.....	M. J. Sandborn, Appleton.....	E. F. Mielke, Appleton
Pierce.....	J. M. Conway, Spring Valley.....	Rolla Cairns, River Falls
Portage.....	F. A. Southwick, Stevens Point.....	J. D. Lindores, Stevens Point
Price-Taylor.....	L. S. Dietrich, Medford.....	F. W. Mitchell, Ogema
Racine.....	J. S. Keech, Racine.....	C. O. Schaefer, Racine
Richland.....	G. Jamieson, Lone Rock.....	George Parke, Viola
Rock.....	W. A. Munn, Janesville.....	Wm. Allen, Beloit
Rusk.....	W. F. O'Connor, Ladysmith.....	J. C. Baker, Hawkins
Shawano.....	C. E. Stubenvoll, Shawano.....	E. L. Schroeder, Shawano
Sauk.....	L. W. Sayles, Baraboo.....	Ed. McGrath, Baraboo
Sheboygan.....	Otho Fielder, Sheboygan.....	Arthur J. Knauf, Sheboygan
St. Croix.....		
Trempealeau-J-B.....	H. A. Jegi, Galesville.....	Wm. Belitz, Cochrane
Vernon.....	F. E. Morley, Viroqua.....	C. H. Trowbridge, Viroqua
Walworth.....	E. J. Fucik, Williams Bay.....	N. F. Crowe, Delevan
Washington-O.....	Geo. Savage, Pt. Washington.....	H. Allers, Allenton
Waukesha.....	A. W. Rogers, Oconomowoc.....	Floyd W. Aplin, Waukesha
Waupaca.....	T. E. Loope, Iola.....	F. E. Chandler, Waupaca
Winnebago.....	R. B. Rogers, Neenah.....	J. M. Hogan, Oshkosh
Wood.....	F. X. Pomainville, Wisconsin Rapids.....	Karl W. Doege, Marshfield

Tentative Program By Days Announced For Annual Meeting At Green Bay, August 20, 21 and 22

With the announcements of college reunion luncheons, the annual banquet and dance, special automobile tours, and the golf tournament, plans for entertaining members in attendance at the 78th Annual Meeting are rapidly taking final form.

"August twentieth to twenty-second will be red letter days for Green Bay—we want them to be the same for all the members," declare the Committee members.

President Rock Sleyster will deliver the annual president's address at the banquet to be held at the Hotel Northland, Thursday evening, August twenty-first. The subject will be of interest to both the members and their wives. Following the address the card tables will be ready in the adjoining room. In the main banquet hall Dr. A. O. Olmsted will usher in a special orchestra which he promises will produce such alluring strains as to empty the card room before it is filled.

HOTEL RESERVATIONS

may be made through Dr. R. C. Buchanan, Green Bay. The rates vary from \$1.50 to \$7.00 per day at the different hotels. Excellent rooms may be secured at private homes from \$4 to \$6 a week—all week or part of the week. Let us know your wants.

NO CHARGE UNDER 15 MILES

"The speed limit up to 15 miles an hour is free," declares Dr. J. R. Minahan, chairman of the Arrangements Committee. "Beyond that the Police Justice makes a reasonable charge, and anyone driving a car while intoxicated gets a fine of \$100 and costs, and is very often sentenced to the workhouse for 30 to 90 days.

"Parking space and camping space are free at Bay View Beach. The swimming is fine and we advise everyone to bring their bathing suits. Golf at the Country Club will be open to all members of the Society and a tournament will be arranged for those who think they possess a superior brand of skill."

Dr. P. M. Clifford, Green Bay, is chairman of the Automobile Committee. He will not only secure garage reservations for the members but promises no lack of "hop in—where to" cars for those who come by train.

COLLEGE REUNIONS

College luncheons are being arranged by special committees so that the graduates will have an opportunity to talk over the "team" with men from their own school. The luncheons will all be given on Thursday noon, August 21st, the second day of the meeting.

YOU GOLFERS

who claim to be good, fair, poor, or indifferent. All should get in touch with Dr. J. J. Robb, Green Bay, who will arrange the annual tournament.

LOCAL COMMITTEES APPOINTED

The general entertainment committee and its sub-committees are:

Entertainment: Drs. Robert L. Cowles, Chairman; F. J. Gosin, A. J. McCarey, J. J. Robb, E. G. Nadeau, H. P. Rhode, W. H. Bartran, R. M. Carter, E. S. Knox, F. L. Crikelair, G. F. Goggins, W. E. Mueller, H. Hendrickson, S. F. Rudolf, I. E. Levitas, and O. W. Saunders.

The following are the sub-committees appointed.

Golf Tournament: Dr. J. J. Robb, chairman.

Rush Luncheon: Drs. R. M. Carter, Chairman, I. E. Levitas, and O. W. Saunders.

Northwestern Luncheon: Drs. W. H. Bartran, chairman, H. Hendrickson, and S. F. Rudolph.

Marquette Luncheon: Drs. F. L. Crikelair, Chairman, E. S. Knox, and G. F. Goggins.

Chicago P. and S. Luncheon: Drs. E. G. Nadeau, Chairman, H. P. Rhode, and W. E. Mueller.

Ladies Entertainment Committee: Mrs. R. C. Buchanan, Chairman, and the wife of every member of the Brown-Kewaunee County Society.

The annual meeting will open with the first session of the House of Delegates at Hotel Northland, Tuesday evening, August nineteenth. The scientific sessions will open at Bay View Beach Wednesday morning at nine. The second scientific session will open at two P. M. Instead of holding the second session of the House of Delegates Wednesday morning, this session will be held Wednesday evening at Hotel Northland. A general smoker will precede the session to which all members are invited. The proposed policies of the society for

1925 will be discussed and voted upon at this meeting and every member is urged to attend.

The scientific sessions will resume Thursday morning at nine. Thursday noon college lunches will be held for the several college groups. The Thursday afternoon sessions will be followed by the annual banquet and dance at Hotel Northland.

"Strictly informal" is the Committee warning.

The last scientific sessions will be held Friday morning and afternoon.

EXHIBIT HALL TO BE FILLED

With 24 booths already reserved, the entire exhibit hall will be filled with commercial-scientific exhibits. Everything that is new as an aid to the physician will be shown and demonstrated at the several booths. The reservations made at the time this issue goes to press include:

- Abbott Laboratories, Chicago, Ill.
- A. S. Aloe Company, St. Louis, Mo.
- Frank S. Betz Company, Hammond, Indiana.
- DeVilbiss Manufacturing Company, Toledo, Ohio.
- Dry Milk Company, New York City.
- H. G. Fischer Company, Chicago, Ill.
- Hanovia Chemical and Manufacturing Company, Newark, N. J.
- Horlick Malted Milk Company, Racine, Wis.
- Huston Brothers, Chicago, Ill.
- E. H. Karrer Company, Milwaukee, Wis.
- Kremers—Urban Company, Milwaukee, Wis.
- John E. McIntosh, Chicago, Ill.
- Mead Johnson and Company, Evansville, Ind.
- Medical Protective Company, Fort Wayne, Ind.
- Mellin's Food Company, Boston, Mass.
- Middlewest Laboratories, Chicago, Ill.
- C. V. Mosby Company, Publishers, St. Louis, Mo.
- National Research Laboratories, Pittsburgh, Pa.
- Pengelly X-Ray Company, Minneapolis, Minn.
- Radium Chemical Company, Pittsburgh, Pa.
- Radium Institute, Green Bay, Wis.
- Roemer Drug Company, Milwaukee, Wis.
- W. B. Saunders' Publishing Company, Philadelphia, Pa.
- G. D. Searle Company, Chicago, Ill.

PRELIMINARY PROGRAM

All sessions to be held at Bay View Beach unless otherwise noted.

TUESDAY, AUGUST 19TH

7:30 P. M. First session, House of Delegates, Hotel Northland.

WEDNESDAY, AUGUST 20TH

9:00 A. M. Morning Session opens.

- A MICRO FOLIN-WU METHOD OF BLOOD SUGAR ESTIMATION, USING ONE-TENTH C.C. BLOOD.....T. L. Byrd, Milwaukee
- FULGURATION IN THE TREATMENT OF CANCER AND PRECANCEROUS CONDITIONS..T. W. Nuzum, Janesville

A MORE HOPEFUL VIEW OF CANCER WITH SPECIAL REFERENCE TO GASTRIC CANCER.....K. H. Doege, Marshfield

HOW CAN WE BETTER OUR CANCER RESULTS?.....W. E. Ground, Superior
SURGICAL DIATHERMY IN THE TREATMENT OF MALIGNANT LESIONS OF THE BUCCAL CAVITY AND SKIN...Francis B. McMahon, Milwaukee
2:00 P. M. Afternoon Session opens.

THE USE OF CHLORINE GAS IN THE PREVENTION AND TREATMENT OF CERTAIN RESPIRATORY DISEASES, WITH DEMONSTRATION OF CHLORINE GAS EJECTOR.....Lt. Col. Harry L. Gilchrist, M. C. U. S. A., Chief of Medical Division, Chemical Warfare Service

Discussion opened by Gilbert E. Seaman, Milwaukee.
COMPLICATIONS OF SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR.....R. C. Smith, Superior
Discussion opened by W. E. Grove, Milwaukee.

CATARACT OPERATIONS BY SUCTION, THE BARRAQUER METHOD.....Samuel G. Higgins, Milwaukee
Discussion opened by F. H. Haessler, V. A. Chapman, and G. I. Hogue, Milwaukee.

THE ACTION OF TRYPARSAMID ON THE OPTIC TRACT.....E. E. Neff, Madison
7:30 P. M. Second Session, House of Delegates, Hotel Northland.

8:15 P. M. General Session and Smoker for Discussion of Socio-Medical Questions.

THURSDAY, AUGUST 21ST

LOWERING THE THRESHOLD OF OPERABILITY FOR PROSTATISM.....J. C. Sargent, Milwaukee

REPAIR OF THE INTERNAL RING IN OBLIQUE INGUINAL HERNIA..F. Gregory Connell and C. J. Combs, Oshkosh

TYPES OF FRACTURES SUITABLE FOR OPEN OPERATIONS.....Joseph F. Smith, Wausau

THE USE OF OX-BONE IN THE OPEN METHOD TREATMENT OF FRACTURES.....Wilson Cunningham, Platteville

PRESERVATION OF FUNCTION AFTER ACCIDENTS TO THE FEET.....J. M. Dodd, Ashland

SURGERY OF THE BILARY PASSAGES.....C. A. Hamann, Prof. of Surgery and Dean, Western Reserve University, Cleveland, Ohio

12:30 P. M. College Group Luncheons.

2:00 P. M. Afternoon Session opens.

THE MODERN MEANING OF BILIOUSNESS, ITS DIAGNOSIS AND MANAGEMENT.....Frank Smithies, Chicago

SOME PROBLEMS IN THE DIAGNOSIS OF PERNICIOUS ANEMIA.....T. L. Szlapke, Milwaukee

STANDARDIZATION IN DIGITALIS MEDICATION.....E. F. Bickel, Oshkosh

CHRONIC CERVICITIS AND ENDOCERVICITIS (Illustrated).....Carl H. Davis, Milwaukee

RELATION OF URETERAL STRICTURE TO RENAL CALCULI.....W. G. Sexton, Marshfield

.....C. A. Hedblom, Chief Surgeon, State General Hospital, Madison.

6:30 P. M. The Annual Banquet, Hotel Northland (Informal)

Dr. Rock Sleyster, President of the State Medical Society, will present the only address of the evening—the President's Address.

Dancing and cards at 9:00.



Members attending the annual meeting at Green Bay will have the opportunity of seeing the first hospital erected in the middle west which served as the surgeon's headquarters of old Fort Howard. Erected in 1816, the building at one time was the home of Dr. William Beaumont honored for his physiological experiments. The building still stands on Kellogg Street.

FRIDAY, AUGUST 22ND

9:00 A. M. Morning Session opens.

- SURGICAL PROBLEMS IN THE MANAGEMENT OF TOXIC GOITER.....Arnold Jackson, Madison
- CLINICAL STUDIES OF HEART ACTION IN GOITER, BEFORE AND AFTER THYROIDECTOMY.....Karl K. Borsack, Fond du Lac
- THE IMPORTANCE OF EARLY RECOGNITION OF SERIOUS ESOPHAGEAL LESIONS.....Justin M. Waugh, Cleveland, O.
- HYPERTHYROIDISM AND HYPERACIDITY—AN ANALOGY.....George Crile, Cleveland, Ohio

2:00 P. M. Afternoon Session opens.

- ULCERS OF THE STOMACH AND DUODENUM.....E. S. Judd, Rochester, Minn.
- THE DIAGNOSIS AND SIGNIFICANCE OF THE PATHOLOGICAL APPENDIX.....B. H. Orndorf, Chicago
- PULMONARY EMBOLUS.....W. J. Tucker, Ashland
- SYPHILIS OF THE AORTA.....E. L. Miloslavich, Marquette University School of Medicine, Milwaukee
- SOME NOTES ON THE TREATMENT OF SYPHILIS.....James A. Evans, Boston, Mass.
- FISTULAE OF THE BLADDER.....Cyril G. Richards, Kenosha

Some few additions to the program will be announced in the final program published in the August JOURNAL and distributed at the meeting. The additions will include other invited guests.

GREEN BAY HOME OF DR. BEAUMONT

In visiting Green Bay, members of the Society will have the opportunity of seeing the old station of Dr. William Beaumont, honored by the American Medical Association for his work on the physiology of digestion. Because of this fact we are reprinting from a previous issue a brief ex-

tract of the accident that formed the basis for Dr. Beaumont's remarkable piece of research work. We quote from Greeley's "Early Wisconsin Medical History:"

"The incident which was to direct the whole course of his life and which created for him the opportunity for his great work is vividly described by an eye witness of the accident: 'This Alexis St. Martin was at the time one of the American Fur Company's engagees, who, with quite a number of others, was in the store. One of the party was holding a shotgun (not a musket), which was accidentally discharged, the whole charge entering St. Martin's body. The muzzle was not over three feet from him—I think not over two. The wadding entered, as well as pieces of his clothing; his shirt took fire, he fell, as we supposed, dead.

"Dr. Beaumont, the surgeon of the fort, was immediately sent for, and reached the wounded man within a very short time—probably three minutes. We had just got him on a cot and were taking off some of his clothing. After Dr. Beaumont had extracted part of the shot, pieces of clothing, and dressed his wound carefully, Robert Stewart and others assisting, he left him, remarking: 'The man can't live thirty-six hours. I will come to see him by and by.'

"There followed the most careful and prolonged treatment extending over a period of two years, the latter half of which was spent in Beaumont's own home, since the county refused further charity. This is an eloquent tribute to the spirit of the man, for at this time, his motives were purely humanitarian. In addition we must remember that a surgeon's salary at this period was forty dollars a month. In spite of all his care, however, the patient's wound would not close, there remain-

ing an aperture in his stomach about the size of a man's thumb. We learn from Dr. Beaumont's diary that he did not conceive of the plan of using the patient for experimental purposes until three years after the accident, when he comments as follows: "This case affords an excellent opportunity for experimenting upon the gastric fluids and process of digestion. It would give no pain, nor cause the least uneasiness, to extract a gill of fluid every two or three days, for it frequently flows out spontaneously in considerable quantities. Various kinds of digestible substances might be introduced into the stomach, and then easily examined during the whole process of digestion. I may, therefore, be able hereafter to give some interesting experiments on these subjects."

"It was nearly four years after the accident that Beaumont began his experiments on the physiology of the stomach, but scarcely had he got under way when he was transferred to Fort Niagara. After completing some of his investigations he tried to get a furlough for the double purpose of visiting his family at Plattsburg, and exhibiting Alexis to some of the scientists of the day.

"While enroute, however, the ungrateful Alexis took French leave and crossed the Canadian border to his home in Ontario, where he was 'lost to sight, to memory dear' for the next four years. Thus just at the beginning Beaumont was deprived of his subject, a disappointment so keen that it was months after that he became reconciled to the loss, and then only because he hoped someone else more fitted than he to carry on the work he had begun would fall heir to Alexis.

"The experiments already performed related to the time of digestion of certain foods and the temperature of the stomach.

"Some months afterward he was again transferred, this time to Fort Howard (Green Bay). During his stay here he corresponded with the Surgeon General in relation to vaccination for small pox, and introduced it into Wisconsin, and also while here the truant Alexis was located and finally persuaded to enter Beaumont's service, after four years of absence. By this time, however, Beaumont had again been transferred, this time to Fort Crawford. He describes his later work in these words: 'After considerable difficulty, and at great expense to me, they succeeded in engaging Alexis and transported him from lower Canada, with his wife and two children, to me at Fort Crawford, Prairie du Chien, Upper Mississippi, a distance of nearly two thousand miles, in August, 1829. His stomach and side were in a similar condition, as when he left me in 1825. The aperture was open and his health was good.

"He now entered my service, and I commenced another series of experiments on the stomach and gastric fluids, and continued them interruptedly until March, 1831. During this time, in the intervals of experimenting, he performed all the duties of a common servant, chopping wood, carrying burdens, etc., with little or no suffering or inconvenience from his wound. He labored constantly, became the father of more children, and enjoyed as good health and as much vigor as men in general. He subsisted on crude food in abundant quantities, except when on prescribed diet for particular

experimental purposes and under special observance.

"In the spring of 1831 circumstances made it expedient for him to return with his family from Prairie du Chien to lower Canada again, I relinquished his engagements to me for the time on a promise that he would return when required, and gave him an outfit for himself, wife and children. They started in an open canoe via the Mississippi, passing by St. Louis, Mo., ascended the Ohio River, then crossed the state of Ohio to the lakes, and descended Lake Erie, Ontario, and the River St. Lawrence to Montreal, where they arrived in June."

"Two years later Beaumont applied for a year's furlough to go abroad to study and investigate the patient. The request was granted only to be countermanded because of the impeding Black Hawk War.

"During this period the last great epidemic swept through the Mississippi valley. Cholera was brought from Detroit by a regiment of soldiers and it swept the country, decimating the soldiers, and with great fury, attacking the Indians.

"Finally, after the war and the cholera epidemic, a furlough was granted for six months and according to agreement, Alexis St. Martin met Beaumont at Plattsburg, and the doctor immediately began his experiments again, not however, until he had drawn up and had signed the following unprecedented and unique contract:

"Articles of agreement and covenant, indented, made, concluded and agreed upon at Plattsburg, in the County of Clinton and State of New York, the Nineteenth day of October, in the year of our Lord one thousand eight hundred and thirty-two, between William Beaumont, Surgeon in the Army of the United States of America, of the one part, and Alexis St. Martin, Laborer, of Berthier, in the Province of Lower Canada, of the other part, as follows, to-wit:

"The said Alexis St. Martin, for the consideration herein mentioned, doth covenant, promise and agree to and with the said William Beaumont, his heirs, executors, administrators and assigns, by these presents in manner following—that is to say that he, the said Alexis, shall and will for and during the full term of one year, to begin and to be accounted from the date of these presents, serve, abide, and continue with the said William Beaumont, wherever he shall go or travel or reside in any part of the world, his covenant Servant, and diligently and faithfully, and according to the utmost of his power, skill and knowledge, exercise and employ himself in and do and perform such service and business matters and things whatsoever as the said William shall from time to time order, direct, and appoint to and for the most profit and advantage of the said William, and likewise be just and true and faithful to the said William in all things and in all respects.

"And the said Alexis, for the consideration hereinafter mentioned, further specially covenants and agrees with said William that he, the said Alexis, will at all times during said term, when thereto directed or required by said William, submit to, assist and promote by all means in his power such Physiological or Medical experiments of the said William in relation thereto, and

Wisconsin Registration Heavy at A. M. A. Session: Sleyster Re-elected Vice-Speaker

Three hundred and fifty-three members of the State Medical Society of Wisconsin registered at the 75th Annual Meeting of the American Medical Association held in Chicago in June. In the House of Delegates Wisconsin was represented by Drs. Rock Sleyster, Wauwatosa; H. M. Brown, Milwaukee, and Joseph Smith, Wausau.

With paid up memberships for 1924 close to 1800, Wisconsin retained its three delegates in the reapportionment of the House. Dr. Rock Sleyster was again re-elected Vice-Speaker of the House for the coming year while Doctor Brown was named as a member of the reference committee on Legislation and Public Relations.

Ackley, S. B., Oconomowoc	Coon, G. E., Milton Junction	Fogo, Hugh M., Evansville
Adams, George F., Kenosha	Coon, G. W., Milton Junction	Folsom, Wm. H., Fond du Lac
Allen, Jessie P., Beloit	Coon, H. M., Stevens Point	Forbush, S. W., Orfordville
Andrews, M. P., Manitowoc	Cooney, Edward, Appleton	Ford, W. B., Milwaukee
Armbruster, B. F., Milwaukee	Corr, J. T., Racine	Fortier, C. A. H., Milwaukee
Ashley, T. W., Kenosha	Cowan, Wayne F., Stevens Point	Fortner, W. H., Princeton
Bardeen, C. R., Madison	Cox, LeGrand M., Milwaukee	Fowler, James H., Lancaster
Beebe, George W., Eau Claire	Crockett, W. W., Beloit	Freeman, J. M., Wausau
Bennett, J. F., Burlington	Crosley, G. E., Milton	French, Merle R., Milwaukee
Benson, Gideon, Richland Center	Curtin, A. L., Milwaukee	Frost, Wm. Dodge, Madison
Bergwall, R. P., Milwaukee	Cushing-Lippitt, Eleanore, Milwaukee	Gaenslen, Fred J., Milwaukee
Bertrand, J. H., DeForest	Davis, C. H., Milwaukee	Garrett-Bangsberg, S. L., La Crosse
Bill, B. J., Genoa City	Davis, F. A., Madison	Gates, Adam J., Tigerton
Bilstad, G. E., Cambridge	Dawson, D. L., Rice Lake	Gavin, S. E., Fond du Lac
Binnie, H. A., Kenosha	Dennis, J. Frank, Waterloo	Gephart, C. H., Kenosha
Birk, B. J., Milwaukee	Denwire, M. V., Sharon	Geyer, C. W., Milwaukee
Bitter, R. H., Oshkosh	Dill, G. M., Prescott	Gillette, H. E., Pardeeville
Black, Nelson M., Milwaukee	Doctor, J. C., Racine	Goggins, J. W., Chilton
Blackbourn, F. E., Cassville	Dodd, J. M., Ashland	Gramling, H. J., Milwaukee
Blankinship, R. C., Madison	Doege, K. W., Marshfield	Gratiot, Mary P., Shullsburg
Bolton, E. L., Appleton	Doern, Wm. G., Milwaukee	Gray, A. W., Milwaukee
Boyce, S. R., Madison	Donnell, J. E., Cuba City	Gray, Walter K., Milwaukee
Boyd, C. D., Kaukauna	Driessel, S. J., West Bend	Greeley, Hugh P., Madison
Boyd, G. T., Fond du Lac	Dudley, Lewis W., Statesan	Grigsby, R. O., Kenosha
Brook, J. J., Milwaukee	Dwight, C. G., Madison	Grosskopf, E. C., Milwaukee
Brooks, E. H., Appleton	Eastman Verne E., Wausau	Grove, W. E., Milwaukee
Brown, E. B., Beloit	Eck, G. E., Lake Mills	Guilfoyle, J. P., Evansville
Brown, G. V. I., Milwaukee	Echols, C. M., Milwaukee	Hackett, James H., Milwaukee
Brown, H. M., Milwaukee	Edmondson, C. C., Waukesha	Haessler, F. H., Milwaukee
Brown, J. F., Waupun	Eidam, Louis W., La Crosse	Hall, R. M., Milwaukee
Buck, G. C., Platteville	Eisenberg, J. J., Milwaukee	Halsey, Richard C., Lake Geneva
Buerki, R. C., Madison	Elfers, J. C., Sheboygan	Hansen, J. W., Milwaukee
Byrd, F. Luther, Milwaukee	Elsom, James C., Madison	Hardy, C. F., Milwaukee
Caffrey, A. J., Milwaukee	Evans, Edward, La Crosse	Harper, C. A., Madison
Callan, P. L., Milwaukee	Evans, J. S., Madison	Harvey, James R., Footville
Carey, E. J., Milwaukee	Faber, C. A., Milwaukee	Havens, Fred Z., Waupun
Carter, R. M., Green Bay	Fairchild, R. J., Clintonville	Heffron, J. J., Milwaukee
Caswell, H. O., Ft. Atkinson	Falk, Victor S., Stoughton	Henke, W. A., La Crosse
Cavaney, James, Milwaukee	Farrell, A. M., Two Rivers	Henken, J. F., Racine
Chandler, F. E., Waupaca	Fazen, L. E., Racine	Herner, W. L., Milwaukee
Chapman, F. M., Milwaukee	Fellman, G. H., Milwaukee	Hicks, L. N., Burlington
Chapman, V. A., Milwaukee	Festerling, E. G., Reedsville	Higgins, S. G., Milwaukee
Christensen, O. A., Hawkins	Fiebiger, George J., Waterloo	Hipke, Wm., Marshfield
Coffey, C. J., Milwaukee	Finney, W. H., Clintonville	Hogan, J. H., Racine
Connell, D. R., Beloit	Fisher, Roland F., Wausau	Hogan, J. M., Oshkosh
Connell, F. G., Oshkosh	Fletcher, Wm., Salem	Hogue, G. I., Milwaukee
Constantine, C. E., Racine	Foerster, Harry, Milwaukee	Horn, A. S., Stoughton
Cooksey, R. T., Madison	Foerster, O. H., Milwaukee	Howard, M. L., Wauwatosa

- Hoyme, G., Eau Claire
 Hurd, H. H., Chippewa Falls
 Hutchinson, C. J., Kenosha
 Jackson, Arnold S., Madison
 Jenner, A. G., Milwaukee
 Jermain, Wm. M., Milwaukee
 Johnson, Ben F., Mondovi
 Jones, Richard W., Wausau
 Jordan, J. W., National Home
 Jorgensen, P. P. M., Kenosha
 Juergens, Louis W., Milwaukee
 Kastner, A. L., Milwaukee
 Kaunheimer, G. J., Milwaukee
 Kearns, Walter M., Milwaukee
 Keenan, H. G., Stoughton
 Keithley, J. W., Beloit
 Keland, H. B., Racine
 Kinne, Edward, Elkhorn
 Kirmse, Alvin, Milwaukee
 Kleinboehl, J. W., Milwaukee
 Knalif, N. J., Chilton
 Knauf, F. P., Kiel
 Knauf, G. E., Sheboygan
 Koch, Vincent A., Janesville
 Koehler, John P., Milwaukee
 Kradwell, Wm. T., Wauwatosa
 Kraln, G. W., Oconto Falls
 Kristjanson, H. J., Milwaukee
 Langjahr, Arno R., Milwaukee
 Langland, P., Milwaukee
 Layton, O. M., Fond du Lac
 Leahy, J. D., Butternut
 Leake, Chauncey D., Madison
 Leeson, Fred W., Beloit
 Lehnkering, C. F., Darlington
 Leonard, C. W., Fond du Lac
 Lettenberger, J., Milwaukee
 Levitas, I. E., Green Bay
 Lewis, Marian, Milwaukee
 Liefert, Wm. C., Milwaukee
 Lindsay, W. T., Madison
 Lippitt, S. H., Milwaukee
 Littig, L. V., Madison
 Lockhart, C. W., Mellen
 Longley, J. R., Fond du Lac
 Lotz, Oscar, Milwaukee
 Lynch, H. Meyer, Allenton
 Macdonald, W. H., Lake Geneva
 Mackoy, Frank W., Milwaukee
 MacLaren, J. B., Appleton
 Maechtle, E. W., West Allis
 Malloy, T. E., Random Lake
 Malone, F. A., Waterford
 Mandelos, N. A., Statesan
 Marek, Frank B., Racine
 Markson, S. M., Milwaukee
 Marshall, F. P., Fond du Lac
 Marshall, V. F., Appleton
 Mason, V. A., Marshfield
 Mauermann, J. F., Monroe
 Maurer, Albert A., La Crosse
 May, J. V., Marinette
 McCabe, Harry, Milwaukee
 McCabe, P. G., Fond du Lac
 McCann, Edith, Milwaukee
 McCracken, R. W., Union Grove
 McDonald, H. F., Hollandale
 McGrath, E. F., Appleton
 McGuinness, H. S., Medford
 McIntosh, R. L., Madison
 McMahan, F. B., Milwaukee
 McMahan, H. O., Milwaukee
 McMahan, J. P., Milwaukee
 McNaughton, W. T., Milwaukee
 Melaas, Wilbur G., Beloit
 Mensel, H. H., Oshkosh
 Mertens, H. G., Bayfield
 Mielke, E. F., Appleton
 Miller, Thomas, Oconomowoc
 Mitchell, R. S., Appleton
 Morten, R. E., Milwaukee
 Morter, C. W., Milwaukee
 Mowry, Wm. A., Madison
 Mudroch, J. A., Columbus
 Murphy, F. D., Milwaukee
 Myers, Elmer A., Superior
 Nauth, D. F., Kiel
 Nedry, C. J., Chippewa Falls
 Nesbit, W. M., Madison
 Neumann, W. H., Sheboygan
 Newell, Frank F., Burlington
 Newell, George W., Burlington
 Nicely, W. E., Waukesha
 Nichols, F. C., Wausau
 Nichols, W. F., Milwaukee
 Niland, Paul J., Milwaukee
 Nixon, H. G. B., Hartland
 Noble, J. B., Waukesha
 Nott, George W., Racine
 Noyes, G. B., Stone Lake
 Nuzum, Thos. W., Janesville
 Oberembt, B. H., Milwaukee
 O'Connor, W. E., Ladysmith
 Olson, Alfred L., Stoughton
 Ott, H. A., Dale
 Patek, A. J., Milwaukee
 Pegram, James W., Milwaukee
 Perry, Gentz, Kenosha
 Pirsch, Margaret V., Kenosha
 Pomainville, George, Kenosha
 Pope, Frank W., Racine
 Powers, John W., Milwaukee
 Pratt, George A., Appleton
 Prill, H. F., Augusta
 Pritchard, J. F., Manitowoc
 Puls, Arthur J., Milwaukee
 Purtell, J. A., Milwaukee
 Quick, Edward W., Milwaukee
 Raasoch, Haldan, Nelsonville
 Radloff, A. C., Plymouth
 Ragan, Wm. F., Milwaukee
 Rasmussen, A. T., La Crosse
 Raymond, R. G., Brownsville
 Reineck, Charles, Appleton
 Rice, F. A., Delavan
 Richards, C. A., Rhineland
 Richards, C. G., Kenosha
 Riegel, J. Arthur, St. Croix Falls
 Ripley, H. M., Kenosha
 Roberts, D. W., Milwaukee
 Roberts, Wm., Milwaukee
 Rogers, F. C., Oconomowoc
 Rogers, R. B., Neenah
 Rueth, J. E., Milwaukee
 Ruethin, K. A., Barron
 Ruhland, George C., Milwaukee
 Rundell, A. S., Beloit
 Ruschaupt, L. P., Milwaukee
 Sandborn, Manly J., Appleton
 Saunders, George, Superior
 Schaefer, Carl O., Racine
 Schlapik, Alexander, Milwaukee
 Schmeling, A. F., Columbus
 Schmidt, H. G., Milwaukee
 Schmit, Felix, Milwaukee
 Schmit, Louis, Milwaukee
 Schneider, C. C., Milwaukee
 Schneider, John F., Oshkosh
 Schneider, Joseph, Milwaukee
 Schnell, Wm. H., Superior
 Schram, C. F. N., Beloit
 Schuldt, C. M., Platteville
 Schwartz, A. B., Milwaukee
 Seelman, J. J., Milwaukee
 Seiberth, J., Lugerville
 Senn, U., Milwaukee
 Sexton, W. G., Marshfield
 Siekert, Hugo P., Milwaukee
 Simons, N. S., Whitehall
 Sisk, Ira R., Madison
 Sleyster, Rock, Wauwatosa
 Smith, J. Clyde, Beloit
 Smith, Joseph F., Wausau
 Smith, Karl W., Madison
 Smith, S. M. B., Wausau
 Smith, Thaddeus D., Neenah
 Spiegelberg, E. H., Boscobel
 Stack, S. S., Milwaukee
 Stamm, Leander P., Milwaukee
 Stemper, Irene T., Milwaukee
 Stoddard, C. H., Milwaukee
 Stoland, Iver, Eau Claire
 Stovall, Wm. D., Madison
 Stratton, F. A., Milwaukee
 Sullivan, E. S., Madison
 Sure, Julius H., Milwaukee
 Szlapka, T. L., Milwaukee
 Taylor, Allen R., Brodhead
 Tenney, H. K., Jr., Madison
 Tharinger, E. L., Milwaukee
 Thayer, F. A., Beloit
 Thorndike, Wm., Milwaukee
 Tibbitts, U. J., Waukesha

Toline, C. A., National Home
 Tompach, Emil L., Racine
 Towne, Wm H., Shiocton
 Turgasen, F. E., Marshfield
 Twohig, David J., Fond du Lac
 Twohig, J. Elmer, Fond du Lac
 Van de Erve, W., Milwaukee
 Ver Meulen, J. R., Waupun
 Ver Meulen, Peter, Madison

Voje, J. H., Oconomowoc
 Waldschmidt, W. J., Fond du Lac
 Walker, Lynn J., Merrillan
 Webb, Enoch P., Beaver Dam
 Wegge, Wm. F., Milwaukee
 Wenn, Julius F., Milwaukee
 Whalen, George E., Milwaukee
 Wiese, H. F., Eau Claire
 Windesheim, G., Kenosha

Wisioł, Erieh, Marshfield
 Wochos, F. S., Kewaunee
 Wood, F. C., Waupaca
 Woodhead, F. J., Waukesha
 Yates, C. A., Kendall
 Yates, J. L., Atwater
 Zaum, George F., Milwaukee
 Zwickey, W. H., Superior

Annual Mid-Year Sanatorium Conference Outlines Present Day Tuberculosis Problems

Mount Washington Sanatorium, Eau Claire, was the scene of the annual mid-year sanatorium conference, held June 7 under the auspices of the Wisconsin Anti-Tuberculosis Association. Nearly one hundred sanatorium physicians, superintendents, nurses, trustees, and other tuberculosis workers gathered at the Eau Claire county institution for the meeting.

The importance of the early diagnosis of tuberculosis and the need of a hardening-up process for the tuberculous patient before he returns to work were the subjects of paper by two of Mairdale's senior physicians, Drs. C. A. Allen and Lawrence Tully, who appeared on the program.

"To make an early diagnosis of tuberculosis is a classic piece of work," said Dr. C. A. Allen. "Tuberculosis has its inception in childhood and for this reason it is of the utmost importance that the disease be recognized early in life and given proper treatment." In giving a summary of his paper, Dr. Allen emphasized the following points:

(1) Primary tuberculosis is an involvement of the lymphatic glands, which determine the course of the disease;

(2) It has its inception in childhood, which would necessitate the importance of recognizing the disease early in life and giving proper treatment;

(3) Tuberculosis is easily treated and frequently cured in an early stage;

(4) Symptoms should not be treated before knowing the cause;

(5) Careful history should precede every physical examination, and both should be checked up by the proper laboratory analysis, including X-ray;

(6) Every case suspected of tuberculosis should be clinically observed over a period of at least two weeks by checking up on temperature and pulse morning and afternoon. Between two and

five p. m. tuberculosis patients will show a slight rise in temperature, most in the afternoon, slight remission towards night, and a complete remission by morning; and,

(7) A thorough physical examination includes inspection, palpation, percussion and auscultation with the patient stripped to the waist.

"Rest to the part affected is acknowledged to be the foundation of the treatment of tuberculosis," said Doctor Tully in his paper on "Methods of Hardening Up." "And rest to the lungs cannot be obtained without rest to the muscular and nervous systems. Unfortunately prolonged periods of rest induce the changes in muscle metabolism, muscle cells and fibre lose tone and undergo a certain form of disintegration. Just so attempts to bring about perfect mental rest results in changes in the nervous system, bringing about abnormal mental states with which we are all familiar—the so-called psychosis of the tuberculous. That a hardening process is indicated as an important therapeutic measure there can be no room for argument. However, if it is to be successful the means used and the time for application must be wisely selected. It is a medical problem most interesting, requiring a close study of the individual, both physically and psychologically and yet simple when once the right lead is discovered.

"For the febrile case hydrotherapy with light massage of the superficial tissues assists the venous circulation and helps to maintain the muscle tone. Especially to the patients, who react well to the cold showers, should hydrotherapy provide an important means for maintaining muscle tone throughout the whole course of treatment. Occupational therapy with its thousand and one resources will furnish just the proper mental occupation for the febrile case, quieting the nervous system and promoting rest to the affected lung tissue.

"Temperature up, patient down; temperature

down, patient up' is an old prescription in the treatment of tuberculosis. Much better 'patient down' until the promotion of the healing is well-established than a see-saw game until 'death us do part.' But there comes a time when a patient may be safely considered partially ambulant, and then walking as an exercise may be prescribed. It must be graduated to give the best results in the hardening process, and here, what we are pleased to call the 'cinder path' becomes a most desirable asset to every sanatorium. Winding its course through pleasing fields and woods, passing points of interest with ample provision here and there to rest awhile, the cinder path may be so graduated in distances, and the particular distance medically prescribed for each patient or group of patients as to provide a most accurate prescription in the hardening process. For the semi-ambulant and ambulant case occupational therapy will be gradually extended to adequately care for the mental factor.

"Our patient has now reached the beginning convalescent stage and we have reason to hope for full recovery. What is the next step in the hardening process? The introduction of games, such as croquet, clock golf, even golf itself over a short course would provide means of distinct advantage in the hardening process and would add a spirit of friendly contest to sanatorium life. Calisthenics, such as the setting up exercises of the army, is a suggestion well worth carrying out in selected cases. Horticulture, landscape gardening, care of chickens, animal husbandry, bee culture, etc., are all suggestions to be worked out as local conditions may permit.

"The advantages of using methods for hardening patients all through the course of treatment may be summed up as follows: (1) Intelligently selected and applied the hardening process may be begun during the early stages of sanatorium treatment as a distinct aid to recovery; (2) promotes contentment on the part of patients and increases the length of stay—the one essential to guard against subsequent relapse; (3) it fulfills one of the fundamental purposes of the sanatorium—that of returning to society a citizen better able to carry on as a self and perhaps a family-supporting citizen."

A plea that high class business men be employed to run hospitals, leaving the physicians free to concentrate on the medical side of the institution, was made by Colonel Charles Pearsall, governor of the

National Home for Disabled Service men, Milwaukee.

"For a number of years I have felt that successful hospital management can only be attained by a partnership, we may call it, of a skilled business executive and a skilled medical director," said Dr. Pearsall. "The best partnerships that exist today are made up of men comprising a group of minds covering a wide and varied knowledge of human, business and professional affairs. By his training in the arts and science of medicine the average doctor is not a business man. To expect it of him is asking altogether too much of one man, because no one man can handle two professions properly, and certainly business is one of the greatest and most skilled of any professions of today. If a doctor wishes to keep abreast of medical affairs and advance in his profession, or as many are eager to do, spend time in research work he does not have the time necessary to devote to business details, nor should he allow his line of thought to be sidetracked by them. In the modern hospital the professional and financial lines are sharply defined, each, however, dependent on the other to successfully function. The economic side of operation cannot be overlooked if you hope to continue a successful plant. I do not feel that it is right or fair to take a man who has spent a great portion of his life in specializing on medicine and the saving of human lives, and tie him down to a desk or to executive and business detail. In my opinion the modern and successful hospital of today must be one which is headed by the best physician available together with a first class and successful business manager."

The round table for physicians was devoted to a discussion of the benefits of heliotherapy in the treatment of tuberculosis. Several of the physicians present had attended a special heliotherapy clinic held at Glen Lake sanatorium near Minneapolis just previous to the Eau Claire conference.

The importance of follow-up work for tuberculosis cases after leaving the sanatorium was stressed at the opening session of the meeting, and the plan of the Wisconsin Anti-Tuberculosis Association for extending its follow-up system was outlined. The value of the new sanatorium law, which makes it possible for patients showing symptoms of tuberculosis to go to a sanatorium for observation, was discussed by Miss Edith Foster of the staff of the Association, who also outlined a program for new legislation. C. P. Thompson, a

trustee of the La Crosse County sanatorium, was appointed chairman of a committee on Legislation. Dr. Robinson Boswoth, executive secretary of the advisory commission, Minnesota sanatorium for Consumptives, described Minnesota's standardized system of financial bookkeeping for its institutions. The urgent need of providing more facilities for the care of tuberculous and pre-tuberculous children was stressed by Dr. A. A. Pleyte of the Wisconsin Anti-Tuberculosis Association. Methods used by the Eau Claire sanatorium in handling its business were described by H. F. Stern, a former patient, who now has charge of the business management of the institution. The promise of the co-operation of the State Board of Control in increasing the value of Wisconsin sanatoria was expressed by Mrs. Margaret Abels, one of the new members.

"Looking Backward a Moment and Forward a Year" was the subject of a talk by Dr. Hoyt E. Dearholt, executive secretary of the Wisconsin Anti-Tuberculosis Association, who declared that in the future the tendency should be to use the sanatoria more for the observation of suspicious cases, and for the care and treatment of those in the earliest and most curable stages of the disease. He emphasized the importance of summer camps for children in the invigorating air of northern Wisconsin.

"We expect to live to see a Wisconsin with tuberculosis completely controlled," was the statement of H. H. Jacobs, president of the Wisconsin Anti-Tuberculosis Association, one of the speakers at the evening meeting. "The fine spirit of co-operation throughout Wisconsin has made possible the great progress in our campaign against the White Plague. For the fight has enlisted all and in this campaign we find Catholics and Protestants, rough neck and high brow; society lady and servant maid; business man and the urchin that rings the doorbell and says: 'Would you save a life today? Buy a Christmas seal for a penny!'"

PAID MEMBERSHIP NOW 1785

The paid up membership of the State Society as of June 30, 1924, was 1785 as compared to 1808 on October 1, 1923. About 125 members are still listed as delinquent for 1924 so that when all have paid the total membership will go over 1900.

College luncheons are being arranged for the Green Bay meeting, August 20-22. Your college friends will be looking for you.

W. A. T. A. DATES ANNOUNCED

The dates for the annual meeting of the Wisconsin Anti-Tuberculosis Association have been set for October 30 and 31, and November 1. The meeting will be held at the Health Service building, Milwaukee, headquarters of the Wisconsin Association. The annual convention of the public health nurses of the state is set for the same week, the dates being October 28, 29 and 30, thus giving the nurses an opportunity to attend both meetings.

THE PATENT MEDICINE INDUSTRY

BY A. S. LOEVENHART, M.D.

BEFORE UNIVERSITY OF WISCONSIN MEDICAL SOCIETY

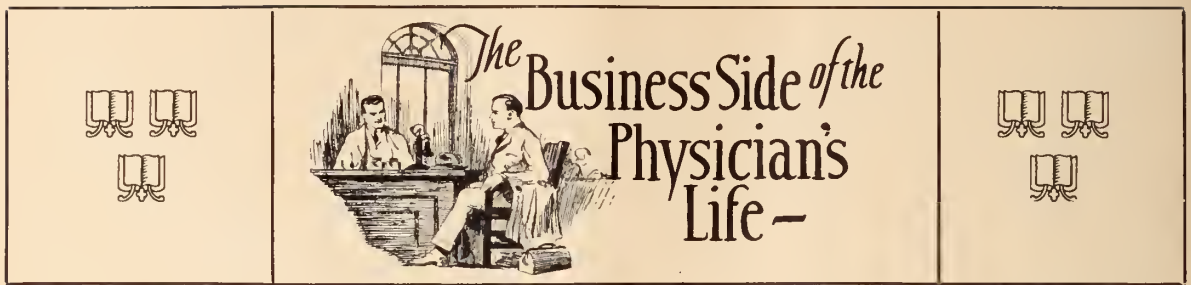
Dr. Loevenhart discussed the history of the use of drugs, stating that belief in a divine control, the obvious results of the bites of venomous serpents, and the influence of beverages that had undergone alcoholic fermentation, explained certain sources of efforts to relieve suffering. He divided the healing practitioners into three groups: (1) the spiritual healers who believed in no drugs, (2) the medical profession who based their use of drugs on their knowledge of their action, and (3) patent medicine producers.

Dr. Loevenhart discussed in some detail the ethics or lack of ethics in this latter connection, stating that the contents of bottles were unimportant provided the label sold the product. He emphasized the importance of testimonials and showed how this evil had grown and the commercial methods applied for its continuance. Slides used in this connection would be ludicrous were it not for the suffering entailed. He next showed how the passage of the Pure Food Law had led to a change in labels, modifying if not completely contradicting the intent of the original labels.

In conclusion Dr. Loevenhart stated that some of the obvious evils of the patent medicine industry were—easy wealth from the poor, pernicious advertising, and the suggestion or actual causation of illness. The slides shown in connection with this lecture were most illuminating and entertaining.

SECRETARY AT A. L. A.

Mr. J. G. Crownhart, Secretary of the State Society, spoke before a sectional meeting of the American Library Association held in Saratoga Springs, N. Y., on July first. Mr. Crownhart spoke on "Extension Library Service and The Physician."



During the Convention of the American Medical Association in Chicago recently, business taking me to Chicago for the week, and having some idle time on my hands, I wandered over to the Municipal Pier to see what my friends the doctors were interesting themselves in and thinking about.

I discovered that physicians in convention assembled look much like any other group of business or professional men gathered together. A few more sets of Van Dyke whiskers perhaps, and a larger number of benevolent looking gentlemen ready and willing to linger outside the convention hall for a minute of idle gossip. But there were all sorts and conditions, some who looked like bankers some who looked like farmers, and two or three, curiously enough, who looked as though they had rolled off the rods of a freight train that morning. Perhaps I'm misjudging them, probably these were not doctors at all, but uninvited onlookers like myself.

The exhibits, both the commercial and scientific, interested me immensely. I marveled, and this I often do, that any head could retain a knowledge and grasp of all the medical terminology that I saw about me in the scientific section. A marvelous thing is the human mind.

In the commercial exhibits I looked particularly for displays designed to aid the physician in the handling of his business affairs. Surely, thought I, there will be much to be learned in the methods that the physician employs in handling his routine business. Perhaps there was, though I couldn't find it, and left with the thought that the physician still continues to write the history of the daily call on his cuff.

Have physicians generally, adopted sound methods of handling their business? I know that in some cases, particularly among city practitioners good business systems have been installed, so that the patient receives his statement each month, and promptly, and the records of each

transaction are kept in systematic order. But is this general?

It should be. It is the patient's right. The "old school" method of accounting which physicians have been accustomed to, wherein the patient received a statement once in a blue moon is all very nice and ethical, but throws the load on the patient all at one time. The same bill split up into twelve monthly statements would seem very reasonable indeed, but rolled into one lump sum, if there has been much illness in the family during the year, it assumes proportions at times gigantic.

Remember this fundamental trait in human nature. Most people like to pay a bill all at once. To make a part payment is an indication of inability to pay the whole bill at the time, a confession that most people are unwilling to make. True the partial payment plan of selling merchandise would argue against this, but under this plan the arrangement is made before the transaction is closed and is so understood by both parties to the agreement.

The physician who sends his bill out only at long intervals has only himself to blame if the payments are made the same way—or not at all.

So if we agree that the patient has a right to expect a statement for services rendered at regular monthly periods, then in turn the physician has a right to have his statements receive the same respectful attention as are accorded the butcher's bills.

The butcher gets his money with reasonable promptness, or he stops sending the meat. That's just plain business with him. If the customer goes without meat, that's too bad but not the butcher's concern.

If the patient forgets to pay the physician's bill, the physician keeps right on coming anyway, which is right and proper providing the patient cannot pay. But if he can, and is only putting

you off to use his money for something else, you have a right to demand different treatment.

You gain much, and lose nothing, by demanding decent respect for your accounts. For one thing, you gain the patient's respect. He learns that your business methods are sound. It gives him confidence in your judgment.

If course you'll have some complaints, but don't let that throw dust in your eyes. The writer is connected with a business that has several thousand accounts in widely separated localities. One of the early things that we learned was that it didn't pay us, and it didn't pay our customers, to be too lenient. An old account is always harder to pay than a new one, for the merchandise or service has been used up or forgotten and it seems to the customer or patient as though he were paying for something very intangible. Better get along without the patient that will not pay his bills with reasonable promptness.

Get thy honest dues, that thy estate may be large in the land on the day when the parson chants the requiem over thy cold, drab bier.

GREEN BAY WAS BEAUMONT HOME

(Continued from page 110)

in relation to the exhibiting and showing of his Stomach, and the powers and properties thereof, and of the appurtenances, and powers, properties, situation and state of the contents thereof. It being intended and understood both by said William and said Alexis that the facilities and means afforded by the wounds of the said Alexis in his side and stomach shall be reasonably and properly used and the purposes of science and scientific improvements, the furtherance of knowledge in regard to the power, properties and capacity of the human stomach.

"And in consideration of the premises, and of the several matters and things by the said Alexis to be performed, suffered and done as aforesaid, according to the true intent and meaning of the premises, and on condition that the said Alexis shall and does perform the same on his part, according to the true intent and meaning thereof, and not otherwise, the said William Beaumont doth for himself, his heirs, executors and administrators covenant, promise and agree to and with the said Alexis by these presents that the said William shall and will at all times during the said term find and provide unto and for the said Alexis suitable, convenient rooms or house when with and in the service of the said William, and also defray the necessary expenses, and furnish the said Alexis good, suitable and sufficient subsistence, washing, lodging and wearing apparel when journeying with at the request and directions of said William. And also well and truly pay, or cause to be paid, unto the said Alexis, his executors and administrators, the just and full sum of one hundred and fifty dollars lawful money

of the United States of America in manner following, to-wit: the sum of forty dollars, parcel thereof, to be paid to said Alexis at or within one day after the execution of these presents, and the residue thereof, being one hundred and ten dollars, to be paid on personal application to said William, his executors or administrators at the expiration of the said term, which will be one year from the date hereof.

"In witness whereof, as well as the said Beaumont as the said Alexis St. Martin have hereunto set their respective hands and seals, the day and year first herein written, in the presence of each other and in the presence of Johnathan Douglas Woodward, Esquire, the subscribing Notary Public.

J. DOUGLAS WOODWARD,
THOMAS GREEN,
BENJAMIN T. MORRIS.'

"After repeated disappointments and delays his work on the physiology of digestion was published and so complete and accurate was it that little material additional knowledge has been made to the subject in the hundred years that have since elapsed. Even the X-ray has added practically nothing to his direct observations.

"The remarkable features in the life of this man are the utter lack of background and stimulus to original work. What he did was truly done from the genius which in him lay, and was done at a time when the impetus to original investigation in medicine had not been felt in this country. He had a truly open mind, one which was typical of our new country, and he showed a willingness to strike out on a new path. Many have attributed his discoveries to the fortuitous accident of Alexis St. Martin, but several similar cases had occurred, and nobody had seen or seized the opportunity until Beaumont dedicated his life to the task, as a duty that he owed to humanity."

It is safe to say that no future generation of physicians will add a greater glory to Wisconsin's history of achievement than that embodied in the tribute which Osler has given William Beaumont—America's first great physiologist.

PROPAGANDA FOR REFORM.

The Resistance of Malaria to Quinin. In 1917, reports began to appear that English soldiers in the tropics were being attacked by malaria that quinin would not cure. A report was published that quinin was ineffective in cases that were complicated by dysentery. An extensive study has demonstrated that quinin will cure malaria and that dysentery does not prevent the cure. In these cases the physician administered the quinin by mouth and made sure that it was swallowed. A study of the intramuscular injection of quinin demonstrated that necrosis of the muscle always occurred and that the absorption was less satisfactory than when the drug was given by mouth. It was shown that there was a profound fall in blood pressure when quinin was introduced intravenously, and one case of death and one case of serious sepsis were reported. It was also found that quinin is too irritating to be administered by rectum. (Journal A. M. A., April 5, 1924, p. 1125.)



THE JOURNAL BOOK SHELF

The Gall-Bladder. Its Past, Present and Future. The Mütter Lecture of the College of Physicians. By J. E. Sweet. *Int. Clinics*, Vol. 1, Series 34.

Progress in Chemotherapy and The Treatment of Syphilis. Editor, George W. Roizers, Ph.D., published by The Dermatological Research Laboratories—Philadelphia Quarterly.

The American Journal of Physical Therapy. The Professional Press, Inc., Chicago—Monthly.

Obstetrics for Nurses. By Joseph B. De Lee. Seventh Edition, 620 pages. Illustrated. W. B. Saunders Company, Philadelphia, London.

"The Health of a Neighborhood." John C. Gebhart, Director of Social Welfare, New York Association for Improving Condition of the Poor. A Social Study of the Mulberry District of New York City. Published and distributed by N. Y. A.I.C.P. Price, 25 cents.

The Biology of the Internal Secretion. By Francis X. Dercum, M.D., Ph.D., Professor of Nervous and Mental Diseases in the Jefferson Medical College, Member of the American Philosophical Society, Member of the Academy of Natural Sciences of Philadelphia. W. B. Saunders Co., 1924.

The Antidiabetic Functions of the Pancreas and the Successful Isolation of the Antidiabetic Hormone—Insulin. By J. J. R. Macleod and F. G. Banting. St. Louis: C. V. Mosby & Co., 1924. 69 pages, cloth. Price \$1.50.

The National Health Series. Edited by the National Health Council. 20 Vol., 18 mo. Flexible Fabeikoid. Average number of pages 70. Price per set \$6.00 net, per volume 30 cents net. Funk & Wagnalls Co., Publishers, New York and London.

Cancer: Nature, Diagnosis and Cure. By Francis Carter Wood, M.D., Director Institute for Cancer Research, Columbia University.

The Baby's Health. By Richard A. Balt, M.D., Gr. P. H., Director, Medical Service, American Child Health Association is especially valuable to the young mother.

Man and the Microbe. By Charles Edward A. Winslow of the Yale School for Medicine.

Personal Hygiene. By Allan J. McLaughlin, M.D., Surgeon United States Public Health Service.

Community Health. By Donald B. Armstrong, M.D., Sc.D., Executive Officer, National Health Council.

Handbook of Modern Treatment and Medical Formulary. Compiled by W. B. Campbell, M.D. Formerly Resident Physician at the Methodist Episcopal Hospital of Philadelphia. Seventh Revised and Enlarged Edition by John C. Rommel, M.D., and C. E. Hoffman, Ph.M. 693 pages. Cloth. Price \$5.00. F. A. Davis Company, Philadelphia.

Social Control of the Feeble Minded. A study of Social Programs and Attitudes in Relation to the Problems of Mental Deficiency. Stanley P. Davies, Ph.D., Ex. Sec. Committee on Mental Hygiene, New York State Charities Aid Association. Published by The National Committee for Mental Hygiene, Inc., 370 Seventh Ave., New York City. Price \$1.25.

The Anatomy of the Nervous System (2nd Ed.) By Stephen Walter Ranson, M.D., Ph.D., Professor Anatomy, Northwestern University Medical School. W. B. Saunders Company, Philadelphia and London.

Applied Pathology in Diseases of the Nose, Throat, and Ear. By Joseph C. Beck, M.D., F.A.C.S., Associate Professor of Laryngology, Rhinology and Otology, University of Illinois, College of Medicine. Cloth, 280 pages, 268 original illustrations including four color plates: C. V. Mosby, St. Louis, 1923.

New and Nonofficial Remedies, 1924, containing descriptions of articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1923. Cloth. Price, postpaid, \$1.50. Pp. 422+XXXIX. Chicago: American Medical Association, 1924.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

"The Circulatory Disturbances of the Extremities." By Leo Buerger. Published by W. B. Saunders & Co., Philadelphia.

An exhaustive scholarly work of 600 pages, discussing in a highly technical manner and in painstaking detail the entire field of the circulatory disturbances of the extremities from an anatomic, histologic, physiologic, etiologic, pathologic and prognostic standpoint. The work covers fully every consideration of the field except that of treatment, the discussions on which are comparatively brief. The work is well illustrated, especially as regards the plates of histologic and pathologic sections. Particular attention has been given the subject of thromboangiitis obliterans to which the author has devoted twenty-seven chapters of the book. It is essentially the report of a careful detailed study of the underlying structural functional and pathologic factors involved in the circulatory conditions of the extremities from the viewpoint of a specialist on his subject.

S. I. M.

Modern Urology. By Richard Cabot, M.D. Second Edition, Lea and Febiger, Philadelphia. Two volumes, \$18.00.

This second edition, like the first, consists of two volumes, and has as contributors, thirty of America's foremost Urologists.

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Specify Elixir of Enzymes, a palatable combination of ferments that act in acid medium.

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Elixir of Enzymes is dependable in disorders easily controlled if taken in time, but serious when neglected.

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Each contributor has written on a subject for which he is especially fitted, and many give not only their individual opinion about the subject in question, but quote extensively from American and foreign literature. With many chapters, there are excellent and lengthy bibliographies.

This work seems to fill a definite need for an up-to-date presentation of the various phases of Urology—which has advanced so much within the last few years as to make most texts obsolete—by men who are recognized as masters of their subjects.

I. R. S.

Obstetrical Nursing. By Charles Sumner Bacon. Ph.B., M.D. Published by Leo and Febiger, Philadelphia and New York, 1924.

This is a very simple presentation of obstetrics from a nursing standpoint. It is particularly good on prenatal and post natal care of the patient. It mentions only briefly those pathological conditions which concern the physician but nevertheless calls attention to symptoms of these conditions which are dangerous and should be reported at once to the doctor in charge of the case.

C. P. B.

Cosmetic Surgery—The Correction of Featural Imperfections. By Charles Conrad Miller, M.D. F. A. Davis Co., Philadelphia, 1924. Cloth, 263 pages, 140 illustrations. Price, \$4.00.

During and immediately following the late war, plastic surgery of the head received a new impetus. The shocking mutilations, largely from shrapnel, necessitated most delicate and skilful work on the part of the surgeon not only in the attempt to restore in so far as possible normal function but to achieve cosmetic results.

The truly remarkable work performed by the plastic and oral surgeon naturally has extended more and more to the correction of facial imperfections and deformities. As a consequence, such common operations as those for cleft palate and harelip now yield wonderfully good cosmetic as well as functional results.

This has led to the attempt, by certain class of surgeons, stimulated no doubt by the insistent demands of individuals, to correct featural imperfections, notably those incidental to advancing years.

From Dr. Miller's text one might gain the impression that almost any facial defect can be eradicated with comparative ease and gratifying cosmetic effect. His work would, perhaps, be convincing were the illustrations actual photographs instead of drawings. Careful search fails to reveal a single photograph of an end result.

W. A. M.

"Management of Diabetes." By George A. Harrop, Jr., M.D. 176 pages, cloth. Paul B. Hoeber, Inc., New York, 1924.

This volume epitomizes the teaching given by a staff of physicians under the auspices of Columbia University and the Presbyterian Hospital in New York during the autumn of 1923. The volume presents in a very simple and yet thoroughly accurate fashion the normal and the deranged metabolic processes which are involved in diabetes. The author has evidently kept in mind the

needs of the general practitioner in all these matters. Although the methods of handling cases involve the use of such valuable means as the determinations of blood sugar and alkali concentrations, the safe and adequate treatment without these desirable refinements is adequately presented. The occasion for this book is the revision of methods which followed the use of insulin. The use of insulin is well portrayed. In the chapter on acidosis the author recommends casually the intravenous use of sodium bicarbonate. The precautions ought to be stated. With this one exception the book can be most thoroughly approved and highly recommended to those general practitioners who feel the necessity for up to date information. The only substitute which is preferable is such a course of instruction as that on which the book is based.

The book contains a large section devoted to instruction in dietetics using the well known food tables, which are here reproduced in the very useful form that the Presbyterian Hospital has been using. The dietetic methods call for very few of the expensive and undesirable commercial food products prepared for diabetics. Many recipes are provided to supply the variety of foods which any prolonged case of diabetes always needs.

E. L. S.

Differential Diagnosis. Presented through an Analysis of 317 cases. By Richard C. Cabot, M.D., Professor of Medicine and Professor of Social Ethics at Harvard University. Volume 2, Third Edition, Revised. Octavo of 709 pages, 254 illustrations. W. B. Saunders Company, Philadelphia and London, 1924. Cloth, \$9.00 net.

The third edition of this well known volume is, in the main, a reprint of the second edition. The only revision that has been made consists in a slight modification and enlargement of 7 out of the 19 introductory discussions. The case histories presented and discussed, the illustrations and the diagrams remain unchanged in this edition.

J. E. G.

Pediatrics. Edited by Isaae A. Abt. Vol. 3. W. B. Saunders Co. \$10.00 per volume.

The first two volumes of Abt's Pediatrics indicated that the work was to be one of unusual excellence and in volume 3 one finds further and conclusive evidence that this is the fact.

All the subjects dealt with are covered in a very painstaking and thorough manner but the arrangement is such as to make specific information readily available.

A chapter by de Vries on Orthodontia gives a very clear account of the development of dental deformities and is beautifully illustrated.

In the chapter on the Nutritional Disturbances of Infants one can almost imagine that he is again listening to Dr. Abt's fascinating description of this subject.

Richter's chapter on the Surgery of the Gastro Intestinal Tract-Children is almost a text book in itself.

Other chapters that appeal as being of special value are: Diseases of the Nose and Para Nasal Sinuses by L. W. Dean and Pneumonia by Edward A. Morgan.

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After careful study, a complete detailed report with conclusions and suggestions for treatment will be submitted to the physician who refers the case.

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F. J. HODGES, M. D.
R. L. McINTOSH, M. D.

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JNO. M. CONROY, M. D., Res. Physician

Pathological Technique. Mallory and Wright. Eighth Edition. Revised and enlarged. W. B. Saunders Co., Philadelphia, 1924.

This well known manual of technique, without which no pathological laboratory is properly equipped, appears in new type and form and with revisions and additions which bring it strictly up to date. Special attention in revision has been given to the subjects of the technique of examination of the blood, of serum diagnosis, of spinal fluid diagnosis and of the nervous system. These revisions have been made by competent specialists in the several branches of technique.

The book is to be recommended as a sound investment for the laboratory worker. C. H. B.

A Critical Examination of Psycho-Analysis. By A. Wohlgenuth, D.Sc. (London). New York: The Macmillan Company, 1923.

All who have been interested in psycho-analysis should read this book. While it is the severest criticism of Freud's theories we have read, it is evidently written with every desire to be fair and just. The author contends that in truly scientific circles psycho-analysis has fallen absolutely flat. He believes that nowhere in the whole of Freud's writings is there a shred of proof, only assertions, and maintains Freud has shown an almost complete ignorance of the literature and the results of modern psychology, of experimental method and of logic. R. S.

The Treatment of the Common Disorders of Digestion. By John L. Kantor, Ph.D., M.D. Illustrated. C. V. Mosby Company, St. Louis, 1924. Price, \$4.75.

This is a most valuable handbook intended as a guide in the treatment of those forms of digestive disorder most commonly met. The diet lists given are those used at the Vanderbilt Clinic. It is a work which should be in the hands of every general practitioner. Every page is "practical." It is well printed and beautifully illustrated. The chapters on functional digestive disorders and on constipation are alone worth many times its cost. R. S.

The Conquest of Worry. By Orison Sweet Marden. New York: The Thomas Y. Crowell Company, 1924.

There is much that is good in this little work though it lacks in scientific exactness and is very evidently written for lay consumption. R. S.

An Intimate Portrait of R. L. S. By his stepson, Lloyd Osborne. New York: Charles Scribner's Sons, 1924. \$1.50.

This is a most delightful and interesting picture of Robert Louis Stevenson—new and more personal than any in many years. It is written by a member of his family—one who has lived and worked with the gifted author. Stevenson admirers will want this little work. R. S.

The Soul of Samuel Pepys. By Gamaliel Bradford. Boston and New York: Houghton Mifflin Co., 1924. \$3.50.

Some generations have now been delighted by Samuel Pepys and his famous diary is subject to daily quotation. Those who are familiar with it love it for its incomparable value as a human document. It is long

and tangled, however, and the present work of Mr. Bradford who has studied it for years will help to introduce to the reader a certain order and clarity which will be greatly appreciated. R. S.

Now That I'm Fifty. By Albert Payson Terhune. New York: Geo. H. Doran Company, 1924.

"Fifty" is a serious age to most people—especially the gentler sex—and as a psychological problem physicians generally pay too little attention to it. Here is a delightful little monograph on the subject. Read it yourself and "pass it on." R. S.

The Mind in Action. By George H. Green. New York. G. P. Putnam's Sons, 1924.

While this work deals with the dynamic conception of mind, the author has presented the subject in simple manner and has used none but common and every-day words throughout the book. He has written it to convey to the men and women one meets every day, the outlines of modern views of the human mind. It is readable, easily followed without the usual fearful groping about in an unfamiliar terminology, and is of very real value. R. S.

Mobilizing the Mid-Brain. By Frederick Pierce. New York: E. P. Dutton & Company, 1924.

Mr. Pierce, the well-known research worker and analytical psychologist, explains simply, in plain, untechnical language the relation which the unconscious part of our personality bears to the conscious part.

Also, he shows us the remarkable, practical applications which can be made of this knowledge, and that there is hardly any problem of personality or character which cannot be solved, or at any rate helped, by its means. In educating children, in controlling and operating one's own will, in creating personal energy, in eliminating worry, in forming good habits, it can do wonders; and even in business matters, such as management, building up an efficient production-organization, or laying out effective advertising, it is a vital factor in success. R. S.

Physical Exercises for Daily Use. By C. Ward Crampton, M.D.

Dr. Crampton's book marks an entirely new step in the field of good health. He is an advocate of a yearly physical examination. "You would overhaul your automobile, wouldn't you?" he asks. "Then, why not overhaul yourself?"

His conception of physical exercise is a wise one, to be employed as a prescription. His exercises may be freely prescribed by any physician. The author himself does not offer to make you a strong man or a contortionist. His sole aim is to put you into the maximum physical condition—a state in which it is possible to enjoy your work and your play, your sleep and your exercise. In short, to make of you a fine, smoothly working machine—a perfect specimen as nature intended you to be.

This is an unusual book on the subject. It's fun to read it and it's fun to follow it. To present what is usually a tiresome subject in that manner is true art.

R. S.

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ORIGINAL ARTICLES

RADIUM FOR NON-MALIGNANT GYNECOLOGIC DISEASES

BY THOMAS J. WATKINS, M.D.

CHICAGO, ILL.

The purpose of this paper would seem to be best accomplished by presentation of a brief summary of our experiences with radium and by recording some general observations upon the subject.

Total radium cases 1,050.¹

Disease	No. of Cases
Cancer	235
Uterine Fibroids.....	275
Hemorrhage at Menopause.....	170 ²
Leukorrhoea	180
Hemorrhages Idiopathic.....	70 ³
Miscellaneous	120
	—————
	1,050

1. *Leukorrhoea.* Its chief use here is in the treatment of chronic infections of the cervix. The beneficial effects from its use in these cases are chiefly the result of its action on the columnar epithelium. The radium changes the columnar epithelium into squamous or connective tissue cells and thus the drainage of the deep cervical glands is materially improved. Complete healing of the eroded surfaces, which are usually present, is almost certain to result. We have not used radium when special surgical indications obtained but for obstinate cases of cervical erosions and leukorrhoeal discharges. We have also occasionally used radium in conjunction with plastic surgery upon the cervix to insure cure of the leukorrhoeal discharges and repair of the erosion.

Technic. After thorough dilatation under gas

¹Read before the 77th Annual Meeting of the State Medical Society of Wisconsin, Milwaukee, October 4, 1923.

²From the service of Drs. Watkins, Curtis and Jones at St. Luke's Hospital.

³Some of the cases also had small uterine fibroids.

⁴This includes cases where radium was used in conjunction with plastic operations upon the cervix and vaginal walls.

anesthesia the radium, lightly screened, is fixed in the cervical canal. The dose being 100 to 200 mg. hours.

Results. We have used it in approximately 180 cases.⁴ The erosion has invariably healed, the discharge is always improved and has been cured in eighty per cent of cases. After such a treatment inspection shows very little change in the tissues until after six or eight weeks, then the discharge rapidly diminishes and the erosion heals.

2. *Uterine Fibroids.* Radium has quite a limited field in the treatment of uterine fibroids. The consensus of opinion is that it should be generally limited to the treatment of *uncomplicated*, symmetrically developed *intramural* fibroids not larger than a three or four months pregnancy, in women near the menopause. In younger women it is more logical to remove the tumor by surgery than to destroy the function of the ovaries with radium. Radium is of little or no use in the treatment of uterine fibroids unless sufficient is used to produce permanent amenorrhoea; that is, to stop ovulation. Although radium has a direct action upon the tumor cells, the tumor, in our experience, invariably grows and hemorrhages result if menstruation recurs.

In the use of radium for fibroids one should be *certain* of the diagnosis and also *certain* of the absence of complications, especially carcinoma and infections. Serious results have occurred where radium has been used in patients with chronic infections of the fallopian tubes.

Technic. The cervix is thoroughly dilated under gas anesthesia and a diagnostic curettage made to exclude carcinoma. Twelve to eighteen hundred mg. hours of radium, heavily screened, are administered within the body of the uterus. The size of the dose varying with the size of the tumor and the age of the patient.

Results. We have employed radium for uterine fibroids in 275 cases. Some nausea and vomiting generally result. The radium produces no pain and little or no constitutional disturbances aside from the nausea and vomiting. Occasionally nausea and vomiting are absent.

⁴This does not include cases where radium was used in conjunction with surgery.

Bleeding. We have had some five or six cases where there was considerable bleeding following radium. One and occasionally two menstruations may occur after the radium treatment before amenorrhoea results. Twelve hundred mg. hours in younger women will usually produce amenorrhoea which will persist for some eight or ten months.

Atrophy. The amount of atrophy which has resulted from radium treatment has been a continuous surprise. Generally there is no diminution in size of the tumor for three or four months, but after this time the tumor rapidly diminished in size and in the course of nine to twelve months in many of the cases the tumor has entirely disappeared or has become so small as not to be palpable. Occasionally in such cases small nodules, some half to one inch in diameter, persist for some time.

We have had two cases where the tumor instead of being absorbed underwent cystic degeneration and was excised. We have had some five or six cases where the treatment was repeated once.

There have been a few cases where some bladder symptoms have occurred six or eight weeks after radium was used and which were probably due to the radium.

3. *Uterine Hemorrhages.* The most delightful results obtained from radium in gynecologic cases are in the treatment of uterine hemorrhages at the menopause. These hemorrhages are probably due to endocrine disturbances. Radium is generally considered a specific treatment for such cases.

The technic is the same as for fibroids, except that 1200 mg. hours, double screen, is a sufficient dose. The double screening is used for the purpose of producing a minimum amount of action within the uterus and a maximum amount of action upon the ovaries.

The 170 cases treated have all been cured with one radium treatment. The neurotic disturbances following radium menopause and the natural menopause seem to be much alike, except they may not persist as long after radium as after the other. This may be due to the sudden and complete cessation of ovulation after radium treatment. We frequently use radium and at the same sitting repair a cystocele and rectocele and the results have indicated that the radium does not interfere with healing of the wound.

Radium should be used for hemorrhages in

younger women with great discretion on account of the deleterious effects upon the ovary and upon the fetus in case of pregnancy. There have been some cases reported where malformations have resulted where radium has been used in the early months of pregnancy and also where pregnancy has resulted soon after the radium was employed.

It is illogical to use radium as recommended for bleeding at puberty, as the bleeding in such cases is generally an endocrine disturbance and not the result of pathology in the uterus. The possible permanent injury to the ovaries in such cases has not been determined. In desperate cases of hemorrhage in the young, especially after the usual remedies have failed, one would seemingly be justified in using radium.

Radium should be used under the direct supervision of the clinician on account of the diagnostic skill required and the technical difficulties of knowing where, when and how to insert the radium. It would be difficult for any one to estimate the uses and limitations of radium and to adapt it to the treatment of pathological tissues without the knowledge which comes with handling of the remedy.

SUMMARY

1. Radium is a specific remedy for the hemorrhages of the menopause.
2. Radium is the remedy of choice for *selected cases* of uterine fibroids.
3. Radium will cure some 80 per cent of obstinate cases of chronic cervical erosion with leukorrhoea.
4. Radium should be used, with caution, in the young lest the ovaries be damaged and the fetus deformed in case of pregnancy.
5. Burns can be avoided, as with the x-ray, by care relative to dosage and screening.

ASK STRICT EUGENICS LAW

Sentiment in favor of a stricter eugenics law in Wisconsin was expressed at the annual meeting of the county clerks of the state held at Green Bay in July. Speakers on the subject urged that the examination be made more thorough and that it be extended as a requirement for both parties before a marriage license should be granted. It is probable that such a measure will be presented in the 1925 session of the legislature.

THE TREATMENT OF OVARIAN CANCERS WITH COMBINED SURGICAL AND RADIOLOGICAL METHODS*

BY HENRY SCHMITZ, M.D., F.A.C.S.

CHICAGO, ILL.

New growths of the ovaries are either clinically or histologically malignant. Ovarian tumors may not show on microscopic examination malignant cells, yet their clinical course may be characterized by ascites and implantation growths on the parietal and visceral peritoneum. The latter finally cause functional death of the peritoneum and death of the patient. The serous papillary cystadenomata are typical examples. About 25 per cent of these tumors and 2 per cent of the pseudomucinous cystadenomata show such a potentially malignant behavior.

The histologically malignant ovarian tumors are the sarcomata and the carcinomata. The latter are either primary or metastatic cancers. Cystadenomata and solid embryomata may undergo malignant degenerations.

Gurlt collected 947 ovarian tumors, that is, 8.5 per cent, among 11,140 women with tumors of all kinds. Ewing calculated the relative frequency of the different forms of ovarian tumors. He found cystadenoma, 55 per cent; carcinoma, 22 per cent; embryoma, 9.2 per cent; parovarian tumors, 8.4 per cent; sarcoma, 2.9 per cent; and fibroma, 2.5 per cent. Therefore, about 25 per cent of all ovarian tumors are malignant.

According to Zweifel the operability of ovarian carcinomata is about 33 per cent and the primary operative mortality is very high. It fluctuates between 10 and 50 per cent. The absolute cures are few. Hirsch states that 17 per cent after two years and 5 per cent after five years were free of recurrence.

Ovarian carcinomata are either solid or cystic. The solid growths are rare. The medullary type is predominant. The connective tissue frame work may be very insignificant. However, it may proliferate either in the fibrous or the cellular elements when it impresses one as a sarcoma. The entire ovary is usually included in the malignant process. We also see colloid and scirrhous or Krukenberg carcinomata. Cystic carcinomata resemble papil-

lary cystadenomata. One-half of all papillary ovarian tumors are carcinomatous. Ovarian carcinomata are almost always bilateral.

A premature cessation of the menses is seen in about 15 per cent of ovarian carcinoma. These tumors grow very rapidly. Ascites appears early. Intraligamentary and metastatic ovarian carcinomata are usually not accompanied by ascites. The others are almost invariably. The growth is destructive, infiltrates the surrounding tissues and regional lymphnodes invariably and the peritoneum by direct implantation of aberrant floating cell elements or through the blood and lymph streams. Adhesions to the adjoining abdominal organs occur early.

Recurrences after surgical removal amount to about 85 per cent in papillary and to 65 per cent in non-papillary cancers. Pfannenstiel observed 16.7 per cent four-year cures in papillary carcinomata and 77 per cent four-year cures in papillary cystadenomata. The absolute cures of surgical eradication in primary ovarian carcinomata are 14.64 per cent according to Kroemer. Recurrences are usually locally and only secondarily in the lymphnodes.

The malignant connective tissue tumors of the ovaries are bilateral in about one-third of the cases. The round cell sarcomata are the most frequent in the bilateral cases. Sarcomata are usually observed at puberty and the menopause, though no age is exempt. Ascites occurs in about two-thirds of the cases. The ovarian fibrosarcomata are relatively benign. Recurrences after surgical removal are seen during the first year after operation. The absolute cure is 30 per cent.

These considerations enable us to gain an idea of the malignant character of ovarian cancers and the unfavorable prognosis of treatment. A diagnosis between the different forms of ovarian tumors can only be rendered exceptionally. Cysts may be recognized by fluctuation, solid tumors by the firm consistency, malignant growths by the irregular, nodular shape. However, the malignant character of the growth cannot be positively diagnosed in the early stages. Ascites is seen in most of the ovarian tumors, malignant as well as benign. Infiltration of the neighboring organs as uterus, vagina, bowel and rectum, and rapid growth of the tumor are usually associated with malignancy.

The difficulty of the exact diagnosis of the type of an ovarian tumor necessitates an immediate

*Read before the 77th Annual Meeting of the State Medical Society of Wisconsin, Milwaukee, October 4, 1923.

exploratory laparotomy. The size of the tumor should not alter this axiom. Contraindications to surgical interference are offered by intercurrent acute and chronic disease of the lungs, the circulatory system, the kidneys, diabetes melitus, senile marasmus and so forth. Vaginal coeliotomy is absolutely contraindicated. The surgeon must decide the proper operative procedure after inspection and palpation made through the laparotomy incision.

The cases may be divided into three groups: the localized, the doubtfully localized or borderline and the clearly inoperable cases. The localized malignant ovarian growths indicate a panhysterectomy. The borderline cancers that may have a beginning infiltration of adjacent tissues require an incomplete operation. The cancerous tissue is removed to the greatest possible extent. The uterus is preferably left behind. The clearly inoperable cancer, of course, cannot be dealt with surgically. Such tumors have extensive adhesions to the visceral or parietal peritoneum or infiltrate the regional lymphnodes extensively.

The absolute cures after panhysterectomies for ovarian malignant growths are few in number; the borderline cases are invariably followed by early recurrences, while the inoperable cases are, of course, absolutely hopeless. We, therefore, have instituted in our clinic a post-operative radiation treatment for the three groups of cases. The panhysterectomies are followed by an intensive short-wave length x-ray treatment. The object is to apply a 130 per cent erythema skin dose homogeneously through the pelvis.

The incomplete operations and the inoperable cancers are treated with the combined method of radium and short-wave length x-rays. Fifty milligrams of radium element are inserted intrauterine until 3600 to 4000 mg. el. hrs. have been applied. The x-rays are applied to two, three or four fields depending on the size of the patient, to obtain a 130 to 150 E. S. D. all through the pelvis.

Serous papillary and pseudomucinous ovarian cystadenomata causing ascites and transplantation growths in the visceral and parietal peritoneum should be treated the same as the cancers.

The following case reports illustrate the procedure as well as the results of the combined surgical and radiological treatment.

Mrs. M. G., age 42, widow, O-para, was admitted August 24, 1921, complaining of rapidly

progressing enlargement of the entire abdomen and severe pressure pain. Physical examination revealed large, firm masses in the pelvis which were adherent to the pelvic walls and uterus and extended upwards to the level of the iliac crests. A laparotomy was performed the next day. The ovaries formed large solid masses. The left one was the size of a child's head. The growths had invaded the adjacent tissues and organs. The liver was invaded with multiple nodules. There was considerable hemorrhagic ascites. Many nodules were found scattered through the visceral and parietal peritoneum, even in the peritoneum of the liver. X-rays taken before the operation did not show metastasis in the bones or lungs. Microscopic examination revealed an adeno-carcinoma. The case was considered inoperable.

Within six weeks the ascites had reformed to the same extent as on admission. On October 5th a paracentesis was done. One hundred milligrams of radium element were inserted intrauterine for 40 hours. From October 7th to 11th four x-ray treatments were given—two fields 15 by 20 cm. were used anteriorly and two fields posteriorly. Thus, the entire abdomen was covered. The factors were 140 kilovolts, 0.5 mm. copper plus 1 mm. aluminum plus 6 mm. soleleather filters, 65 cm. focus skin distance, 5 milliamperes and 210 minutes to each field. This was a 130 per cent skin dose; the intensity at 10 cm. was 48 per cent, i. e., 37 per cent of a 100 per cent E. S. D. The antero-posterior diameter of the patient was 23 cm., the transverse diameter 40 cm. Hence the combined depth dose of radium and x-rays was 156 per cent.

November 28, 1921, patient presented herself with an abdominal ascites and a McDill lymphangioplasty was performed. When the patient returned for examination on January 23, 1922, the fluid had become entirely absorbed. The patient had gained weight and strength and resumed all the duties of her daily life. The ovarian tumors which reached up to the umbilicus were now contained within the true pelvis. Uterus, adnexa and ovarian tumors were freely movable. The surfaces were smooth.

September 27, 1922, patient reported a gain of 50 pounds in weight. An examination made November 13, 1922, revealed the uterus and ovaries negative on palpation.

At the present writing the patient enjoys perfect health and capacity for work.

Mrs. J. Z., age 29, married, 6 para, entered hospital on account of a dull aching pain in left pelvic region of two months duration, gradually increasing and painful menstrual flow and loss of weight and strength. The pelvic cavity revealed on bimanual palpation a fixed and firm irregular mass. An operation was performed January 17, 1922, which exposed a mass involving uterus, adnexa, bladder, sigmoid and omentum. The condition was clearly inoperable. A microscopic examination of excised tissue from the omentum showed an adeno-carcinoma of probably ovarian origin.

From January 24th to 30th inclusive, four x-ray treatments were given over the suprapubic and sacral regions and right and left buttocks with the same factors as described in the previous case.

On February 26, 1922, the uterus was plainly palpable, in anteposition and somewhat movable; the adnexa were thickened and fixed; rectal examination revealed an induration of the parametrium.

On June 20, 1922, patient presented herself for re-examination stating that her condition had again become rapidly worse during the last four weeks.

July 21, 1922, a second laparotomy was performed and adnexa and corpus uteri were removed. The ovarian vessels were ligated, the uterine vessels were clamped. The clamps were removed 48 hours later. Microscopic examination showed solid adeno-carcinoma of the ovaries.

From August 21st to 25th inclusive, four x-rays were applied to the suprapubic and sacral regions and right and lateral buttocks. The factors were 200 Kilivolts, 1 mm. copper plus 1 mm. aluminum filters, 50 cm. focus skin distance, 5 milliamperes, size of fields 15 by 20 cm., time duration of application to each field 120 minutes, which is a 100 per cent skin dose; the depth dose at 10 cm. is 42 per cent. As the antero-posterior diameter was 18 cm. and the lateral diameter 29 cm., the combined intensities in the center of the pelvis were 138 per cent of a full skin dose.

August 26th fifty milligrams of radium element were inserted intracervical for 48 hours. The patient had the usual radiation sickness, but recovered rapidly.

December 2, 1922, patient presented herself for examination. She had regained **her full weight**,

working capacity and enjoyment of life. Examination revealed an induration of the recto-vaginal septum. Otherwise the pelvis appeared to be normal. This condition has continued to date.

Miss M. H., age 56, single, schoolteacher, entered hospital on February 17, 1922, complaining of a tumor mass of three months' personal knowledge and uterine hemorrhages for last eight days; loss of appetite, weight and strength for last three months. Menopause occurred at 45 years. On examination the uterus was found to be of normal size but fixed. A large tumor was felt to right of uterus filling the left half of pelvis and reaching upward midway between symphysis and umbilicus. The growth was smooth, hard, and fixed firmly to the surrounding tissues and uterus. The patient refused operation and roentgen therapy. Therefore, 50 milligrams of radium element were inserted intrauterine and left for 72 hours. The bleeding stopped and patient seemed to regain appetite and strength. However, within two months her condition had again become worse. Pain in the right pelvis was excruciating; the tumor was increasing rapidly in size; and the right inguinal lymphnodes were palpable. The patient now consented to an operation which was performed on April 25th. The right ovary was adherent all around. However, it was easily separated from the surrounding tissue and removed with uterus and left adnexa. The anterior abdominal wall had apparently been involved by continuity just above Poupart's ligament. The patient made an uneventful recovery. The microscopic examination revealed a small spindle celled sarcoma.

From May 10th to 13th inclusive, two x-rays were applied with the same factors as last described, except that the size of the suprapubic field was 15 by 20 cm., and over each buttocks 15 by 15 cm. The time duration was 90 minutes to each field. Since the antero-posterior diameter was 18 cm. and the transverse diameter 30 cm., the combined dose in the deep of the pelvis was about 120 per cent E. S. D.

The patient regained health and strength rapidly and has attended to her professional work ever since. She is now in perfect health. The induration in the anterior abdominal wall and enlargement of right inguinal lymphnodes have disappeared.

CONCLUSIONS

1. Operable ovarian cancers must be removed by an abdominal panhysterectomy and the operation followed by short-wave length x-ray therapy.

2. Inoperable ovarian cancers should be subjected to operation and the tumor masses removed if removal is at all possible. The incomplete operation as well as the clearly inoperable cases must be treated with the combined method of radium and short-wave length x-ray therapy.

3. Radiation therapy often causes an arrest of the growths, frequently even resolution with apparently normal bimanual findings and subjective well being lasting for years.

4. Serous papillary and pseudomucinous cystadenomata with ascites and peritoneal implantation growths should be treated the same as ovarian cancers.

END RESULTS IN THE TREATMENT OF CARCINOMA OF THE CERVIX

BY ROLAND S. CRON, M.D.,

MILWAUKEE

A review of the end results of any and all methods of treatment, even though the end results are far from desirable, must be considered, from a practical standpoint, worthy of publication. For that reason the writer feels justified in reporting as completely as possible the outcome of the patients suffering from carcinoma of the cervix uteri who were examined and treated in the department of obstetrics and gynecology at the University of Michigan during the years 1902-1920.

Three hundred and eighty patients with cervical carcinoma were admitted to the clinic for diagnosis. They were clinically classified in two groups either as early carcinomata, where the lesion was localized to the cervix, or advanced, where the involvement had extended to the vagina, bladder, rectum or outward into the parametrial regions, sacro uterine ligaments or lymph glands. In eighteen years only 60 cases were seen which could be classified as early cervical carcinoma. The remaining 320 were judged far advanced or at least inoperable from the standpoint of performing the radical Wertheim operation. This conclusion was reached by means of the patient's history, careful bimanual and rectal palpation and occasionally by inspection and palpation after the abdomen was open.

At present we shall confine ourselves to a study of the ultimate fate of this very large group of most unfortunate women. Approximately one-half of them underwent some form of treatment. In the history of medicine it seems that the more unsatisfactory the treatment, the more varied are the methods of combatting the disease. History has repeated itself in the case of cervical cancer. In looking over the records it was found that ten or more agents have been used in attempting to destroy the disease which later destroyed the host.

During the early years zinc chloride packs in and against the cervix were a favorite method of attack. Later excision of the cauliflower mass and curettage followed by cautery were favored, then cautery alone and finally Percy's much heralded technic of cauterization guiding the procedure by means of an assistant's hand in the abdomen. Since then the acetone treatment has been tried and more recently x-ray therapy. Unfortunately during the period covered by this report radium was not available for patients treated in the University hospital.

In order to ascertain the result of treatment on those patients lost track of during the many years this report covers, 165 questionnaires or follow-up letters were sent to the referring physician or immediate relative. Even after repeated attempts to learn of the affect the treatment may have had on the course and progress of the disease it was not possible to do so in more than 85 individuals.

An analysis of these cases showed that the cervical carcinoma was, in the vast majority of cases, of the squamous cell type. The age incidence varied from the youngest of 25 years to the oldest 82 years with an average of 46½ years.

Treatment	Number of Cases	Length of Life after Treatment Average	Limits
Curettage & Zinc Chloride Pack	10	4.5 Months	1-12 Months
Curettage, Cautery & Zinc Chloride Pack	4	6 Months	2-14 Months
Curettage, Cautery & Formalin Pack	3	3.3 Months	1- 8 Months
Percy Cautery (with laparotomy)	25	9.2 Months	0-36 Months
Curettage & Cautery	35	13.1 Months	.5-44 Months
Cautery	6	15 Months	3-48 Months
Curettage Only No. 528	1		91 Months

Case so early in series must be discredited.

One patient had panhysterectomy following cautery which accounts for total of 85.

Of 41 treated by cautery, 12 were re-cauterized at least once or twice.

Of 25 treated by laparotomy and cautery, seven had been previously cauterized.

Every patient excepting one eventually died directly or indirectly from the uterine malignancy. This one exception is a patient 60 years old, who is alive and in good health three years and eight months after the excision of the cancerous tissue and cauterization of the cervix. It is apparent that of all the palliative measures used during eighteen years of treatment the best results were obtained by means of the actual cautery. Excision of as much of the cancerous mass did not lengthen the period of relief. Neither were the results improved upon by adopting the method advocated by Percy.

At this point it seems to me well worth while to report the case of a patient cauterized by the Percy method:

Case Gyn. No. 4773. The woman was 46 years old and had symptoms of cancer of the uterus for the past two years. In view of that history and the fact that bimanual and rectal examination showed thickening in the parametrium and some fixation of the uterus, it was deemed advisable not to attempt the radical removal of the uterus but instead to perform a palliative operation. However, in order to make absolutely sure of the extent of the carcinomatous metastases the abdomen was opened and the lymph glands palpated. Enlarged glands were found along the internal iliac vessels and the parametrial regions were considerably thickened. These findings confirmed our first impressions of advanced cervical cancer. The burning of the cervical tissue was then directed by the assistant's hand in the abdomen. Subsequently the patient developed a facial erysipelas, then a popliteal phlebitis followed by suppuration. She died three and one-half months after the operation. The autopsy report was as follows: "No gross signs of malignancy. The broad ligaments and lymph glands reduced in size. Microscopically all retroperitoneal lymph glands were free of cancer cells. However, in the wall of the uterus beyond the area of necrosis were nests of living carcinoma cells."

This one case illustrates many things. First, even under the most favorable conditions the heat from the actual cautery cannot destroy all of the

cancer cells. Second, what was thought to be extension of the cancer to the lymph glands was only an inflammatory reaction. It is probable that if this patient had been treated with radium and deep x-ray therapy the cancer cells would have been destroyed or at least incapsulated. The mistaken opinion of the lymph glands which prevented this patient from deriving the benefits of the radical operation would not have been a factor in the ultimate disastrous outcome.

Excepting for temporary relief from the profuse and foul discharge and frequent bleeding the various methods of palliative treatment mentioned above, have proved, in our hands, generally ineffectual in the treatment of cancer of the cervix.

This essay would not be complete unless further consideration were given to the group of cases where the malignancy was found confined to the cervix. Peterson, in 1920, reviewed the end results of the 60 cases of early carcinoma treated by the radical abdominal operation. It is most gratifying to be able to quote from his figures that 40.9 per cent, or 18 patients, are living and well five or more years after operation. There is a very high primary mortality of 26.6 per cent, due to shock with and without hemorrhage. It is the writer's opinion that this high primary mortality has been reduced during the past few years by more careful selection of cases and great familiarity with the operation. There were 14 recurrences, nine within the first two years after operation. Even in view of the high primary mortality and recurrences Peterson is able to show that 60 per cent of the patients surviving the operation were permanently cured.

When one considers, however, the end results of all cases of cancer of the cervix seen in the clinic one finds that only 5 per cent or 19 out of 380 women were cured. No wonder the great horror and fear women have of this disease.

For some years radium and, more recently, x-rays have been used in the treatment of all types of cancer. Excellent results with radium have been reported by Bailey and Healy, Clark and Keene, Curtiss, Watkins, Jones and many others. Deep x-ray therapy in the hands of Zweifel, Doderlein, Wirtz and some of the American radio-therapists has proved just as satisfactory. In a preliminary report by Hasley from the Department of Roentgenology, University of Michigan,

favorable results in the treatment of advanced cervical cancer have been obtained. The writer can do nothing better than to quote his conclusions:

(1) "Deep x-ray therapy properly given reaches malignant tissues beyond the reach of radium and surgery. When used alone or supplemented with radium treatment malignant growths have been arrested for a period of five years or more.

(2) "The percentage of four and five year cases of cervical and uterine malignancies following deep x-ray therapy as reported by some of the early European radio-therapists places high voltage therapy as an agent on a par with surgery. In fact the statistics show that x-ray without surgery gives a higher percentage of cures than surgery without deep x-ray.

(3) "In cases with a hopeless prognosis, deep therapy lessens pain, frequently checks excessive hemorrhage and foul discharge.

"Many patients who are considered poor operable risks before treatment is instituted improve to such an extent that the classification is frequently changed from inoperable to operable."

In radium and deep x-ray therapy we have an agent just as effectual as the actual cautery. It not only stops the uterine discharge and controls the bleeding, but it also lengthens the life of the patient. Considering the small percentage of cervical carcinomata favorable for the radical abdominal operation, it is the writer's opinion that this method of treatment bids fair to supplant all others. Whether or not radium and x-ray without surgery in the borderline cases gives higher percentages of cures than radium and x-ray alone is still a much disputed question. In very early cervical carcinoma the surest cure may be obtained by a radical removal, but the great difficulty is in knowing when the lesion is sufficiently limited to be able to remain entirely outside of the cancerous tissue.

SUMMARY

(1) The life of women with advanced carcinoma of the cervix treated by packs or actual cautery is not materially lengthened although the vaginal discharge and bleeding may be temporarily relieved.

(2) The percentage of cures in women with early carcinoma who survive the radical abdominal

operation is favorable. However, when one considers all cases of cervical cancer the results from surgery alone are most discouraging.

(3) Deep x-ray therapy by high voltage gives excellent palliative results and has replaced surgery in advanced cervical carcinoma.

(4) Radium and x-ray should be used in all cervical cancer.

(5) Whether radium, x-ray and surgery combined in early cancer will give better end results than radium and x-ray alone is still a disputed question. Experience with these over a long period of time only will tell.

(6) Publicity and propaganda have not materially influenced the incidence of early and late cervical cancer.

In conclusion, I wish to thank Dr. Reuben Peterson, Professor of Obstetrics and Gynecology at the University of Michigan, for the privilege of using the records of his department in the preparation of this essay.

CANCER FROM THE STANDPOINT OF THE OTOLARYNGOLOGIST*

BY FRANK J. NOVAK, JR., M.D.

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A chronology of the development and progress of cancer research in otolaryngology would, indeed, be appropriate and interesting. In fact so much has been said and written within the past decade that a special paper would be necessary to present, even a brief resume, of the various contributions to the literature. For obvious reasons, this type of an introduction is omitted. For the same reasons, an histological consideration of tumors of the upper respiratory tract must also be avoided. This study, in itself so enormous, requires such detailed discussion, that one could not do justice to it unless much space was allowed for this purpose. Therefore, while fully cognizant of the great importance attached to the laboratory side of the subject, my aim at this time is not to enter this field, nor to consider this subject in the broad sense implied by the title allotted to me, but rather to confine myself to an account of my

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experience and study with malignant growths of the larynx.

The most common and frequently occurring type of cancer of the larynx is the squamous cell carcinoma. It is found most often in the male. Statistics vary in giving the relative percentage of occurrence as to male and female. The figures 3 to 1, 5 to 1, 20 to 1 are mentioned. I am inclined to believe that the proportion of 50 males to one female is more nearly correct.

In a recent paper entitled "Carcinoma of the Larynx," Jackson speaks at length of the pre-cancerous conditions. The use of the word "pre-cancerous" is perhaps open to criticism from an etymological as well as from a histological standpoint. Jackson's clinical experience with cancer of the larynx leads him to conclude that cancer rarely, if ever, appears in the previously perfectly normal larynx. And this same writer continues "the chief objection to the term 'pre-cancerous' is that it will be loosely applied without a true anatomic basis, hence it is unscientific; but if it supplies the need for a word that will contribute to the education of the profession and the laity to the undoubted clinical fact that there is a class of morbid conditions in the larynx, the cure of which will diminish the incidence of cancer, the use of the word is justified until some one suggests some other single word that shall serve the same life-saving purpose."

Jackson defines the term "pre-cancerous" "as any histologically abnormal condition intervening between the normal and the cancerous." He believes that it will not be disputed that such a condition exists, "though there is room for widely differing views as to its frequency, because of the difficulties of its determination in any given case.

"Fundamental to the acceptance of the view that there is a pre-cancerous condition is the acceptance of the view that repeated injury and long continued irritation and inflammation are potent causes of cancer. Present limits preclude consideration here of the evidence on this subject. Any one who is unwilling to accept this view is referred to the overwhelming evidence presented and ably analyzed by Coplin."

What are the etiological factors in the production of this pre-cancerous condition? There is, perhaps, no organ in the body which is subjected to more abuse than the larynx. This is not only true in those individuals whose occupation

demand an excessive use of the voice. It is true of every one. Singers, peddlers, hucksters, factory foremen, construction men, etc., place an abnormal strain upon their larynges. Most of us in other occupations use the larynx without mercy. We are rarely alone, and in the company of others our voices are rarely still. Consider the dust and the fumes and smoke-laden atmosphere, which we breathe. It is readily understood that the larynx of the average person is open to constant irritation and insult. Constant and excessive irritation of the larynx predisposes and is the active cause of chronic simple laryngitis; itself a potentially cancerous condition.

It is recognized generally that the tonsils are the fountain head of a majority of the chronic inflammatory diseases of the larynx. If chronic inflammation of an organ, subjected to so much abuse as the larynx, is considered a pre-cancerous condition, then diseased tonsils may be considered a possible etiological factor in the causation of cancer of the larynx. However far-fetched it may sound, I believe that the removal of diseased tonsils in an individual of cancerous age, should be considered as a prophylactic procedure in the prevention of a possible development of a cancer of the larynx.

There is abundant authority to support the view that syphilis of the larynx may be a pre-cancerous condition. This is also true of keratosis of the larynx. In speaking of syphilis, Coplin says: "My thought is that the infection bears an etiologic relation because it is manifested by a reaction of irritation and not because there is what, under other conditions, might be regarded as any specific connection, between the tubercle bacillus, the treponema, blastomycetic fungus, various diphtheroids, cocci or other organism, and the new growth. In a manner resembling, but quite clearly different, the microorganisms in some way liberate one or more toxic substances which irritate, frustrate repair, and lead to a lawless cellular proliferation similar to that following the continued irritation produced by soot, tar, pitch paraffin or other substances possessing allied possibilities, and the irritation accompanying certain animal parasites. In this connection it is interesting to note that no infective process exclusively or even largely suppurative tends to tumor formation. The cytologic reaction in purely suppurative lesions, such as abscesses, is not

reparative, it is protective; repair follows, and only when repair is constantly frustrated does the tendency to neoplastic evolution become manifest."

There are two types of carcinoma of the larynx, the intrinsic and the extrinsic. The site of origin of the majority of intrinsic cancers is on one of the vocal cords. It may arise also from the ventricular bands and the ventricle of Morgagni. The extrinsic cancer may arise from the epiglottis, the pyriform fossa or from the aryteno-epiglottidean ligaments. The lymphatic supply of the larynx below the cords is relatively small, while that above the cords is extensive. The tumor below the cords tends to metastasis slowly, while that above the cords tends to involve the regional lymph glands with relative rapidity.

The diagnosis of carcinoma of the larynx depends upon an analysis of the laryngoscopic picture, the laboratory findings, the history and the symptoms, with the greatest emphasis upon the laryngoscopic findings. Given an individual of cancerous age with a history of chronic laryngitis, hoarseness of varying degree, either constant or intermittent, the possibility of a carcinoma should be strongly considered. The characteristic laryngoscopic picture is the presence of a tumor mass of varying size involving frequently the middle third of the cord or the pyriform fossa. There may be a mere thickening and immobility of the cord. The usual serologic and bacteriologic examinations will serve to differentiate it from a syphilitic lesion or tuberculosis. The character of the cervical adenopathy, if it be present, will help to differentiate the type of lesion.

The question of pain is sometimes a source of confusion. A carcinomatous lesion of the larynx, even when well advanced may cause little or no pain. Frequently, however, this pain is severe. It may radiate to the ear and become aggravated by deglutition. Cachexia is usually a late symptom.

In diagnosis the value of an histologic examination of a specimen of tumor from the larynx can hardly be over-estimated. And yet, even this apparently valuable and certain diagnostic aid is not always to be relied upon. Much discussion in this connection has been heard from time to time. Doubtless many of you remember the experience of Bloodgood, who, some years ago, submitted to a number of eminent pathologists a series of sections of a tumor. It is exceedingly interesting to know that there was a startling lack of

unanimity in the histological diagnoses reported as to the malignancy or benignity of the specimens. Many of us undoubtedly have had similar experiences. The point is obvious: a histro-pathological diagnosis is of the greatest value only when it is correlated with clinical findings. Another important fact which must not be overlooked is the risk of dispersion of metastases in the procedure of excision of a specimen.

Since the microscopic study of a specimen then is by no means the infallible diagnostic procedure that some would make it, and since the removal of the specimen is attended by grave possibilities, there are those who would dispense with the aid of the microscope and depend solely upon the clinical study. A compromise, however, is possible. By searing over the cut surface of the tumor, immediately, the dangers of the procedure are obviated and the clinician gains the valuable information which can be obtained from the frozen section.

The operator is sometimes placed in a quandary when the clinically diagnosed lesion is definitely malignant and the microscopic report is to the contrary. The author follows the dictum of the noted syphilographer, the late Dr. Zeisler of Chicago, who said in speaking of syphilis, "when the Wasserman agrees with my diagnosis, it is right; when it does not agree, then I am right."

Jackson remarks on this very point, thus: "I believe every laryngologist of large experience can recall cases in which he regrets that he had not followed his undefined and undefinable feelings as to present or incipient malignancy in cases reported as histologically benign; and while it can, of course, in most instances be maintained on good grounds that there was malignancy in some unexamined portion, yet the clinical fact remains that had the laryngologist followed the guidance of an intuition born of clinical experience, the patient's life would have been saved. Just what constitutes the appearances in a laryngeal lesion that gives rise to a subconscious feeling of incipient cancer is difficult if not impossible to describe."

The treatment of carcinoma is prophylactic and active. If it be recalled what has been said regarding the so-called precancerous stage of the larynx, the prophylaxis of the larynx is relatively a simple matter to understand. It consists of the elimination of the causes of chronic irritation. Those individuals whose occupational over-use of

the voice is unavoidable, should be taught proper vocalization. Periodical absolute rest of the voice in this case is very desirable. When there is a tendency to chronic laryngitis, absolute vocal rest is imperative. The elimination of the sources of chronic infection of the larynx, such as chronic suppurative posterior para-nasal sinus disease, and the removal of diseased tonsils in persons of cancer age is not a matter of negligible importance. The importance of proper management of syphilitic diseases of the larynx needs no emphasis.

Malignant tumors of the larynx are now generally treated surgically and by radiation. It is my belief that cancer of the larynx is not a surgical problem at all. It is an axiomatic principle of surgery that the removal of a tumor must include also the removal of the regional lymphatic structures. Now it is mechanically impossible, because of anatomic considerations, to carry out this principle of surgery in the field of the otolaryngologist. It is impossible to excise a malignant tumor of the nose or throat unless it is very young and very small, without really excising only a portion of it. If one bears in mind the microscopic picture of a neoplastic mass, he cannot overlook the fact that the surgeon not infrequently incises the tumor, and by doing so, stimulates it to greater growth and greater activity, and disseminates, with an unwilling prodigality, metastases, throughout the body.

In my own practice I have replaced the usual surgical methods for carcinoma by a procedure called electro-coagulation or electro-thermo-coagulation or surgical diathermy. A tumor can be coagulated completely with but negligible damage to the surrounding tissues; negligible, because we deal with a desperate condition. In the act of coagulation the operator seals the adjacent lymphatics and smaller blood vessels, a most desirable occurrence, because thereby is prevented the dispersion of metastases. Moreover, the penetration of lower degrees of heat from the site of coagulation to the adjacent tissue exerts an inhibitory effect, if not a destructive one, upon the migrating neoplastic cells in the distant periphery of the tumor mass, and renders them more vulnerable thereby to the destructive effects of radiation (the deep Roentgen ray and radium).

The operation of coagulation is bloodless, it is simple to perform, it is exact, because the degree of heat can be controlled with great finesse with

the modern apparatus. There is less shock. There is a great alleviation of pain as soon as the first reaction subsides. With many of my patients at the Cook County Hospital, the administration of morphine has become unnecessary, after the early reaction to coagulation has subsided.

I have described in detail in previous papers the actual technic of electro-coagulation with a discussion of the various methods. But for the benefit of those who are unfamiliar with the technique, I shall repeat. Two electrodes are used. One of them a very large indifferent electrode is applied to the patient's back. The other, a small button or ball electrode, is applied successively to various parts of the tumor. Sufficient current, usually about 1300 M. A., is used to coagulate a portion, about twice the area of the small electrode in about 20 seconds. Then the electrode is moved to an adjacent part of the tumor and the process is repeated. When the entire tumor is coagulated, the coagulum is removed by curettage and the site of the neoplasm is again heated through for a period of five to ten minutes. During the second heating the temperature is not raised sufficiently to cause coagulation.

When the lesion involves the tongue or tonsil it is readily accessible and no special exposure is necessary. When it involves the post nasal space, the proper exposure is achieved by retraction of the soft palate by rubber catheters. In malignancies affecting the nose and the para-nasal sinuses, it is necessary to expose the bony wall and then apply the usual technic of coagulation.

The approach to the larynx is more difficult, and may be by either of two routes; namely, thyrotomy, or through the mouth. The endoscopic route is preferable. It is simple in the hands of a competent laryngologist, and it eliminates the necessity of an external operation with the attendant dangers of infection. The procedure is called Suspension Laryngoscopy, and by its use the operator secures a wide exposure of the interior of the larynx. The operation is preceded for seven to ten days by tracheotomy. In a large series of cases at the Cook County Hospital, there has been but a single case of pneumonia following coagulation. As much cannot be said for Laryngectomy.

It still remains to speak of the choice of anaesthetic. Ether cannot be used because of its inflammability. An occasional spark from the active electrode cannot be avoided. I have em-

ployed chloroform, administered by a competent anaesthetist, with very satisfactory results. Local anaesthesia, nerve block, synergistic anaesthesia, scopalamine morphine and nitrous oxide have been tried, but have been abandoned in favor of chloroform.

CONCLUSIONS

1. The recognition and proper management of the so-called precancerous stage will undoubtedly diminish the incidence of cancer in the field of Otolaryngology.

2. Because of anatomic limitations, surgery, in malignant neoplastic diseases of the nose and throat is not a logical procedure.

3. Diathermy (surgical) followed by radiation offers the following advantages over surgery:

(a) There is no dispersion of metastases by this method.

(b) It is simple and bloodless.

(c) It removes the tumor as completely as surgery.

(d) The radiating heat from the field of coagulation exerts an inhibitory effect upon the vagrant new cells in the periphery of the tumor.

Whether we can cure cancer by electro-coagulation is an open question. The method possesses advantages over surgery which are fundamental in importance. It certainly offers virtues which are not possessed by either radium or x-ray.

Owing to the comparatively short period during which the coagulation method has been employed, I do not feel justified to submit definite results at this time, but in the course of three or four years, I hope to present a definite record of my experience in the work.

PRESIDENT: This paper is now open for general discussion. Is there any discussion?

DR. SAMUEL G. HIGGINS, Milwaukee: Mr. President and Members of the Society. I feel that something should be said in praise of Dr. Novak's paper. I thank him for calling our attention to the advanced work that he is doing. It is quite possible that diathermy may be used in other parts of the body. The real field for its application is yet to be determined. My experience in malignancy of the ear, nose, and throat is such that I feel that if you can excise beyond the tumor you can look hopefully for a favorable result; if you excise or incise into the tumor, the result is bound to be doubtful.

A word regarding the prophylaxis. People that I have seen with carcinoma of the larynx have uniformly had bad mouths, and particularly bad teeth. As the consultant at the Soldiers Home Hospital I see there a great many old men with bad teeth that do not have

carcinoma, but among those that do have the malignant throats, they all have very bad teeth. I think prophylactic treatment and care is of great value.

I consider rectal anaesthesia of value in suspension laryngoscopy.

There is another thing besides his preliminary tracheotomy that you may think somewhat radical, but is very helpful, and that is a previous gastrotomy. The feeding of a patient after any radical work on the larynx is very annoying. If you get an opening through the abdominal wall and give your feeding directly into the stomach, you avoid a great deal of annoyance.

The point is that this is very serious work; the patient should be seen early, and your operation should extend beyond the border of the malignant growth.

DR. NOVAK: I can only add that Dr. Higgins' observation regarding prophylaxis of the mouth is well taken.

THE PATHOLOGY, DIAGNOSIS, PROGNOSIS AND TREATMENT OF ACUTE INTESTINAL OBSTRUCTIONS*

BY D. R. CONNELL, M.D.

Surgeon to the Beloit General Hospital

BELOIT

Probably in all the field of abdominal surgery there is no disease so difficult to fathom, and certainly no condition in all the surgical calamities that calls for more good judgment than do the acute intestinal obstructions. Not alone do they call for a clear diagnosis, but this diagnosis must be made early as they only yield in the great majority of cases to the early surgical treatment.

Before taking up the consideration of the variety of intestinal obstructions, I wish to bring to your attention some of the facts in the anatomy of the intestines. The gut, both large and small, is a potential tube about thirty feet in length, provided with nerves, arteries, veins, and lymphatics. It is a potential tube because sometimes its lumen is open and other times it is closed, and so tightly closed that it might resemble a fibrous cord. The outer or peritoneal coat of this tube is a sensitive, tense radiating membrane. Just inside this coat is the firm but elastic muscle and fibrous layer. Inside these two coats is the mucosa, which if spread out on a flat surface, would cover a much greater area than would the muscular or peritoneal layer. It is thrown up into loose folds attached to the muscularis so it readily accommodates itself

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to the various tones of the latter. As the intestinal contents keeps moving from the inlet of the tube to the outlet, the forward movement is kept up by the contraction of certain portions of the muscular coats of the gut, assisted by gravity and by the movements of the abdominal muscles and the diaphragm. If the contents fail to move forward and stasis occurs in the tube, various factors may be at fault. The muscular wall of the intestine may be relaxed or in a condition of paralysis, because of affection either of the muscle itself or of the peritoneal coat or by lack of nerve supply as in spinal cord lesions. On the other hand the muscular wall of the intestines may be contracted, entirely obstructing the lumen and preventing the passage of its contents. Such a condition we see in lead poisoning and in tryo-toxican infection inside the gut. Then again the obstruction may be purely mechanical, located entirely outside the alimentary tube, or may be situated within its lumen, a foreign body, etc. All these obstructions we classify under one head, namely, an ileus.

Now, what do we mean by an ileus? The term signifies no pathology, simply a chain of symptoms consisting of pain and vomiting and failure of the bowel to move its contents onward.

We observe in practice three common forms, adynamic ileus, dynamic ileus, and mechanical ileus. This adynamic ileus, meaning without power, we again divide in two forms. First, the bowel may be unable to function on account of some mechanical assault on the intestine. The most common cause is a post-operative one, caused by the careless handling of the small intestine, and sometimes the large intestine, or by exposure to cold, but above all, the most frequent, by exposure to heat. In my travels through the country witnessing the technique of many surgeons, I am surprised to see steaming, hot towels used to pack off the small intestine. Steaming, hot towels on the small intestine is probably one of the greatest causes today of post-operative ileus. In strangulated hernia, when the bands are cut and the gut looks questionable, steaming, hot towels applied to restore circulation will kill the patient and the blame, of course, attaches to the gangrenous gut. Many times instead of the former gangrene you have a paralytic ileus from the burning of the intestine with these hot sponges.

Gentlemen, this is not a dream, because nearly every week in some hospital, when I call for

laparotomy sponges they are handed to me steaming hot, showing that it must be practiced in some of the hospitals. Let me emphasize that hot towels will kill and kill sure by producing an ileus, especially if applied to the small intestine. Lesions of the spinal cord produce atonic paralysis of the intestine by cutting off its central motor supply. In compressing the cord in fracture of the spine, the patient's intestines become immediately paralyzed. This condition will be permanent or not, according to the injury of the cord.

The second division of adynamic ileus is the septic type, due generally to local peritonitis. In the most common form the patient has primarily an acute appendicitis with perforation and infection of the peritoneum, or a perforation of a duodenal or gastric ulcer, or perforated gall bladder. The patient at once has suspension of the peristalsis and inability to secure bowel movement.

What happens? The pulse begins to rise, the vomiting begins. You give this patient enemas; no result, until perhaps an hour before death. When you see this picture you know that death is at hand. This is adynamic ileus from general septic peritonitis. There is only one cure for general septic peritonitis, and this cure is so certain that it has not changed since the days of Murphy, McBurney and Senn. It is as sure now as it was thirty years ago, and that cure is to get out the appendix, or close this hole in the stomach or intestine or gall bladder before the trouble has time to develop. If you have ever seen a case, and of course you have, you do not need today the admonition of my poor words.

Dynamic ileus includes lead poisoning and tyro-toxican poisoning, fortunately rare, and one of the puzzles in abdominal diagnosis. Probably some of the older men from the Chicago Medical College will remember Doctor Hibbard, who died from tyrotoxican poisoning after a few days' illness from eating ice cream. The postmortem explained the cause. The treatment of both dynamic and adynamic ileus is still in doubt. I remember when I was beginning the study of surgery about thirty years ago, intestinal obstruction was a great topic for discussion. First, as to its diagnosis, and second whether the results obtained by operation were better than by leaving them alone. Indeed, you will find a splendid array of statistics showing you that patients with intestinal obstruction recovered as well, if not better,

without, than with the operation. Why? Because the doctors had not learned at that time, nor have they at this time, learned to differentiate between the mechanical type and the adynamic and dynamic types of ileus. The cases in the last two groups often get well without operating. In fact, most of them die with an operation. I am not clear myself whether the dynamic and adynamic ileus are surgical or medical. I have certainly operated a bunch of them and the results have been generally fatal, probably all fatal.

The third class is a mechanical ileus. The most important of all because generally easily recognized and an early operation brings its own reward. All the signal lights are on. Procrastination here is death and the surgical treatment reigns supreme. The conditions which most frequently produce mechanical obstruction of the bowels are, strangely enough, situated outside the abdomen proper; namely: the external hernias, inguinal, femoral, umbilical, and ventral, the first being by all odds the most common. When a loop of the intestine slips into one of these peritoneal pockets the intestinal contents are no longer able to move forward on account of compression and kinking of the bowel, just as water in a hose no longer runs when the hose is kinked. The stoppage of the flow forward produces symptoms of intestinal obstruction as already described. The circulation of the intestine is shut off at the same time. The symptoms are those of strangulation added to those of ileus. A mechanical obstruction of the bowel which merely interferes with the onward movement of the fecal current may last days before the patient succumbs. A strangulated ileus which has existed for forty-eight hours nearly always kills the patients, operation or no operation. If operated, the patient is rid of the obstruction but not of the consequences, such as gangrene of the gut, suppurative peritonitis, perforation of the intestines, etc., etc.

The results in this field of abdominal surgery have not improved materially in the third of a century that I have been before the medical world. Even with all the increase in our knowledge of pathology and symptoms, and with all our improvements in surgical technique, the mortality, due to mechanical strangulation of the bowels, has not materially changed in the last third of a century. Why? Because the diagnosis of mechanical ileus is not often made in time and even when

it is made, prompt surgical treatment is not allowed by the relatives of the patient, or still more common, not demanded vigorously enough by the family doctor. The doctor who waits before insisting on an operation until he sees his patient will die of obstruction, will find that his patient will also die after he has been operated. He will meet the undertaker on the steps as he is leaving the bedside of his unfortunate victim.

Given a patient with strangulated hernia, immediate operation should be advised and insisted upon. The long honored treatment of strangulated hernia by taxes I mention to give myself an opportunity of condemning it. As the records will tell you they are often reduced into the abdomen still strangulated. The symptoms of strangulations of every name and nature are pain and vomiting and failure of the bowels to move their contents onward. Cut the bands of adhesions and relieve the gut. If done early a general anaesthetic is the best, and ether the choice; if done late they will die and anaesthetic is immaterial.

After replacing the hernia, complete the repair in the general way. What will you do when the gut is gangrenous or when in doubt? The text books will tell you to resect the questionable gut, do an anastomosis with a Murphy button or a needle and thread and return the repaired gut into the abdomen. Practically all the text books agree on this treatment. But, gentlemen, I am here to tell you that if a gangrenous gut is resected and an anastomosis made and returned into the abdomen, it will be followed by a funeral in five or six days. I venture to say, that few, if any of this audience of mine today ever saw a case recover following an operation of this kind.

If that is so, and I think it is, what will you do with this gangrenous gut? Cut the bands of adhesions, or in case of hernia cut the ring that pinches the gut, fix the bowel in situ until you see the outcome. If it fails to recover and becomes gangrenous you will have fistula extra peritoneal and when your patient's condition is satisfactory in a month or two do one of the anastomoses as I have described, with low mortality.

Now, in conclusion, let me urge the surgical treatment of all mechanical hernias. Cut down on the hernia, cut down on it early and remove the obstruction as already described. Do not waste your time and reputation and above all the patient's life with the expectant treatment. Second,

do not roast a questionable gut with hot towels, etc. When in doubt leave the gut in situ, a wide open wound, and await the outcome. Anastomosis by resection of the gangrenous gut and its return into the abdomen at the time of the acute strangulation is always fatal.

While the treatment of adynamic ileus, both from trauma and infection is at times surgical, still the prevention is much better than the cure. Do not traumatize the intestines by unnecessary handling or exposure, and above all do not produce a paralysis by heat or cold. Operate your appendices, and perforated gastric and duodenal ulcers early, thereby preventing this sad and fatal complication.

The treatment of mechanical ileus is always surgical, always early surgical and with few exceptions with general anaesthesia, of which ether is the best.

Finally, I wish to acknowledge my indebtedness to the statistics of many of the great surgeons of the day and especially do I wish to give my due credit to my former friend and teacher, Doctor Murphy, many of whose sayings are a part of this address.

PRESIDENT: The discussion will be opened by Dr. Heidner, of West Bend.

DR. A. H. HEIDNER, West Bend: Mr. President and Gentlemen. I wish to compliment Dr. Connell on his excellent paper. I am sure that if all cases of intestinal obstruction were treated according to his suggestions, the present high mortality would be very materially lowered.

Mechanical obstruction is a mechanical condition, and there is no doubt that the best, and probably the only treatment, is of a mechanical nature—meaning of course, operation.

There are, however, certain cases of intestinal obstruction, even of the mechanical type, in which, due to the condition of the patient, or the surroundings under which he is found, operation is probably inadvisable, or contra-indicated. There are also times when, because of circumstances beyond our control, operation must be delayed for a longer or shorter period. The question arises as how best to handle these cases until an operation can be performed. In selecting the treatment for this type of case we must consider the fact that in most instances mechanical obstruction is caused by excessive peristalsis. Certainly every case is aggravated, if not actually brought to the point of strangulation, by the violent agitation of the bowel, by which nature eventually attempts to force the intestinal contents forward. The more we stimulate peristaltic action the more firmly does the intestine become wedged into its cramped position, with subsequent pressure on the venous return, swelling of the strangulated gut, and

finally strangulation. In spite of this fact we still see many, if not most of our cases of mechanical obstruction treated for a longer or shorter period by the use of purgatives, and sometimes even injections of pituitrin. It seems much more rational to me to give large and oft repeated doses of morphine, to quiet the intestinal action. By this means the bowel becomes relaxed, and if it is not too firmly wedged into its abnormal position it will in many cases quietly slip back to its normal place, and the obstruction will be automatically released. Of course, the application of external heat for shock, withdrawal of all food and drink by mouth, frequent gastric lavage, injection of sodium-bicarbonate and glucose by rectum, if you will, and subcutaneous injection of normal saline and water, are all important in keeping the patient in good condition until the operation can be performed, or until the obstruction is relieved.

I should like to emphasize that I do not recommend this treatment in place of operation, but only as treatment before the patient can be brought to operation, or in certain cases where surgery is probably more dangerous than the obstruction itself. I have in mind cases of advanced cachexia, patients who are very obese, patients who are found out in a dirty house or in a home harboring other individuals with some infectious trouble, where road and weather conditions make removal to more favorable surroundings impossible.

I have seen apparently hopeless cases of intestinal obstruction go on to a good recovery by this treatment, and I am sure that many others here have had the same pleasant experience.

PRESIDENT: The discussion will be continued by Dr. Victor Mason, of Marshfield.

DR. VICTOR MASON, Marshfield: Mr. President, Ladies and Gentlemen: I wish to congratulate Dr. Connell on his excellent paper on Acute Intestinal Obstruction.

A short time ago Dr. Charles Mayo made the statement that twenty-five or thirty years ago appendicitis was discussed at every meeting of the American Medical Association, and now, since these discussions have stopped he believes that the mortality is greater than it was twelve years ago. The same thing holds good with intestinal obstruction.

As Dr. Connell has said, there is no other condition which demands greater diagnostic ability, quicker action, or better judgment than this class of cases. And therefore the more we discuss the same, the better and quicker will the diagnosis be made, and the mortality thus lessened.

While we agree with the greater part of Dr. Connell's paper, we think that we can with profit in this brief discussion review some of the essential facts concerning acute intestinal obstruction, so that we may better keep them in mind. In this way we will be able to make a quicker diagnosis, and have a clearer conception as to the prognosis and method of treatment.

From an etiological standpoint the following facts should be kept in mind: First, that 50% of all intestinal obstruction follows a previous abdominal operation, either immediately from stasis, or later from ad-

lesions. Second, that males suffer from this condition two and one-half times oftener than females among the white population, but this ratio does not hold among the negroes because of the greater frequency of pelvic inflammatory diseases. Third, that intussusception occurs in 50% of the cases in young children, while in the other half of the cases it occurs in middle or later life, due to invagination of the bowel from tumors, either benign or malignant, or from ulceration due to tuberculous lesions. Fourth, that volvulus usually occurs in the region of the sigmoid flexure, and it likewise occurs in the later years of life.

Regarding the symptoms, we must keep in mind that pain is present in only 83% of the cases, nausea and vomiting in only 80%, constipation in only 50%, distension in only 48%, and visible peristalsis in only 20%. Therefore we see that any one or more of the most important symptoms may be absent. Knowing these facts we can readily understand how valuable time can easily be lost, thus endangering the patient's life, while waiting for symptoms to develop which may never occur.

A few points as to the diagnosis. The lower the obstruction the more the tympany, which is as a rule general and marked. The higher the obstruction the less the tympany which often is asymmetrical. The lower the obstruction the later the vomiting makes its appearance, while the higher the obstruction the more the vomiting and the quicker it appears. Again if the obstruction be high the patient may continue to have several bowel movements after the obstruction has occurred, while the lower the obstruction the less the number of bowel movements, or the smaller the amount of fecal material that can be obtained with the rectal tube. If a given case of supposed intestinal obstruction does not vomit, valuable information may be obtained at an early hour by the use of the stomach tube and examining the stomach contents for its fecal odor, which is characteristic. A rectal examination should never be omitted in diagnosing intestinal obstruction, because we may be able to feel an intussusception or tumor which might otherwise be missed.

As to the mortality we will say that in one of the Johns Hopkins reports they figured the mortality from 217 cases and find that the average mortality from all forms of acute intestinal obstruction is 36%, the mortality depending not upon the character of the operation that is done, but upon the time at which it is done after the onset of the obstruction. For instance, in the first twelve hours the mortality was 5%, while in the second twelve hours it had increased to 11%, and in the third twelve hours it had increased to 31%, and so on. The highest mortality occurring in cases following pelvic inflammatory trouble after having a previous operation. Death is practically always due to absorption of the toxins from the toxic material in the intestines.

Suggested Technique: The operation done must depend upon the condition of the patient and the cause of the obstruction. As stated above it is the early operation that saves the patient. If possible the bowels should not be allowed to escape from the abdomen. The essential thing is to locate the site and cause of the

obstruction as fast as possible. This may be done rapidly by first palpating the caecum and if this is found distended it indicates at once that the obstruction is low down. If the caecum is not distended we likewise immediately know that the obstruction is in the small bowel. If there is marked distension and it is impossible to prevent the bowels from escaping through the incision, or if considered advisable to hasten the operation it may be necessary to open the bowel, allowing some of the toxic contents and gas to escape. As a rule we prefer local or spinal anesthesia in operating for intestinal obstruction.

Regarding the treatment we would mention the following: First, stomach lavage, second, enemas, third, use your best judgment relative to the kind of operation determined by the condition of the patient and the cause of the obstruction, fourth, give large amounts of glucose and saline subcutaneously or per rectum, and fifth, transfuse the patient if in desperate condition.

PRESIDENT: The paper is now open for general discussion.

DR. JOSEPH SMITH, Wausau: Mr. President and Gentlemen. There are just two phases of the subject that I desire to call to your attention. In the first place, I think that Dr. Connell's statement in regard to the high mortality of re-section and suture, or anastomosis, is a little too sweeping, and I do not believe that statement ought to pass unchallenged. I know personally of a number of cases in which resection has been done under apparently unfavorable conditions, in which recovery has occurred. I am sure that these patients do not all die. I think a great deal depends upon the condition of the patient, and upon the integrity of the mesenteric circulation. That is a thing we have to look to, when considering the type of operation to be carried out in a given case.

The second point that I desire to mention is in regard to the performance of enterostomy. A great deal has been said about the safety of enterostomy. I am sure if we sidestep these cases and simply pull up a loop of gut and open the bowel, we will get into a lot of trouble, especially in those cases of high obstruction. In a case of obstruction high up in the ileum, by doing enterostomy, you simply make a hole in that bowel and substitute death by starvation instead of death by peritonitis. I think in those cases of upper abdominal obstruction we should be extremely careful about doing an enterostomy. It is simply postponing the evil day. In those cases we should endeavor to find the cause and remove it, and not do an enterostomy.

DR. EDWARD EVANS, La Crosse: Mr. Chairman and Gentlemen. In cases of septic peritonitis, where the case looks hopeless, there has been some experimental work done by Fountain of Toronto. See S. G. & O., Mar. 1923 and Feb., 1924. Basing his experimental work on the fact that the thoracic duct drains the whole peritoneal cavity, and throws its contents into general circulation, he carried out a series of experiments in which he tied the base of the appendix and also its mesentery in a series of dogs, sewed up the abdomen and observed septic peritonitis develop. All his dogs died. Then

with another series of dogs after the above procedure he opened the thoracic duct in the neck, and his dogs recovered. In a clinical case he did this operation on a child about ten years of age with a general peritonitis and the child promptly recovered.

In two desperate cases of far advanced peritonitis from ruptured appendix, I did this operation but without benefit. I do know of a case, however, where one of my previous internes in a case of very severe peritonitis, following delivery, opened the thoracic duct in the neck and the woman promptly recovered.

(See report of Dr. Edward, Baraboo, Wis., in S. G. & O., Feb., 1924.)

PRESIDENT: Is there further discussion?

Before I ask the essayist to close I should like to make a few practical suggestions. We have the point as to the anaesthetic which is most important, that in these cases a local anaesthetic should have the preference. But if a general anaesthetic is to be administered, the most important factor in that anaesthetic should be a preliminary washing out of the stomach, because in cases of intestinal obstruction under general anaesthesia patients have been drowned in their own gastric secretion, which they vomit, and which has been aspirated into the bronchi.

The Doctor speaks about the gangrenous or suspected gangrenous wall of the intestine, and applying the hot-packs. A suggestion made many years ago by Samuel Plummer of Chicago is so rational and so sane that it is remarkable that it is not better known, and I would like to call it to your attention. He emphasized the fact that this threatening gangrene, or venous congestion is due to the constriction of the mesentery and interference of the venous return, and that while we apply hot packs, we still have the mesentery under tension, interfering with the venous return. He has shown that if we merely divide the obstruction and replace the bowel within the peritoneal cavity, then we have an ideal hot application, which will not interfere with the mesenteric return circulation, and the condition of the bowel will improve more rapidly than it will under other conditions. This needs emphasis. And in treating acute intestinal obstruction, I feel that the mortality rate would be lower if we would treat it as an emergency case, and only try to save the patient's life, and leave the correction of the cause of the obstruction to a subsequent sitting. If we would do that I am sure that the mortality rate would be lowered.

DR. D. R. CONNELL: Mr. President, Ladies and Gentlemen: Of course you realize that my twenty minute address covered a large field, and the ground could only be touched lightly.

Now as to a local or general anaesthetic in operating on strangulation of the bowel, Haggard of Nashville, Tenn., says that all strangulated hernias should be operated with local anaesthesia. This I read the other day in the Journal. Personally, I am not so clear on that point. Of course, in old men with heart lesions and fat people and people that are poor surgical risks and late cases, there is no question about the advisability of using the local anaesthetic. But the plea I made in this

address is for the early surgical operation. I think that when a man who was normal before he had the obstruction, is too weak to stand a general anaesthetic, he will also die when operated under local. As suggested by someone the stomach should be emptied. Of course, that is understood to be part of the treatment in all these cases.

Now as to the question of intestinal anastomosis of a gangrenous gut at the time of the operation, I know this is open to question. I have received letters from very reliable sources that recoveries have taken place. Personally I never saw one. The whole theme of my address is a plea for the early surgical consideration of this class of cases. As I said before when you wait to see that a man with a strangulation will die if not operated, he will also die if operated. You will meet the undertaker going into the Hospital as you drive away.

I thank you, Gentlemen, very kindly, for your liberal discussion of my paper.

UROLOGIC DIAGNOSIS

BY IRA R. SISK

MADISON

- I. Complete Duplication of the Pelvis and Ureter with Hydro-ureter.
- II. Bilateral Pyelitis in Children.
- III. Essential Hematuria.
- IV. Large Branched Calculus in Left Kidney; Multiple Calculi in Left Ureter; Chronic Cystitis and Cystitis Cystica.

The urologist whose percentages of accuracy in diagnosis are the highest must possess (1) the ability, means, and desire to obtain all possible knowledge about any given condition, and (2) the ability properly to interpret his findings. The interpretation of findings is largely the result of training and experience. The ability, means, and desire to obtain all the information possible about the case are very essential qualities because many errors in urologic diagnosis are the result of incomplete examinations. How often is an important disease overlooked because the examiner has found one lesion and has attempted to explain all symptoms by the presence of this without further investigation. Many calculi are overlooked for long periods of time and patients are treated for the accompanying infection simply because a roentgenographic examination was not performed. Likewise, many patients receive treatment directed toward the bladder when the offending disease is in the kidneys.

It behooves us, therefore, as urologic diagnosticians to be precise in our work and make our examinations complete. By a complete examination I mean:



Fig. 1 (Case 1). Complete duplication of pelvis and ureter on the right side, with infected hydro-ureter.

1. A good history. This should be written accurately and in detail.

2. A careful and complete physical examination. This should include not only the genitourinary tract but the entire body.

3. Examination of the urine. One should never be satisfied with the examination of a single specimen but should always insist on at least a twelve-hour specimen and preferably a twenty-four hour specimen.

4. Roentgenographic examination of the kidneys, ureters, and bladder should be done as a routine procedure before cystoscopic examination. Neglect of this frequently results in mistaken diagnoses and improper treatment.

5. Study of renal function. Precystoscopic determination of the renal function by means of the phenolsulphonephthalein test and an estimation of the blood urea are imperative in all patients over forty years as well as in those under forty

whose history and physical examination suggest that the pathologic process is severe or advanced.

At the time of cystoscopic examination of all patients on whom ureteral catheterization is carried out the function of each kidney should be studied separately by means either of the phenolsulphonephthalein or indigo-carmin tests, preferably the former.

6. Cystoscopic examination. This should include a thorough inspection of the bladder and urethra in all cases. If the history suggests any renal or ureteral disease, or, in the absence of this, if the examination of the urine reveals either pus or blood, or if the roentgenograms show any shadows suggesting calculi, both ureters should be catheterized. Urine should be collected through the catheter, examined microscopically, and if pus is present, cultured.

7. Pyelo-ureterograms are made as indicated in individual cases.

CASE I (30540)

Mr. C. P., aged twenty-eight years, came to the Jackson Clinic complaining of pain in the lower right quadrant of the abdomen, extending upward, backward, and toward the region of the right kidney. He also had some pain across the entire lower abdomen. Thirteen years previously he had had acute gonorrhoea; he had been treated for a period of six weeks and apparently cured. Seven years ago he again suddenly developed a slight discharge, without exposure, which continued and was especially marked in the morning. The doctor whom he consulted made a diagnosis of gonorrhoea and treated him until he came to this Clinic. He received no benefit from the treatments, which consisted in urethral injections, prostatic massage, vasotomy and seminal vesicle injections.

On physical examination little of importance was found. The prostate and seminal vesicles were somewhat enlarged and hard. Examination of the urine showed specific gravity 1.020, reaction acid, a little albumin and no sugar. On microscopic examination a great deal of pus was found. Examination of smears from the prostate and urethra revealed some pus but no gonococci. Roentgenograms of the kidneys, ureters, and bladder were negative.

On cystoscopic examination, a mild, chronic cystitis was noted. The prostate appeared rather large but offered no definite obstruction. There was a

mild chronic posterior urethritis. The left ureteral orifice appeared normal as did the urine spurting from it at regular intervals. On the right side were two ureteral orifices, one of which appeared normal and had clear urine spurting from it. The second was about 1 cm. posterior and lateral to the first, and about 0.5 cm. in diameter. Very turbid urine slowly exuded from this second opening. Catheters passed easily and full length into all openings. The catheter in the large opening on the right side was opaque to the roentgen ray. All of the catheters drained well and microscopic examination of the urine collected from the left side and from the anterior orifice on the right side was negative. That collected from the catheter in the posterior orifice on the right side showed considerable pus (thirty cells to the field).

A differential functional test of the kidneys yielded a return of 18 per cent of dye from the left side, 5 per cent from the catheter in the anterior orifice on the right side and 2 per cent from the catheter in the posterior orifice on the right side.

Pyelo-ureterograms (Figs. 1, 2, and 3) confirmed the diagnosis of complete duplication of the

pelvis and ureter on the right side, with infected hydro-ureter.

Comment. As the infection is limited to the lower segment of the pelvis and its ureter, hemi-



Fig. 2 (Case 1). Complete duplication of pelvis and ureter on the right side, with infected hydro-ureter.



Fig. 3 (Case 1). Complete duplication of pelvis and ureter on the right side, with infected hydro-ureter.

nephrectomy with removal of the dilated ureter is indicated and will be attempted.

CASE II (28319)

Miss F. S., aged six years, had a bilateral renal infection. I first saw this little girl early in October, 1923, when she gave a history of an acute illness five weeks previously with pain in the right upper quadrant radiating to the back and also to the epigastrium. When the pain was severe she vomited, but ingestion of food had no relation to the pain, which developed suddenly and was quite severe. The appetite was poor. It had been necessary for the child to get up twice at night to void. She had complained of chilliness at times and the mother thought she had had a high fever.

On examination I found the temperature to be 99.6°. The tonsils were very large and showed evidence of chronic infection, and there was slight tenderness on palpation in the right upper quad-

rant of the abdomen. Urinalysis revealed specific gravity 1.010, reaction acid, some albumin and a great deal of pus. Examination of the blood showed hemoglobin 68 per cent, erythrocytes 3.9 per cent, and leucocytes 26,000. The Wassermann

colon bacilli. A second cystoscopic examination was performed October 18 and the right pelvis was lavaged with a solution of boric acid. At that time the amount of pus was greatly reduced, but the right pelvis was again lavaged.

Cystoscopy in some children is very simple. It was necessary in this child to use only a little cocaine in the urethra for anesthesia, and she behaved better than most adults. At a recent examination the urine from the right kidney appeared perfectly clear and the laboratory reports stated that no pus was found on microscopic examination.

Comment. It is seldom necessary to cystoscope and lavage the renal pelvis of children with bilateral pyelonephritis, as in most cases the condition will clear up under medical treatment. When the patient is acutely ill, as in this case, over a prolonged period of time, and when there is a great deal of pus in the urine, pelvic lavage is certainly of great value, especially if the catheter is left in place for twenty-four or forty-eight hours. The improvement is almost immediate in most cases.

It does not seem to matter particularly what solution is used for lavage in cases of acute pyelitis in children, since improvement seems to follow lavage no matter what drug is selected. Doubtless the emptying of the pelvis and continuous drainage are of greater importance than the antiseptic effect of the solution. In children, a solution of boric acid is very satisfactory, although a solution of 0.5 to 1 per cent silver nitrate, 1 per cent mercurio-chrome or any of the many antiseptics suggested for the purpose, may be used with safety.

In addition to the group of children who are acutely ill with a severe infection and much pus, there is another group in which I think pelvic lavage is indicated; that is, children who have been treated medically without being materially improved. In such cases the condition often clears up quickly as a result of pelvic lavage. The medical treatment which is used in pyelonephritis in children consists, briefly, of rest in bed, forced fluids, and the administration of alkalis, or the use of alkalis and hexamethylenamin with acid sodium phosphate on alternate weeks.

Whether treatment is medical or purely local, children with pyelitis should be given careful general examinations and the proper steps should be taken to improve their general condition. Foci of infection should be searched for, as badly infected



Fig. 4 (Case III). Normal kidney and ureter on the right.

reaction on the blood was negative. Roentgenograms of the kidneys, ureters and bladder were negative. Blood urea showed 27 mg. to 100 c.e. of blood.

As the child appeared very sick, suffered with considerable pain and had so much pus in the urine, a cystoscopic examination was performed October 13. Mild cystitis was present, normal appearing urine spurted from the left ureter and very turbid urine from the right. Both ureters were catheterized and as the drainage from the right kidney was of a milky white color, due to the large amount of pus, the catheter was left in place for forty-eight hours and the renal pelvis lavaged with a solution of boric acid. Urinalysis revealed a great deal of pus on the right side and a small amount (eighteen cells to the field) on the left side. Stains for tuberculosis bacilli were negative; cultures of the urine showed the presence of

tonsils and large adenoids are often found in these children, and should always be removed. Proper dietary and hygienic measures must also be instituted.

CASE III (36674)

Mr. E. B., aged thirty-six years, had gross hematuria for two and one-half years, except for a period of three weeks in the spring of 1923 when he was almost free from bleeding. He had practically no pain. Once last spring a rather severe pain developed on the right side after which he passed a clot. It seemed reasonable to assume that the attack was simply a clot colic. He had never had frequency of urination or dysuria.

The patient was a very large, tall man, and evidently had been strong, but at the time of examination he could hardly walk, because of weakness from loss of blood. Blood pressure was 125 systolic and 70 diastolic. It was evident that the patient had very marked secondary anemia. Examinations of the heart, lungs, abdomen, external genitalia, and prostate were negative. Urinalysis revealed: specific gravity 1.025, reaction acid, albumin 3, no sugar, and much blood (gross). Stains of the urine for tuberculosis bacilli were negative. Examination of the blood showed hemoglobin 22 per cent and leucocytes 9,000.

On cystoscopic examination, the bladder appeared normal. Urine from the right meatus was very bloody, that from the left, clear. Microscopic examination of urine collected through ureteral catheters was negative for pus. A differential functional test yielded a return of 12.5 per cent from the right kidney, and 16 per cent from the left in fifteen minutes. A pyelo-ureterogram showed the right kidney and ureter to be normal (Fig. 4).

The history of the case, then, may be summarized as hemorrhage from the right kidney of two and one-half years' duration, painless, with no infection in the kidney, a practically normal function as shown by the phenolsulphonaphthalein test (12.5 per cent in fifteen minutes) and pyelogram which showed the outline of a normal kidney. With such facts I was forced to make a diagnosis of that form of hematuria which, for want of a better name, is called essential.

Comment. Essential hematuria is not uncommon and practically all patients respond readily to treatment consisting simply of the instillation of

solutions of silver nitrate in the bleeding pelvis. The strength of the solution ranges from 1 to 5 per cent and treatments are given every five or seven days. The number of treatments required usually varies from two to six.

In exceptional cases additional treatment is required for the control of the hemorrhage. Blood transfusions may be of great value, as may intravenous injections of calcium chloride, or the administration of horse serum.

After hemorrhage has ceased treatment is directed toward the building up of the patient's general condition. If bleeding has been profuse, blood transfusions may be indicated. Iron tonics, nourishing foods and abundant sleep and rest are all of great importance. Foci of infection should be searched for and eliminated.

CASE IV (36855)

Mrs. A. S., a widow sixty years of age, consulted Dr. C. G. Dwight, of Madison, because of dimness of vision. She was referred to this Clinic for examination because of poor general health and the presence of a goiter.

Menstrual life had always been normal; the



Fig. 5 (Case IV). Large branched calculus in the left kidney; multiple calculi in left ureter; cholelithiasis; and calcified fibroid of the uterus.

menopause was passed at fifty. Her goiter has been present for twenty years, and at times caused a slight choking sensation. About fifteen years previously she had several attacks of severe pain in the left side and at that time her doctor had made a diagnosis of calculus in the left kidney.

The complaints of this patient consisted in dimness of vision, buzzing in the head, and occasional dizzy spells. She did not suffer with any urinary symptoms; the appetite was good and the bowels moved regularly.

The systolic blood pressure was 160, diastolic 80, the pulse rate 80, and the temperature 98.6°. The patient weighed 150 pounds. The pupils were slightly irregular, with an arcus senilis. All of the teeth had been removed. The enlargement of the thyroid was a multiple adenoma. A mass was palpable in the right lower quadrant, and the left kidney was palpable. There was a fibroid about 4 or 5 cm. in diameter on the right side of the uterus and a small hard mass palpable on the left. Urinalysis showed specific gravity 1.015, reaction acid, a little albumin and a great deal of pus. The basal metabolic rate was + 11 per cent.

Roentgenograms of the kidneys, ureters, and bladder revealed: a very large shadow in the region of the left kidney; long shadows in the pelvis apparently in the ureter; a large gallstone on the right; and a calcified fibroid in the pelvis (Fig. 5).

The patient refused a complete examination, but consented to permit us to inspect the bladder. The vesical mucosa showed rather marked chronic cystitis with a very noticeable cystitis cystica across the base. In appearance both meatuses were normal, and clear urine spurted from the right. On the left side the meatus contracted regularly and expelled turbid urine.

Urological diagnosis was:

1. Large branched calculus in the left kidney.
2. Multiple calculi in the left ureter.
3. Chronic cystitis and cystitis cystica.

Additional diagnoses were:

1. Multiple nontoxic adenoma of the thyroid.
2. Cholelithiasis.
3. Calcified fibroid of the uterus.

Comment. The patient was one of those individuals who prefers to keep a disease rather than submit to any surgical procedure. In spite of the many organs involved, she was in fairly good health.

The goiter, a multiple nontoxic adenoma, at times caused pressure symptoms. The patient had at least one large gallstone which was not causing pain; a calcified fibroid of the uterus; and a large stone in the left kidney with multiple stones in the left ureter.

The urinary calculi did not cause pain. If the kidney were entirely occluded and functionless, there would be no reason for disturbing it; but the kidney was still secreting urine and was highly infected. It would, therefore, seem that thyroidectomy should be performed first in this case because of the pressure symptoms from the goiter, and that a left nephro-ureterectomy should be done at a later date. The patient refused to submit to any surgical procedure.

BLIND PENSION MANDATORY

That the law providing for pensions to the blind has a mandatory significance was the opinion of the Attorney General to the State Board of Control. The opinion held that county boards are required to allow the pension provided by law in every case where the applicant has the specified qualifications. It was also held that the State Board of Control must review the County Board actions and that withholding of the state appropriation of one-third of the total pension could only be exercised when the County Board failed to comply with the law. The opinion follows:

February 7, 1924.

State Board of Control of Wisconsin,
Capitol.
Gentlemen:

In your communication of January 24, you direct my attention to Ch. 355 of the Laws of 1923, which repeals secs. 47.08, 47.105, 47.11 and 47.135, and provides the qualifications for persons who shall receive a blind pension.

The county board is directed to appoint a regular practicing physician as examiner of the blind and deaf, and it also provides the method by which applicants shall make application for the blind pension. It also requires the person claiming the pension to make affidavit before the county clerk of the county, reciting the facts which bring him within the provisions of the statute; and the county board is given the power to require any additional proofs as to the facts upon which the applicant's right to the pension is based.

In subsec. (6) of sec. 47.08, as enacted by said Ch. 355 of the Laws of 1923, it is provided that upon action by the county board showing that any applicant for a pension is blind or blind and deaf, as the case may be, and further showing that such applicant is entitled to receive a pension, the county clerk shall immediately

draw his warrant upon the county treasurer in favor of such blind or blind and deaf person for a pension in the amount allowed and approved by the county board.

You state that the reports filed with the board show that in some instances the amount given to an applicant as pension, when added to the income of such applicant from private sources, does not equal \$480 or \$720, the amount fixed in the law as the maximum income of such persons, and you inquire whether the amount that may be allowed to such an applicant is discretionary with the county board, or whether the statute should be construed as mandatory. You also request a ruling as to what are the duties of the Board of Control with respect to the matter of pensions for the blind.

Subsec. (1) of sec. 47.08, as enacted by said Ch. 355, Laws of 1923, reads thus:

"Any male person over the age of eighteen, and any female person over the age of eighteen years, who is declared to be blind or blind and deaf as hereinafter provided shall receive from the county of which he or she is a resident an annual pension payable quarterly. Such pension shall be an amount which when added to any amount received as an income from other sources not to exceed four hundred and eighty dollars if blind, and seven hundred and twenty dollars if both blind and deaf. In no event, however, shall any pension exceed three hundred and sixty dollars if blind and four hundred and eighty dollars if both blind and deaf."

Subsec. (2) of said section provides specific qualifications for the blind or blind and deaf required to give them a pension. You will note that the language used has a mandatory significance and it gives the pension to those who have the specific qualifications provided for in subsec. (2).

The question is submitted to the county board to determine whether the qualifications exist. The county board has no power to deny any one a pension who is qualified to receive it. This would be an abuse of discretion. Neither has the county board a right to cut down the amount of pension to be received by one who is qualified to receive a pension. The above quoted statute, in specific terms, fixes the amount of the pension.

You are advised, therefore, that the county board has no discretionary power to deny a pension to one who is qualified to receive it, and that the terms of the statute are mandatory.

In answer to your second question, will say that the duties of the Board of Control are specifically given in subsec. (9) of sec. 47.08. They have the power to approve or disapprove the action of the county board in granting the pension. If the county board has complied with the statute and granted the full pension, as authorized by law, it is the duty of the Board of Control to approve the same, and cause such approval to be endorsed by the president and secretary of the Board on the certificate prepared by the county treasurer, and forward the same to the secretary of state; and this will give the county credit for one-third of the amount so certified on the state taxes next due therefrom.

If, however, the county board has not complied with

the statute in granting the pension, it is the duty of the Board to disapprove the same and withhold from the county the credit of one-third of the amount certified by the county treasurer. The duty of the Board of Control is therefore a very important one. It has the power and it is given the duty to withhold from the counties a credit of one-third of the pensions granted in all cases where the county has not complied with the law.

Very truly yours,

HERMAN L. EKERN,
Attorney General.

LAY OFFICER NOT QUALIFIED

That a lay health officer is not qualified to diagnose a communicable disease but that he must call in a licensed physician to make the necessary examination, was the opinion of the Attorney General on July 28th given to District Attorney Stanley G. Gordon of La Crosse.

"The powers and duties of the health officer," says the opinion, "relate to enforcement of health laws, not to diagnosis of disease. A health officer is not qualified under the law to diagnose communicable diseases merely by reason of his being health officer."

The Attorney General also declared that in a prosecution for alleged violation of the quarantine laws, testimony as to the existence of the disease must come from a licensed physician.

"The witness must be shown to the satisfaction of the Court to be a skilled person," says the opinion. "The mere fact that one is a health officer and has observed cases of certain disease does not make him competent to give opinions relative to such disease. He must be shown to have had both training or study, and experience in the specific medical subject under consideration."

COMMITTEE APPOINTMENTS MADE

President Rock Sleyster has announced two appointments to the Committee on Public Policy and Legislation of the State Medical Society. Dr. J. J. McGovern, Milwaukee, is appointed to succeed Dr. George Ruhland, who has left the state. Dr. George W. Nott, Racine, is appointed to succeed Dr. Edward Quick, Milwaukee, resigned.

Dr. O. B. Bock, Sheboygan, is chairman of the Committee. The appointments are made for the unexpired terms ending with the next meeting of the House of Delegates. At that time all members of the Committee will be before the House for re-election.

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“LET GEORGE DO IT.”

Under this head we list each month definite offers of service available to our readers—the members of the State Medical Society of Wisconsin. Additions will be made from month to month but if you have a need not covered here your Secretary-Managing Editor will do his best to fill your needs. Address J. G. Crownhart, 558 Jefferson St., Milwaukee.

1. PACKAGE LIBRARIES are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, and Control of Communicable Diseases. Address Package Library Dep't., Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. MEDICAL BOOKS will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. PHYSICIANS' EXCHANGE COLUMN is open to all members without charge.

4. NEW SCIENTIFIC PUBLICATIONS listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. STATE LAWS and departmental rulings can be secured through the Secretary's office.

6. LEGAL ADVICE upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

EDITORIALS

GREEN BAY GREET'S YOU

THE State Medical Society meets this month in Green Bay. The scientific meetings are to be held almost at the spot where Jean Nicolet first landed on the shore of Green Bay. As far as the eye can see are the shimmering waters of Green Bay, and winding southward is the picturesque Fox River.

Arriving by railroad, you will be landed almost on the site of the first fort occupied by American troops in the State of Wisconsin.

The roads are excellent and the surrounding country is beautiful beyond the power of description; there are numerous historic points which will stir your imagination and carry your mind back into the dim past, when this city was virgin forest and inhabited only by Indians.

Come to Green Bay and bring your bathing suit and golf clubs. We promise you a warm welcome and entertainment to suit the individual taste.

J. J. ROBB, PRESIDENT.

Brown-Kewaunee County Medical Society.

THEY WILL APPRECIATE IT

SOME thirty manufacturers and distributors of products designed to aid the medical profession will have exhibits at the Green Bay sessions. The Exhibit Hall will be directly opposite the hall in which all scientific sessions will be held.

The exhibit will be probably the most complete

in the history of our Society. That which is new and useful as an aid to you in your daily practice will be available for your inspection and the exhibitors will be glad to meet you there. Some will send their representatives hundreds of miles to see you.

If you desire to purchase—all well and good. But an exhibit hall is first a hall where you may see and where exhibitors have the opportunity of meeting you and showing you. Let us all see the exhibits.

“A SUPREME EFFORT”

FOND DU LAC newspapers of July 11th last informed the public that a state-wide meeting of chiropractors was held in that city the previous day. We quote from the Fond du Lac Reporter:

“A supreme effort is to be made by the chiropractors to have a state law enacted which will raise the educational requirements to five years of college work. A statute refusing licenses to chiropractors from fraudulent schools or courses of only two or three months will also be favored by the state association.

“Local men feel that there will be little opposition to the passage of the legislation asked. The new cabinet will present its bills for passage at the next session of the legislature.”

Just why “a supreme effort” will be necessary to pass legislation to which there will be “little opposition” the public is not told.

This journal reserves all comment until such a time as it is accurately informed as to the exact contents of the measures. We presume that will be when the measures are introduced in the next session.

In the meantime, however, we present the following from the Journal of the American Medical Association, July 12, 1924:

“ENTERS THE ‘NEUROCALOMETER’

“Probably most of those who have made a study of quackery and pseudomedicine have reached the conclusion that charlatanry of the mechanico-electrical types had reached its apotheosis in Abrams’ fantastic pieces of apparatus. But chiropractic has gone the E. R. A. one better, and presents to a palpitating world the ‘Neurocalometer’ a measurer of nerve heat! This marvel, as is fitting, emanates from the Fountain Head of Chiropractic—the Palmer School of Chiropractic, Davenport, Iowa.

Chiropractors are being circularized, their interest whetted, and they are urged to send in their orders early. The description given of the device is rather hazy, but the Neurocalometer appears to be essentially a thermopile or possibly two thermopiles, one in each arm of the instrument. The two arms are, apparently, separated sufficiently to allow them to ‘straddle’ the vertebral column. From the thermopile run wires which carry the weak electric current (always generated when a thermopile is subjected to differences in temperature) to a galvanometer. The latter, presumably, can be brought around so that the victim can see the pointer move over the dial. When the pointer stands at zero, it indicates a perfectly normal spinal column; when it swings to the right or left it is registering a ‘subluxation’! The economic possibilities of this device are surely unlimited. The thermopile part of the instrument is said to be made at the Palmer School of Chiropractic. Like Abrams’ ‘Oscilloclast,’ the Neurocalometer cannot be purchased; it can only be leased. Like the Oscilloclast, too, it is sealed and the lessee signs a contract not to break or tamper with the seals. The ‘established price’ of a lease of the Neurocalometer is \$2,200—\$1,000 cash at the time the contract is made and \$10 a month for ten years. This makes Abrams’ disciples look like pikers. As a special ‘introductory price,’ operative until July 1, 1924, these instruments will be leased for \$1,200, in which \$600 cash must be paid at the time of signing the contract and \$5 a month paid for a period of ten years. After July 1, 1924, it will be \$750 cash and \$6.25 a month for ten years. There are numerous restrictions imposed on those who would lease this device, of which the least onerous is that requiring the lessee to charge his patient \$10 for a Neurocalometer reading. It is necessary for the would-be lessee to declare what degrees he holds, from what school or schools he graduated, and whether his degrees and graduation were from ‘residential’ or ‘correspondence’ courses. No other college of chiropractic will be able to lease a Neurocalometer for class instruction, and, as a further means of boosting attendance at the Palmer ‘school,’ those who are considering taking up chiropractic as a trade are told that if they matriculate or enroll in any school except the Palmer School on or after Sept. 1, 1924, they will not be eligible to lease a Neurocalometer. The Palmer School of Chiropractic says that while the

Neurocalometer 'will not give electronic reactions of syphilis from the blood of a chicken,' it 'proves hot boxes.' Altogether, the Neurocalometer should come up to the fondest expectations of its sponsors. It will be a great business getter for the Palmer School of Chiropractic; it will bring in a handsome income to that institution and to the chiropractors that rent the device. And the ever gullible public will pay the bill."

THE JOURNAL CLINIC

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UNUSUAL COMPLICATIONS FOLLOWING FOLLICULAR TONSILLITIS

BY B. J. BIRK, M.D.,

MILWAUKEE

Mrs. L. P., age 33, married, referred to me by Dr. J. Kahn, became ill February 17, 1923, having a severe sore throat with concomitant symptoms of severe headache, coryza and general aching pains. She was treated by Dr. Kahn until March 1, 1923, at which time she entered the Mount Sinai Hospital under my care.

On admittance, the patient complained of pain in the right knee which appeared three days prior; also, headache, swelling of the left upper eye lid and cough. Swelling of the eye had begun to subside at the time of coming to the hospital as there began a profuse discharge from the nose. The condition present was a left frontal sinus infection. Swelling of the right knee was not as painful as the area above the knee joint, this area being very painful to the slightest pressure, and she was unable to move the knee. The swelling was mainly on the anterior and outer surfaces of the thigh, lower one-third. No fluctuation was present.

There was a bloody purulent expectoration with physical findings of a diffuse bilateral bronchopneumonia. X-ray of knee taken on admission showed no bone involvement. On April 7th, X-ray taken showed joint space not clear (infectious arthritis.) X-ray taken on May 19th, showed osteo-myelitis of the lower end of the femur and tibia; articulating surfaces involved. It seems rather unusual in view of the type of infection, that X-ray showed nothing until almost ten weeks after first symptoms appeared in the knee joint. Urine, specific gravity 1018—negative. Leukocytes 22,550; differential count: 84% polymorphonuclear leucocytes, 14 lymphocytes, 2 mononuclear leucocytes. Counts taken later shows leukocytosis and marked secondary anaemia; Wassermann negative; temperature ranging from normal to 103.

Because of the chest involvement, operation was delayed until March 6th, at which time under gas anaes-

thesia, multiple incisions on the outer surface of the leg were made; there being about four ounces of pus present, this being under the vastus medius muscle and suprapatellar space and opening into the knee joint. I wish to state that the knee joint was not laid open to look for bone pathology because X-ray taken showed nothing. The temperature began to subside and after about one week, it began to climb at which time the patient complained of pain over the inner surface of the right knee which gave evidence of pus and was drained. On May 6th, the thigh became swollen at which time incisions were made with findings of pus on the outer surface of the thigh. Drainage was instituted.

On June 4, 1923, three weeks after the last X-ray was taken which showed definite bone pathology, the patient finally gave her consent to operative interference, but would not permit of amputation. Resection of knee joint was done, but to no avail, and on July 23rd, amputation was done at the lower third of thigh. Prior to the resection, blood transfusion was given because of the high grade anaemia, whole blood being used.

During the last operation, the patient's condition became very grave and saline transfusion was given on the table. Hypodermoclysis was given the same day followed by partial sloughing of portions of both breasts which later required plastic operation. The patient was able to be about on crutches within four weeks after amputation and was able to use artificial limb three months later.

I report this case because of the complications which followed the initial throat infection; sequence being as follows—follicular tonsillitis, left frontal sinus infection, bronchopneumonia and osteo-myelitis of the knee. The sloughing of the breast was due to the fact that the interne gave the solution too warm.

UNIVERSITY ANNOUNCES APPOINTMENT

The appointment of Dr. Carl Arthur Hedblom, Mayo Clinic, Rochester, Minn., as chief surgeon of the Wisconsin General Hospital and professor of surgery for the Medical School, University of Wisconsin, was announced by Dean C. R. Bardeen last month. Dr. Hedblom has accepted the appointment.

Since 1917 Dr. Hedblom has been surgeon in charge of thoracic surgery at the Mayo Clinic. He graduated from Harvard in 1911 and took his Ph.D. degree from the University of Minnesota in 1920. From 1914 to 1916 Dr. Hedblom was professor of surgery of the Harvard Medical School in China.

There is no society that can replace your State Medical Society. It is the only organization that represents the profession in socio-medical activities. Every member will have a voice in the formulation of its policies at the Green Bay meeting.

PREVENTIVE MEDICINE

Edited by

W. D. STOVALL, Chairman

Section on Preventive Medicine, State Medical
Society of Wisconsin

This Section is open to all members of the State Medical Society and others who wish to discuss subjects pertaining to Public Health. Original articles, and criticisms of statements appearing in this section are earnestly solicited. Questions concerning public health procedure will be answered. Address communications to Dr. W. D. Stovall, State Laboratory of Hygiene, Madison, Wis.

OBSERVATIONS BASED ON 300 CASES OF COLLOID GOITER

BY ARNOLD S. JACKSON, M.D.,

SECTION IN SURGERY,

JACKSON CLINIC

MADISON

Approximately three hundred children are now receiving treatment for the prevention or cure of colloid adolescent goiter at the Jackson Clinic. These young people are observed at intervals of three months and accurate measurements of the neck are recorded in centimeters after each examination. Since an accurate study of the cases was not begun until 1923, it is still too early to draw any except general conclusions.

In order to make a comparative study of results, various preparations of iodine and thyroid extract were tried in series of fifty or a hundred cases. As far as can be determined at this time the results obtained from the different iodine preparations are uniform. Preparations for internal administration only have been used, since all remedies to be applied externally have long since proved less effective and quite unpleasant. The principal objection to many of the proprietary iodine tablets is their large size and disagreeable taste. This is an important factor, since the ready co-operation of the children is essential.

The administration of small doses of iodine every week during the school year rather than larger doses twice a year, as brought out by Klinger, is now generally accepted as the most satisfactory method. Klinger advocates giving, once a week during the school year, a chocolate tablet, called iodostarine, which contains 10 mg. of iodine. During the past year I have largely employed this tablet, as it seems to fill the demands better than any other preparation. The dosage, however, varies considerably. Between the ages of ten and fourteen years, in the absence of any colloid enlargement of the gland, only 10 mg. is given as a preventive. In older children, or in those with colloid goiters, this



Fig. 1. Colloid goiter in a child one and one-half years of age.

doseage is usually doubled. Again, in children with colloid goiters containing small adenomas, only 5 mg. or, in some cases, 10 mg. a week is prescribed. In these cases iodine is not administered with the idea of getting rid of the adenomas, but merely to place the gland at rest and retard the growth of the goiter. The parents of such children are informed that treatment has been begun too late to effect a cure and that in all probability surgery will be indicated when the patient is between twenty-one and thirty years of age as a prophylactic measure against the development of a toxic adenoma, a substernal goiter, or a cystic or malignant goiter.

Well developed goiters have been observed in 75 per cent of the girls between the ages of sixteen and twenty examined for various ailments in the different departments of the clinic. The sex ratio of colloid goiter has been 10 girls to 1 boy. This, however, does not represent the true ratio which is about 5 to 1 according to statistics from various school examinations. The total number of girls observed at the clinic is far in excess of the total number of boys. Consequently our actual ratio is not computed on a true and accurate basis.

Frequent studies of the basal metabolic rate have been made in the different series of cases and in each group a certain number of patients were taken as controls. These studies have not yielded any valuable information, but they have served as a laboratory aid for determining the subject's degree of tolerance to the different preparations.

Thyroid extract has been found superior to iodine in certain cases, especially in the vascular colloid type, as observed by Plummer. In these cases it has often been possible to achieve a remarkable reduction in the size of the goiter in a short time. In many instances, however, results have been transitory and the addition of iodine has been necessary to achieve a permanently satisfactory result.

The treatment of colloid goiter by iodine is often a tedious procedure, and patients should be advised early that results will be obtained only by following the treatment for a period of years. Results vary greatly; in some patients a remarkable reduction in the size of the gland is noticeable in a few months' time, while in others there is



Fig. 2. Colloid goiter in a girl eight years old.

little or no improvement. Unquestionably more can be accomplished by prophylaxis than by treatment.

While the great majority of children tolerate iodine readily, mild reactions, such as palpitation, tachycardia, and nausea occur in some instances. Occasionally there is a factor of neurosis, but in most cases merely reducing the dosage relieves the symptoms. Since giving smaller doses of iodine over a longer period of time, the tendency to iodine intolerance has been less frequently noticed.

Although the results obtained so far in the prevention of goiter have been satisfactory, the treatment of young persons who already have de-



Fig. 3. Colloid goiter with multiple adenomas in a young man seventeen years of age. The asymmetric appearance of the enlargement makes clear the presence of three groups of adenomas. Iodine is not harmful, but neither is it effective when once adenomas have developed.

posits of colloid in their glands has been in many instances disappointing. Undoubtedly, failure to secure the desired result in these cases is not altogether due to the inefficacy of the treatment but to other factors. Foremost among these, I believe, is the influence on the thyroid gland of undue physical and mental strain imposed by our modern system of scholastic requirements, social obligations, and nervous activity. That these conditions tend to produce a continued exhaustion of the available supply of thyroxin by furnishing a steady drain on the thyroid gland seems obvious. We see many girls who are unable to stand up against this forced activity and who are constantly suffering nervous or physical breakdowns.

Girls who refuse to limit their activities and take enough rest to permit their overworked thyroid glands to produce a sufficient supply of thyroxin should be required to withdraw from school or otherwise curtail their activities for at least a year. In many cases in which this has been tried I have observed not only a remarkable improvement in the general physical and mental stamina but also considerable reduction in the size of the gland. In some instances the substitution of lighter forms of gymnastic exercise for the usual strenuous requirements is of material assistance in the reduction of the thyroid gland. The

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ORGANIZED 1841

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SOCIETY PROCEEDINGS

COLUMBIA COUNTY

Members of the Columbia County Medical Society held a clinic meeting at St. Savior's Hospital, Portage, on July first. Dr. Louis F. Jermain, Dean of the Marquette University School of Medicine, conducted the clinic. The next meeting will be held at Columbus on August 13th.

DODGE COUNTY

Members of the Dodge County Medical Society were entertained by Dr. J. F. Brown at the State Hospital for the Criminal Insane at Waupun on July 24th. The meeting was well attended and papers were read by Dr. E. V. Smith, Fond du Lac, on "Goiter" and by Dr. A. E. Bachhuber, Mayville, on "Cystitis and Pylitis in Infants and Children." A thorough discussion followed.

—A. E. B.

MARINETTE-FLORENCE COUNTY

The Marinette-Florence County Medical Society held its annual picnic on Wednesday, July ninth, at Henes Park. There was a good attendance.

Dr. T. J. Redelings, president, gave a brief address as did Mrs. H. A. Vennema, speaking for the ladies. It was decided to have the wives of the members take charge of the annual meeting to be held in December. The chair appointed as a committee Mrs. H. F. Schroeder, Mrs. M. D. Bird, and Mrs. H. A. Vennema.

Dr. C. H. Borren had charge of the amusements which included horse shoes, indoor baseball, derby running and stunt games for the ladies. There were several guests from nearby counties.—M. D. B.

NINTH COUNCILOR DISTRICT

Forty members of the Ninth Councilor District Medical Society met at the Bullseye Country Club, Wisconsin Rapids, for an afternoon and evening meeting July 16th.

Following the dinner the following program was presented: "Public Health Clinics," Dr. D. T. Jones, Wausau; "The State Medical Society," Pres. Rock Sleyster, Wauwatosa; "The Full Time Secretary and His Duties," Mr. J. G. Crownhart, Milwaukee, and "The University Medical School," by Dr. R. S. Buerki, Madison. A very full discussion was had of each of the talks. The fall meeting will be held at Marshfield.

OCONTO COUNTY

At a recent meeting of the Oconto County Medical Society, the following officers were elected for the ensuing year: President, Dr. C. J. Ouellette; Vice-President, Dr. G. W. Krahn; Secretary-Treasurer, Dr. C. W. Stoelting; Delegate, Dr. C. J. Ouellette, and Alternate, Dr. C. W. Stoelting.

WINNEBAGO COUNTY

The July meeting of the Winnebago County Medical Society was held at Sunnyview Sanatorium. Following a very fine supper, Dr. T. L. Harrington of the Wisconsin Anti-Tuberculosis Association, Milwaukee, gave a most excellent talk on "The Mistakes of Moses." Dr. Gooden of Munich, Germany, was a guest at the meeting.

The August meeting of the Society will be held Friday evening, August 15th, at the Municipal Club House, Oshkosh. Mr. J. G. Crownhart, secretary of the State Society, will be a guest of the Society.

—R. H. B.

NEWS ITEMS AND PERSONALS

Dr. J. E. Ruth, Milwaukee, has left for Boston to take a special course in physio-therapy given by the Harvard Medical School at the Boston City Hospital.

On July 4th Dr. A. J. Brah and family, Milwaukee, left for New York where they will sail for Europe. Dr. Brah will take a year of post graduate work at Vienna, London and other European medical centers. On his return he will limit his practice to the eye, ear, nose and throat.

A park of 13 acres on Round Lake has been presented to the town of Sampson by Dr. Werner of Eau Claire. The lake is a favorite recreation place for residents and tourists.

Dr. Edward R. Ryan, Milwaukee, has announced the removal of his offices to suite 425 First Wisconsin National Bank Building, Milwaukee.

Announcement was made in July of the consolidation of offices of Drs. O. W. McClusky and Charles Davin of Kenosha. They are now located in the Orpheum building.

Dr. P. E. Stiem, Johnson Creek, has removed to 891 Fourty-fourth street, Milwaukee.

A tentative offer to present the medical library of the Milwaukee Academy of Medicine to the Milwaukee Public Library has been declined. The city felt that it could not adequately house the 17,000 volumes comprising the library.

Dr. W. W. Just, Manitowoc, announces a change in address to the Dempsey Building of that city.

Dr. and Mrs. George C. Ruhland, Milwaukee, have left for a motor trip through the East. Following the trip Dr. Ruhland will assume his new duties in the public health field at Syracuse, New York.

Mr. N. M. Wolfram, secretary of the Wisconsin Deaconess Hospital of Green Bay, announces a resolution by the board of trustees of that institution extending appreciation to Dr. Julius J. Bellin, Green Bay, for his gift of \$50,000.

"The Board further passed a resolution," says Mr. Wolfram, "in appreciation of the above gift, extending to Dr. Bellin the privilege to name the hospital building 'The Bellin Memorial Hospital.'"

"During the past year a new home has been erected for the nurses which will accommodate seventy-five. The Nurses' Home is also equipped with a large assembly hall, library, classroom, demonstration room, and a large gymnasium."

Dr. and Mrs. W. W. Stebbins, Madison, have returned from a 1,500 mile motor trip through northern Wisconsin and Minnesota.

Dr. P. J. Noer, Wabeno, has left for Minneapolis where he is taking up post graduate work at the University of Minnesota. During his absence his practice has been taken over by his brother, Dr. Julius Noer of Berkeley, California.

Dr. A. J. Pullen and daughter, Fond du Lac, have returned from an extensive tour in the West. Dr. Pullen visited several hospitals and sanatoriums during the trip.

Upwards of 100 fake liquor prescription blanks were filled by Milwaukee druggists during the latter part of July. Warning was sent all druggists following discovery of the fake prescriptions.

Dr. Ebba A. Dederer, Rome, New York, has been appointed superintendent of the Wisconsin Industrial Home for Girls at Taycheedah. The appointment was made by the State Board of Control late in July. Dr. Dederer succeeds Miss Jennie Gower, resigned.

Dr. Dederer was connected with the Rome State School for Girls in New York and has had wide experience in that type of work. She will assume her new duties on September first.

Dr. J. J. Minahan, Green Bay, has now opened his office at Chilton. He is a graduate of Marquette and for several years practiced at St. Nazianz.

Dr. H. M. Caldwell of Poynette has moved to Columbus where he has taken over the practice of Dr. H. G. Peck. Dr. Caldwell is a graduate of Rush and a former house physician of Milwaukee Hospital. Dr. Peck has now retired and will make his home in Fond du Lac.

Three recent graduates admitted to practice in Wisconsin have announced the opening of their offices. Dr. Carl Neidhold, Rush, will open an office in Appleton with Dr. William N. Moore in the Arcade Building. Dr. E. J. Konop, Marquette, is located at Sawyer, near Sturgeon Bay. Dr. Russell Miller will be associated with his father at Whitewater.

MARRIAGES

Dr. William Wagner, Cleveland, Wis., to Miss Lillian Margaret Anglim, Oshkosh, at Oshkosh on July 8th. They will make their home in Oshkosh.

Dr. Martin Werra, Waukesha, to Miss Elsie Dudenhofer, Milwaukee, at Milwaukee on June 28th. They will make their home in Milwaukee.

Dr. Edmund A. W. Scholter, Prof. of Anatomy, Marquette University, to Miss Irene Rose Brielmaier, River Falls, at River Falls on July 5th.

DEATHS

Dr. John A. Birkl, Milwaukee, died at his home on July first at the age of 47. He had practiced in Milwaukee for the past 26 years. He was a member of the Masons, Elks and Knights of Pythias.

Dr. Archibald McKellar, Blanchardville, died at his home on July 14th.

SOCIETY RECORDS

NEW MEMBERS

Patten, Leigh K., 336 So. Hoyne Ave., Chicago, Ill.
 Fillback, H. E., Montfort.
 Wilde, E., 4624 Center St., Milwaukee.
 Winneman, W. J., 3426 North Ave., Milwaukee.
 Zurheide, H. O., 198 27th St., Milwaukee.

CHANGES IN ADDRESS

Smith, H. F., National Home—122 W. Washington Ave., Madison.

Avey, S. E., 1213 Richards St., Milwaukee—621 Stowell Ave., Milwaukee.

Johnstone, W. W., Racine—Box 421, Gallup, New Mexico.

Hoffman, Geo. H., 447 43rd Ave., Milwaukee—6202 Greenfield Ave., West Allis.

Tindall, F. G., Madison—Belleville.

Kissinger, C. A., Melrose—204 Grand Ave., Milwaukee.

Drake, Frank I., Madison—558 Jefferson St., Milwaukee.

Beier, Anton D., 1100 Burleigh St., Milwaukee—308 North Ave., Milwaukee.

Olson, Russell E., 425 E. Water St., Milwaukee—490 Broadway, Milwaukee.

Phelps, E. J., Elderon—209 Franklin St., Grand Haven, Mich.

Lee, M. A., 305 Truax Bldg., Superior—528 Tower Ave., Superior.

Kreuger, W. F., Burlington—3132 North Ave., Milwaukee.

Stemper, I. G., 545 Lincoln Ave., Milwaukee—Woodland Lane, Oconomowoc.

CORRESPONDENCE

July 21, 1924.

Mr. J. G. Crownhart,
 558 Jefferson Street,
 Milwaukee, Wisconsin.

Dear Mr. Crownhart:

The July number of the Wisconsin Medical Journal has just come in and I have been looking it over. As you know, this journal interests me particularly because at one time I had something to do with the editing of it.

I could not let slip this opportunity of congratulating you upon the journal. I am accustomed to say to my friends that it is the best state journal that I have seen. I also feel that it has made distinct improvement since it was turned over to the new regime. Keep the good work going. I hope you get many boosts and few kicks.

With kindest regards, I am

Cordially yours,

LMW:C

L. M. WARFIELD, M.D.

July 5, 1924.

Rock Sleyster,
 514 Wells Bldg.,
 Milwaukee, Wisconsin.

Dear Editor:

Will you be kind enough to give space sufficient in your esteemed periodical to bring to the attention of

former Illinois men and women now resident in your vicinity the matter of the "History of Medical Practice in Illinois" now being compiled under the sponsorship of the Illinois State Medical Society.

As this history will extend back through a period of 250 years you will readily understand the difficulty that besets attempts to secure data, both narrative and pictorial about the early Illinois Doctors. The enclosed literature will give you an idea of what is being attempted. Please use as much as you find possible and deem proper, with the assurance that at any future time the favor will be reciprocated. As we have only an extraordinarily brief time in which to get this material ready for the printer, the earliest possible publication will be appreciated.

Sincerely yours,
The Committee on Medical History,
Charles J. Whalen, M. D.,
Chairman.

Also Editor of the Illinois Medical Journal.

ATTENTION, FORMER ILLINOIS DOCTORS.

Will any and all doctors, former residents of Illinois, or descendants of pioneer physicians of the "Illinois country," communicate at once with the Committee on Medical History, Illinois State Medical Society, 6244 North Campbell Avenue, Chicago, Illinois?

Under the sponsorship of the Illinois State Medical Society there is in preparation "A History of Medical Practice in the State of Illinois" that must go to the printer at an early date. In order that this volume may be accurate and complete, all possible assistance is asked from every source, as to personal data and experiences, including diaries, photographs and similar documentary mementoes of pioneer Illinois doctors and of progressive phases of medical practice, as well as of achievements in fields other than those of medical science. Prompt return in good condition is promised for anything loaned the committee, the personnel of which is:

O. B. Will, M.D., Peoria, Ill.
C. B. Johnson, M.D., Champaign, Ill.
Carl E. Black, M.D., Jacksonville, Ill.
George A. Dicus, M.D., Streator, Ill.
James H. Hutton, M.D., Chicago, Ill.
Chas. J. Whalen, M.D., Chicago, Ill., *Chairman.*

The scope of the volume will range from the discovery of Illinois to modern times. Through this period of over 250 years there is much of thrilling interest to be detailed. Collection of the human interest data can come only from the families or closest friends of the pioneers, many of whom long ago removed to distant sections of the United States. Through the kindness of editors of various medical journals, it is hoped to reach those who may be able to loan valuable material to the compilers who guarantee careful guardianship of anything sent for publication.

Some of the subjects touched will be: Physicians accompanying early explorers; government surgeons and physicians in attendance at the forts; early medicine in Illinois; theories of healing from the days of the Aborigines through the mound-builders; French and

English explorers; the ante-boundary days; sporadic settlers; medical attendants for the covered wagon; herb doctors; primitive surgery; medicine and missionaries; migration of pioneer physicians to new territory; the "circuit-riding" and "saddle-bag" doctors and their burdens, triumphs and perils; pioneers as "utility citizens;" Illinois men in war time—there are four conflicts to be considered since the opening of the Nineteenth Century; Illinois medical men away from medicine, i. e., in industry, in science, in belles-lettres—art, music and literature.

Photographs especially are desired. Also copies of letters, statements of "cures" and "new methods," diaries and the like.

July 15, 1924.

Secretary State Medical Society,
L. Rock Sleyster,
Wauwatosa, Wis.
Dear Doctor:

I am compiling a book on the subject "The Doctor in Other Fields," and I wish to make it as representative of those of our American doctors who have attained fame in fields other than that of medicine, as I possibly can. Hence this letter.

I would appreciate it very much, if you would canvass your State Medical Society, for men who would be entitled to notice in such a book, and secure the pictures of such men, together with a history of their lives and accomplishments, and forward the same to me at your earliest convenience.

Thanking you in advance for the courtesy of an early response to this appeal, and urging this action upon you as a duty to the profession, I am,

Cordially and fraternally yours,
W. MOORE THOMPSON, M.D.

DOCTORS ENTER POLITICAL FIELD

Four Wisconsin physicians have announced themselves as candidates for public office. Dr. T. J. Toner, Kenosha, is a candidate for the State Senate in the 22nd Senatorial District comprising Kenosha and Walworth counties. Dr. Toner is a member of the State Medical Society.

Dr. R. B. Cunningham, Cadott, member of the state board of medical examiners, is a candidate for the State Senate in the 28th Senatorial District. This district comprises Eau Claire and Chippewa counties. Dr. Cunningham is a member of the State Medical Society.

Dr. A. J. McDowell, Soldiers Grove, is a candidate for the assembly from Crawford County. Dr. McDowell is a member of the State Medical Society.

In the tenth Congressional District, Dr. Clarence Michaelson, Baldwin, will oppose Congressman James A. Frear.

Delegates and Alternates Chosen for 1924 House of Delegates for Green Bay Meeting

Society	Delegates	Alternates
Ashland	M. S. Hosmer, Ashland	J. M. Dodd, Ashland
Barron-P-W-S-B	H. C. Wiger, Barron	D. L. Dawson, Rice Lake
Brown-Kewaunee	J. R. Minahan, Green Bay	E. G. Nadeau, Green Bay
Calumet	F. J. Fechter, Elkhart Lake	J. P. Graves, New Holstein
Chippewa	E. P. Ellenson, Chippewa Falls	L. A. Larson, Colfax
Clark	E. L. Bradbury, Neillsville	R. R. Rath, Granton
	S. M. Kyes, Owen	F. D. Jackey, Thorp
Columbia	A. F. Schuneling, Columbus	C. W. Henney, Portage
Crawford	A. J. McDowell, Soldiers Grove	W. W. Coon, Gays Mills
Dane	C. G. Dwight, Madison	W. T. Lindsay, Madison
	F. A. Davis, Madison	H. P. Greeley, Madison
Dodge	A. E. Bachhuber, Mayville	E. S. Elliott, Fox Lake
Door	F. C. Huff, Sturgeon Bay	G. R. Egland, Sturgeon Bay
Douglas	L. A. Potter, Superior	T. H. Shastid, Superior
Dunn-Pepin	F. E. Butler, Menomonie	Julius Blom, Menomonie
Eau Claire	G. C. Baird, Eau Claire	H. M. Stang, Eau Claire
Fond du Lac	D. N. Walters, Fond du Lac	J. J. Rehorst, Fond du Lac
Grant	C. A. Andrew, Platteville	J. H. Fowler, Lancaster
Green	J. F. Mauermann, Monroe	Edward Blumer, Monticello
Green Lake-W-A	W. E. Buckley, Red Granite	S. S. Hall, Ripon
Iowa	G. H. McCallister, Avoca	C. P. Banfield, Mineral Point
Jefferson	H. O. Caswell, Ft. Atkinson	W. S. Waite, Watertown
Juneau	C. C. Vogel, Elroy	
Kenosha	G. H. Ripley, Kenosha	C. G. Richards, Kenosha
	G. Windesheim, Kenosha	
La Crosse	G. J. Egan, La Crosse	E. H. Townsend, La Crosse
Lafayette	P. W. Leitzell, Benton	H. O. Shockley, Darlington
Langlade	J. C. Wright, Antigo	E. G. Moore, Antigo
Lincoln		
Manitowoc	J. E. Meany, Manitowoc	C. M. Gleason, Manitowoc
Marathon	L. E. Spencer, Wausau	S. M. B. Smith, Wausau
Marinette-Florence	A. T. Nadeau, Marinette	J. W. Boren, Marinette
Milwaukee	J. J. Seelman, Iron Blk.	G. J. Kaumheimer, 308 North Avenue
	M. L. Henderson, Wells Bldg.	W. Malone, 114 Grand Avenue
	S. R. Mitchell, 521 Grand Avenue	C. Beebe, Wells Bldg.
	F. Pfister, 221 Grand Avenue	W. V. Nelson, 149 Lincoln Avenue
	J. W. Hanson, Palace Theatre Bldg.	W. C. F. Witte, 221 Grand Avenue
	R. W. Blumenthal, M. & M. Bldg.	W. Egan, 141 Wisconsin Street
	S. Higgins, Wells Bldg.	F. Petersen, Wauwatosa
	F. Thompson, 425 E. Water Street	E. W. Miller, 217 Sycamore Street
	H. Heeb, Loan & Trust Bldg.	W. Jobse, 521 51st St.
Monroe	H. H. Williams, Sparta	T. J. Sheehy, Tomah
Oneida-F-V	C. A. Richards, Rhinelander	T. B. McIndoe, Rhinelander
Oconto	C. J. Ouellette, Oconto	C. W. Stoelting, Oconto
Outagamie	M. J. Sandborn, Appleton	E. F. Mielke, Appleton
Pierce	J. M. Conway, Spring Valley	Rolla Cairns, River Falls
Portage	F. A. Southwick, Stevens Point	J. D. Lindores, Stevens Point
Price-Taylor	L. S. Dietrich, Medford	F. W. Mitchell, Ogema
Racine	J. S. Keech, Racine	C. O. Schaefer, Racine
Richland	G. Jamieson, Lone Rock	George Parke, Viola
Rock	W. A. Munn, Janesville	Wm. Allen, Beloit
Rusk	W. F. O'Connor, Ladysmith	J. C. Baker, Hawkins
Shawano	C. E. Stubenvoll, Shawano	E. L. Schroeder, Shawano
Sauk	L. W. Sayles, Baraboo	Ed. McGrath, Baraboo
Sheboygan	Otho Fiedler, Sheboygan	Arthur J. Knauf, Sheboygan
St. Croix		
Trempealeau-J-B	H. A. Jegi, Galesville	Wm. Belitz, Cochrane
Vernon	F. E. Morley, Viroqua	C. H. Trowbridge, Viroqua
Walworth	E. J. Fucik, Williams Bay	N. F. Crowe, Delevan
Washington-O	Geo. Savage, Pt. Washington	H. Albers, Allenton
Waukesha	A. W. Rogers, Oconomowoc	Floyd W. Aplin, Waukesha
Waupaca	T. E. Loope, Iola	F. E. Chandler, Waupaca
Winnebago	R. B. Rogers, Neenah	J. M. Hogan, Oshkosh
Wood	F. X. Pomainville, Wisconsin Rapids	Karl W. Doege, Marshfield

All in Readiness at Green Bay for 78th Annual Meeting; Large Attendance Anticipated

IMPORTANT MEETING

It is hoped that all members at the meeting will attend the general smoker for the discussion of socio-medical problems. This smoker will be held at Hotel Northland at 8:15 sharp, Wednesday evening, August 20th.

With just the last minute details to finish, members of the Brown-Kewaukee County Medical Society have all arrangements completed for the 78th Annual Meeting of the State Society. Everything possible has been done that the meeting may be a complete success from every angle. From the time the visiting member reaches the city limits of Green Bay to the time he leaves, plans have been made for his every need, his entertainment, and his welfare.

The meeting opens Tuesday evening, August 19th, with the first meeting of the House of Delegates at Hotel Northland. This meeting is scheduled for seven-thirty and will give the delegates an opportunity to complete the major part of the business that evening so as not to interfere with their attendance at the scientific sessions.



MARKER AT THE SITE OF FORT HOWARD

The meeting proper opens at nine Wednesday morning, August twentieth, at Bay View Beach. The building will be opened at eight to permit registration before the first scientific session opens. The East Hall of the building will house all the scientific sessions. The West Hall has been reserved for the thirty-one commercial-scientific exhibits and the Registration Booth. All sessions will open at nine and at two with the sole excep-



NEW NORTHLAND HOTEL

tion of the program Thursday morning which will start promptly at eight-thirty.

OUT-OF-STATE GUESTS

Guests from out of the state who will appear on the program include Lt. Col. Harry L. Gilchrist, Washington, D. C.; Dr. C. A. Hamann, Prof. of Surgery and Dean of Western Reserve University, Cleveland; Dr. Frank Smithies, Prof. of Medicine, University of Illinois, Chicago; Dr. Justin M. Waugh and Dr. George W. Crile, Cleveland Clinic, Cleveland; Dr. B. H. Orndorf, Prof. of Roentgenology, Loyola University, Chicago, and Dr. E. S. Judd, Mayo Clinic, Rochester, Minnesota.

HOTEL RESERVATIONS

Dr. R. C. Buchanan, Green Bay, will make any hotel reservations that may be desired by the members. Please advise him how many, accommodations desired, and date of arrival.

An innovation for the Green Bay meeting will be the general smoker at Hotel Northland at eight-fifteen Wednesday evening for the discussion of socio-medical questions and the policies of the Society. Dr. William C. Woodward, Secretary of the Bureau of Legal Medicine and Legislation of the American Medical Association will tell of the work of the Bureau. Mr. J. G. Crownhart, Executive Secretary of the Society, will speak on the work of the full time secretary and of proposed plans for the future activities of the Society. Following these two talks the meeting will be opened for a general discussion by the entire membership.



BAY VIEW BEACH MUNICIPAL BUILDING, GREEN BAY.

This building will house all scientific sessions and the commercial-scientific exhibit.

PRESIDENT'S ADDRESS AT BANQUET

Dr. Rock Sleyster, President of the Society, will present the annual presidential address at the banquet given at Hotel Northland on Thursday evening. Following the address dancing and cards will complete the evening entertainment.

For those members who are devotees of the outdoor life there will be swimming, canoeing, sailing, golf and auto tours to the many historic spots in and around Green Bay.

Free auto parks and garage accommodations have been arranged for the convenience of those members who drive to the meeting. Dr. P. M. Clifford will be at Hotel Northland to assign space and provide maps of the city and information for the incoming guests. An extensive and modern tourist camp is operated by the city just to the west of the Bay View Beach building and will provide excellent facilities for members desiring to enjoy camping out on the bay front.

SPECIAL ENTERTAINMENT FOR WIVES

Wives of the members are to enjoy a special program of their own arranged for their entertainment by a committee including the wives of all members of the Brown-Kewaunee County Medical Society. The members are accordingly urged to make the meeting an occasion for a general family outing and vacation.

MICHIGAN MEMBERS INVITED

Personal invitations to attend this meeting as guests of the Wisconsin Society have been sent all members of the Michigan State Medical Society

LUNCHEON FOR SECRETARIES

A luncheon to which all secretaries of county societies, officers of the state society, and councilors are invited, will be held on the second floor of the Bay View Beach Building, Wednesday, at 12:15 noon. This annual luncheon is given to afford an opportunity for the officers to meet and discuss informally their problems and plans.

who reside upon the Upper Peninsula. Because of the convenient transportation facilities to Green Bay, it is anticipated that a large group of the Michigan members will attend the sessions.

A second innovation at this meeting will be the special luncheons for college groups to be held Thursday noon. Special luncheons have been arranged for the alumni of Chicago P. and S., Marquette, Rush and Northwestern. The arrangements for these luncheons have been made by local alumni of the several schools. The places where they will be held follows:

ALUMNI LUNCHEONS

Chicago P. and S.—Northland Hotel.

Marquette—Bay View Beach Pavilion.

Rush—To be announced in final program.

Northwestern—Beaumont Hotel.

Excellent restaurant facilities are available in the Bay View Beach building so that it will not be necessary for members to return to the city at noon unless they so desire.

“Green Bay and members of the Brown-Kewaunee County Medical Society deem it a very real



HARBOR ENTRANCE

privilege to provide the facilities for this 78th Annual Meeting of our State Society," says Dr. J. J. Robb, President of the County Society. "The scientific program, the special meeting for the discussion of problems of the Society, and the entertainment plans have all been formulated with but one end in view—to comprise a meeting that will more than justify your attendance.

"We want the largest attendance in the history of the Society and we will be there to greet you whether you arrive by train or automobile."

in blue and tan in accordance with the design shown above. Each card, located on the lawns or curb, is a standing invitation to the members to come in and enjoy an "open house." Visiting members are urged to watch for the cards and to "forget the time and walk right in."

SCIENTIFIC SESSIONS

Bay View Beach Municipal Building

Wednesday, August 20th

9:00 A. M. Morning Session opens.

- A MICRO FOLIN-WU METHOD OF BLOOD SUGAR ESTIMATION, USING ONE-TENTH C.C. BLOOD..... T. L. Byrd, Milwaukee
Discussion opened by E. L. Tharinger, Milwaukee.
- FULGURATION IN THE TREATMENT OF CANCER AND PRECANCEROUS CONDITIONS T. W. Nuzum, Pember-Nuzum Clinic, Janesville
- SURGICAL DIATHERMY IN THE TREATMENT OF MALIGNANT LESIONS OF THE BUCCAL CAVITY AND SKIN.. Francis B. McMahon, Milwaukee
- HOW CAN WE BETTER OUR CANCER RESULTS?..... W. E. Ground, Superior
- A MORE HOPEFUL VIEW OF CANCER WITH SPECIAL REFERENCE TO GASTRIC CANCER..... K. W. Doege, Marshfield Clinic, Marshfield

2:00 P. M. Afternoon Session opens.

- THE USE OF CHLORINE GAS IN THE PREVENTION AND TREATMENT OF CERTAIN RESPIRATORY DISEASES, WITH DEMONSTRATION OF CHLORINE GAS EJECTOR..... Lt. Col. Harry L. Gilchrist, M. C., U. S. A., Chief of Medical Division, Chemical Warfare Service
Discussion opened by Gilbert E. Seaman, Milwaukee.
- SURGICAL SHOCK: TREATMENT BASED UPON PATHOLOGICAL PHYSIOLOGY..... Col. Myron Snell and Dr. David Fisher, U. S. P. H. S., Milwaukee.
- COMPLICATIONS OF SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR..... R. C. Smith, Superior
Discussion opened by W. E. Grove, Milwaukee.



LOCAL MEMBERS OPEN HOMES

"The home of every member in Green Bay will be open night and day."

Such is the announcement received from Green Bay as this Journal goes to press. The homes of the members will all be designated by a marker

CATARACT OPERATIONS BY SUCTION, THE BARRAQUER METHOD.....Samuel G. Higgins, Milwaukee
 Discussion opened by F. H. Haessler, V. A. Chapman, and G. I. Hogue, Milwaukee.
 THE ACTION OF TRYPARSAMID ON THE OPTIC TRACT..... E. E. Neff, Dwight and Davis Clinic, Madison

SOME PROBLEMS IN THE DIAGNOSIS OF PERNICIOUS ANEMIA.....T. L. Szlapka, Milwaukee
 STANDARDIZATION IN DIGITALIS MEDICATION..... E. F. Bickel, Oshkosh Clinic, Oshkosh
 CHRONIC CERVICITIS AND ENDOCERVICITIS (Illustrated).....Carl Henry Davis, Milwaukee
 RELATION OF URETERAL STRICTURE TO RENAL CALCULI.. W. G. Sexton, Marshfield Clinic, Marshfield
 RECENT PROGRESS IN THORACIC SURGERY.....Carl A. Hedblom, Chief Surgeon, State General Hospital, Prof. of Surgery, University of Wisconsin, Madison



BEAUMONT HOTEL

Thursday, August 21st

8:30 A. M. Morning Session opens.

LOWERING THE THRESHOLD OF OPERABILITY FOR PROSTATISM.....J. C. Sargent, Milwaukee
 REPAIR OF THE INTERNAL RING IN OBLIQUE INGUINAL HERNIA..... F. Gregory Connell and C. J. Combs, Oshkosh Clinic, Oshkosh
 TYPES OF FRACTURES SUITABLE FOR OPEN OPERATIONS.....Joseph F. Smith, Wausau
 THE USE OF OX-BONE IN THE OPEN METHOD TREATMENT OF FRACTURES.....Wilson Cunningham, Platteville
 PRESERVATION OF FUNCTION AFTER ACCIDENTS TO THE FEET.....J. M. Dodd, The Clinic, Ashland
 SURGERY OF THE BILARY PASSAGES..... C. A. Hamann, Prof. of Surgery and Dean, Western Reserve University, Cleveland, Ohio

11:15 A. M. See Exhibits



ST. MARY'S HOSPITAL

2:00 P. M. Afternoon Session opens.

THE MODERN MEANING OF BILIOUSNESS, ITS DIAGNOSIS AND MANAGEMENT.....Frank Smithies, Prof. of Medicine, University of Illinois, Chicago



THE OLD LIGHHOUSE, BUILT IN 1848

Friday, August 22nd

9:00 A. M. Morning Session opens.

SURGICAL PROBLEMS IN THE MANAGEMENT OF TOXIC GOITER...Arnold S. Jackson, Jackson Clinic, Madison
 CLINICAL STUDIES OF HEART ACTION IN GOITER, BEFORE AND AFTER THYROIDECTOMY..... Karl K. Borsack, Wiley-Smith Clinic, Fond du Lac
 THE IMPORTANCE OF EARLY RECOGNITION OF SERIOUS ESOPHAGEAL LESSIONS.....Justin M. Waugh, Chief, Ear, Nose and Throat Dept., Cleveland Clinic, Cleveland, Ohio
 HYPERTHYROIDISM AND HYPERACIDITY—AN ANALOGY.. George W. Crile, Cleveland Clinic, Prof. of Surgery, Western Reserve Univ., Cleveland, Ohio
 DESICCATED SPLEEN AND RED BONE MARROW IN THE TREATMENT OF ANEMIA.....J. S. Evans and C. D. Leake, Medical School, Univ. of Wis., Madison.



DEACONESS HOSPITAL

2:00 P. M. Afternoon Session opens.

- ULCERS OF THE STOMACH AND DUODENUM
 E. S. Judd, Mayo Clinic, Rochester, Minn.
- THE DIAGNOSIS AND SIGNIFICANCE OF THE PATHOLOGICAL APPENDIX (X-ray Illustrations) B. H. Orndorf, Prof. of Roentgenology, Loyola Univ., Chicago
- PULMONARY EMBOLUS
 W. J. Tucker, The Ashland Clinic, Ashland
- SYPHILIS OF THE AORTA
 E. L. Miloslavich, Prof. of Pathology, Marquette University School of Medicine, Milwaukee
- SOME NOTES ON THE TREATMENT OF SYPHILIS
 James A. Evans, Peter Bent Brigham Hospital, Boston, Mass.
- FISTULAE OF THE BLADDER
 Cyril G. Richards, Kenosha Clinic, Kenosha

LADIES' ENTERTAINMENT ARRANGED

The following special program has been arranged for the entertainment of the ladies who attend the Green Bay meeting:

WEDNESDAY, AUGUST 20.

RECEPTION DAY.

2 P. M.—Kellogg Public Library and Green Bay Public Museum—Special display of interesting articles belonging to Dr. William Beaumont and other early physicians of Wisconsin.

Choice paintings and works of Art in Library.

The Beaumont Homestead where the Misses Beaumont, granddaughter of Dr. William Beaumont reside.

Club House of the Green Bay Woman's Club.

The Catholic Woman's Club—Day Nursery.



ST. VINCENT'S HOSPITAL

Drive to "Braebourne," residence of Dr. and Mrs. Robert L. Cowles, on the site of historic Camp Smith—Garden Fete—4 o'clock.

THURSDAY, AUGUST 21.

11:30 A. M.—Reception by the Antiquarian Society, at Porlier-Tank Cottage, the oldest house now standing in Wisconsin.

Drive along Fox River passing the marker erected by the D. A. R. to Ashwaubemie—the celebrated Indian Chief and Waugenuqua (morning star), passing the monument erected to Father Claude Allouez and the Mission to St. Francis Xavier, to the Fox River Country Club for Luncheon—at 1 o'clock.

Golf—Tennis—Cards.

4 o'clock.—Drive to the Judge Morgan L. Martin home—built in 1838—filled with the handsome, old, original furnishings.

FRIDAY, AUGUST 22.

2 P. M. Drive along the shore of Green Bay to Kishke-kwan-te-no (the place that slopes to the Cedars), officially known to mariners as Red Banks. Here is the monument erected to Jean Nicolet, the first white man to come as far west in 1634.

Stopping on return trip for tea at Adair Farms—the country seat of Dr. and Mrs. J. R. Minahan—passing the new Y. W. C. A. Camp—and on to Bay Beach, the finest municipal beach in Wisconsin.

DOUBLE FEE HELD LEGAL

The present rulings of the state prohibition commission with respect to permit fees for the purchase, prescribing, and use of alcoholic beverages were all upheld by the Attorney General in an opinion handed down this month. Under the opinion the Commissioner is acting within the law in charging a separate permit fee of \$10 for each of the following privileges:

1. To issue prescriptions.
2. To purchase liquor for emergency medicinal purposes.
3. To purchase alcohol for other than sterilization purposes.

The State Medical Society contended through counsel that liquor purchased for emergency medicinal purposes was in effect the same as issuing a prescription and that one fee of \$10 should cover both privileges. This contention was denied by the Attorney General.

No further action in this matter will now be taken until the convening of the 1925 legislature. At that time an effort will be made to change the state law to conform to the federal law on this subject.

Thirty-two Booths Erected to House Commercial-Scientific Exhibits; State Society Has Booth

With reservations made for each of the thirty-two booths in the Exhibit Hall at Bay View Beach, the 1924 commercial-scientific exhibit will be one of the most complete in the history of the Society. Contracts have been let for the building and decorating of the booths and the hall will prove an attraction well worth repeated visits when opened Wednesday morning, August twentieth.

For the first time an entire booth has been reserved by the Society itself and will be used to display the various activities of the state organization. It is hoped that every member in attendance at the meeting will visit the booth.

The booth assignments in accordance with the diagram of the hall on the opposite page are:

1. Mellin's Food Company, Boston, Mass.
2. Abbott Laboratories, Chicago, Ill.
3. Horlick's Malted Milk Company, Racine, Wis.
4. C. V. Mosby Company, St. Louis, Mo.
5. Kremers-Urban Company, Milwaukee, Wis.
6. The Medical Protective Company of Fort Wayne, Ind.
7. Registration Booth.
8. Frank S. Betz Company, Hammond, Ind.
9. Mead-Johnson Company, Indianapolis, Ind.
10. John McIntosh Company, Chicago and Milwaukee.
11. Wisconsin Anti-Tuberculosis Association.

12. Wisconsin Anti-Tuberculosis Association.
13. State Medical Society of Wisconsin.
14. The Engeln Electric Company, Chicago, Ill.
15. E. H. Karrer Company, Milwaukee, Wis.
16. Pengelly X-Ray Company, Minneapolis and Milwaukee.
17. Dry Milk Company, New York and Columbus, Wis.
18. Huston Brothers Company, Chicago, Ill.
19. Wallace and Tiernan Company, Newark, N. J.
20. G. D. Searle Company, Chicago, Ill.
21. Hygeia.
22. University of Wisconsin.
23. O. Carliczek and Company, Chicago, Ill.
24. W. B. Saunders Company, Philadelphia, Penn.
25. H. G. Fischer and Company, Chicago, Ill.
26. Roemer Drug Company, Milwaukee, Wis.
27. DeVilbiss Manufacturing Company, Toledo, Ohio.
28. National Research Laboratories, Pittsburgh, Penn.
29. Midwest Laboratories, Chicago, Ill.
30. Radium Institute of Green Bay, Wis.
31. Radium Chemical Company, Pittsburgh, Penn.
32. Hanovia Chemical and Manufacturing Company, Newark, N. J.

Construction and decoration of the booths will be finished before noon on Tuesday, the nineteenth, and exhibits will be erected Tuesday afternoon. All will be in readiness for its opening at eight Wednesday morning. The hall will be decorated in shades of blue and tan.

Hall in which all Scientific Sessions will be held.

New Type of Scientific Exhibit for Annual Meeting: Unusual Service Offered Members

BY OSCAR LOTZ, M.D.,
MILWAUKEE.

Of course some of the wise and gray-topped veterans of the medical profession will probably claim that there is nothing new under the sun. Right-o. I agree. Nevertheless, while the plan we are going to tell you about is not really and truly new, say for instance for an A. M. A. meeting—for a state medical meeting we have every reason to believe that it has not been carried out before.

The idea came from the following experiences:

Not a day passes but what the mail of the W. A. T. A. brings in a number of letters from patients suffering from tuberculosis, from relatives, from their friends, perhaps from a public health nurse or again from a physician, asking for help and advice regarding some question involving the care of the tuberculous. In these letters all kinds of ques-

tions are asked. One individual will describe symptoms, such as cough, pain in chest, night sweats, etc., and want us to tell whether he has or has not consumption. Another letter may be from a relative of a patient who wants to know how to safe-guard the rest of the family from contracting the disease; a third from a public health nurse who desires some literature on home treatment for a patient who refuses to go to a sanatorium; a fourth from a doctor who may want some recent literature on the diagnosis of tuberculosis and who also wants to know to what sanatorium he can send his patients. Another physician will request a copy of the examination chart of one of his patients seen at one of the W. A. T. A.'s recent clinics. And so it runs along from day to

day—the people of Wisconsin asking the questions, and the staff of the W. A. T. A. doing its level best to answer them and to give service.

This of course is all done by correspondence and is probably under the conditions, one of the best means of spreading knowledge into all parts of the state. Spreading knowledge 'tis true, but on the other hand don't forget we are also on the job gleaning all the information concerning tuberculosis in Wisconsin upon which we can lay our hands, eyes or ears. In other words, this is a strictly mutual proposition—it's our business to give freely but in order to do so we must also receive—therefore the new venture.

The W. A. T. A., ever anxious to be a few steps ahead of everybody else in the tuberculosis prevention game, is now going to try a new undertaking, namely, instead of answering these many questions by correspondence, why not at least for a few days, go directly to the medical profession so that many of the questions may be answered verbally and perhaps more clearly by demonstration? In order to do this the Association is going to move its clinical and medical departments to Green Bay during the three days of the State Medical Society session. The records of all the patients who have been examined at the clinics during the last several years will be there. Miss Durbin, one of the workers for several years, will be on hand to find

any record you may wish or to give you any information regarding the follow-up work which would be of value to the patient in question.

In another part of the booth we will have a stereoscope, with films showing various stages of pulmonary tuberculosis and one of the physicians of the staff will be on hand to explain or interpret these films. Charts assisting in the diagnosis of tuberculosis, as well as some showing the sociological aspects of the disease will be on hand for ready reference, and your study if you so desire. We also hope to have some gross pathological specimens showing the condition present and possibly comparing them with physical findings before death.

In other words, the Association is attempting to bring to the medical profession that which should be of interest to every practicing physician. Some medical member of the staff will be on hand all the time either to explain the various exhibits, to answer questions or to assist the physicians in solving some of those knotty problems with which all of us have to contend.

The Association invites the medical profession of Wisconsin to take advantage of this opportunity and to cooperate to the end that this little venture may be but the beginning of a group of scientific exhibits, which as the present time make the A. M. A. meetings so very valuable.

One Hundred Seventeen Licensed in Wisconsin By State Board of Medical Examiners

One hundred and eleven physicians and surgeons and six osteopaths have just been admitted to practice in Wisconsin following announcement of

the results of the June examinations. The list of successful applicants as compiled by Dr. R. E. Flynn, La Crosse, follows:

EXAMINATIONS

NAME	SCHOOL OF GRADUATION	HOME
1. Armstrong, Joshua H.	Marquette	New Richmond, Wis.
2. Bernhardt, Edmund L.	Rush	Wilton, Wis.
3. Biehler, Edwin P.	Marquette	Milwaukee, Wis.
4. Biller, Saul E.	Marquette	Milwaukee, Wis.
5. Borchardt, Melvin A.	Marquette	New London, Wis.
6. Bruns, Dennis H.	Heidelberg	Milwaukee, Wis.
7. Brussoek, Walter A.	Marquette	Milwaukee, Wis.
8. Byrnes, Maurice B.	Marquette	Milwaukee, Wis.
9. Cairns, James M.	Marquette	Ligonier, Pa.
10. Campbell, Everette L.	Rush	Madison, Wis.
11. Carlo, Ernest R.	Gen. Med. College.	Milwaukee, Wis.
12. Collins, Samuel J. B.	Bennet Medical School.	Milwaukee, Wis.
13. Cook, Emmett F.	Marquette	Milwaukee, Wis.
14. Corr, William P.	Rush	Juneau, Wis.
15. Coueh, Timothy T.	Marquette	West Allis, Wis.
16. Cowin, Abe. W.	Illinois School of Med.	Milwaukee, Wis.
17. Evans, Edward T., Jr.	Harvard	La Crosse, Wis.
18. Farrell, Charles Vincent.	St. Louis U.	Milwaukee, Wis.
19. Feinberg, David D.	Gen. Med. College.	Bayonne, New Jersey.
20. Fetherston, John P.	Marquette	Milwaukee, Wis.
21. Flatz, George H.	University of Pennsylvania.	Milwaukee, Wis.
22. Frawley, Donald D.	Marquette	Appleton, Wis.
23. Friedman, Hyman	Gen. Med. College.	Green Bay, Wis.
24. Gold, Sidney S.	Gen. Med. College.	Milwaukee, Wis.
25. Grill, John	University of Vienna.	Milwaukee, Wis.
26. Grinn, Emery G.	University of Vienna.	Milwaukee, Wis.
27. Hadden, Merle R.	Gen. Med. College.	Kenosha, Wis.
28. Harper, Charles W.	Marquette	Milwaukee, Wis.

29. Haug, John F.	Marquette	Milwaukee, Wis.
30. Heller, Samuel	Gen. Med. College	Milwaukee, Wis.
31. Herron, Richard A.	Marquette	Milwaukee, Wis.
32. Hudson, Robert J.	Marquette	Madison, Wis.
33. Hunsong, Adolph	Gen. Med. College	Marshfield, Wis.
34. Jenner, Jacob A.	Marquette	Milwaukee, Wis.
35. Juster, Eugene M.	University of Michigan	Madison, Wis.
36. Kauffman, Samuel H.	Gen. Med. College	Madison, Wis.
37. Knowlton, Florence E.	Tufts Med. College	Sparta, Wis.
38. Lindner, Albert M.	Marquette	Marshfield, Wis.
39. Looze, Joseph A.	Marquette	Green Bay, Wis.
40. Madison, Fred W.	Columbia	Milwaukee, Wis.
41. McCormick, Francis X.	Marquette	Milwaukee, Wis.
42. McDonald, Clarence F.	Marquette	Milwaukee, Wis.
43. Moon, John F.	University of Illinois	Madison, Wis.
44. Morris, Kyrle A. S.	Marquette	Merrill, Wis.
45. Mueller, Joseph F.	Marquette	Milwaukee, Wis.
46. Murphy, James A.	Marquette	Madison, Wis.
47. Nelson, Glenn S.	Gen. Med. College	Chicago, Ill.
48. O'Connell, Franklin T.	Marquette	Milwaukee, Wis.
49. O'Leary, Elmer B.	Marquette	Appleton, Wis.
50. Pamtti, Harold E.	Marquette	Milwaukee, Wis.
51. Perlson, Phillip H.	St. Louis U.	Milwaukee, Wis.
52. Pierce, Dennis F.	Marquette	Milwaukee, Wis.
53. Prince, Samuel	Gen. Med. College	Brooklyn, N. Y.
54. Raine, Forrester	Boston U.	Milwaukee, Wis.
55. Reilly, Leo J.	St. Louis U.	Milwaukee, Wis.
56. Robinson, Howard P.	University of Toronto	Milwaukee, Wis.
57. Ryan, Carlton J.	Marquette	Wauwatosa, Wis.
58. Sanford, Joseph A.	Marquette	Milwaukee, Wis.
59. Scharf, Lewis E.	Gen. Med. College	Milwaukee, Wis.
60. Scorgie, Helen C.	Tufts	Milwaukee, Wis.
61. Shayne, David M.	University of Illinois	Milwaukee, Wis.
62. Solar, Burton A.	Gen. Med. College	Milwaukee, Wis.
63. Stockl, Anton	Gen. Med. College	Milwaukee, Wis.
64. Stueckl, John C.	University of Indiana	Indianapolis, Ind.
65. Tippet, Walter P.	University of Illinois	Milwaukee, Wis.
66. Toepfer, Raymond A.	University of Illinois	Milwaukee, Wis.
67. Tounignant, Albert N.	Marquette	North Milwaukee, Wis.
68. Tufts, Millard	Marquette	Milwaukee, Wis.
69. Van Ellis, Lester A.	Marquette	Milwaukee, Wis.
70. Werba, Daniel R.	Rush	Waukesha, Wis.
71. Werra, Martin J.	Marquette	Cedarburg, Wis.
72. Wiesler, Howard M.	St. Louis U.	Milwaukee, Wis.
73. Willets, Jack B.	Marquette	Milwaukee, Wis.
74. Wyatt, Fred H.	Gen. Med. College	Milwaukee, Wis.
75. Zintek, Sylvester S.	Marquette	Milwaukee, Wis.
76. Vajda, Adalbert B.	U. "Comenianac"	Milwaukee, Wis.
77. Schunzel, Louis G. A.	Hungary	
	Leipzig U.	Milwaukee, Wis.

RECIPROCIITY

1. Anthony, Ernest J.	Iowa U.	Strawberry Point, Ia.
2. Austin, William T.	University of Tennessee	Chippewa Falls, Wis.
3. Barbour, Michael A.	Temple U. Pa.	Cleveland, Ohio.
4. Bauer, Carl P.	Rush	Madison, Wis.
5. Beckman, Harry	Louisville U.	Milwaukee, Wis.
6. Clayton, Festus	Meharry	Madisonville, Ky.
7. Davis, Wanzie A.	Meharry	Nashville, Tenn.
8. Dockry, Lyman E.	Marquette	Kewaunee, Wis.
9. Easton, Milo T.	Northwestern	Peoria, Ill.
10. Easton, Sidney H.	University of Chicago	Peoria, Ill.
11. Fisk, William B.	Northwestern	Chicago, Ill.
12. Freymiller, Ernest F.	University of Minnesota	Cloverton, Minn.
13. Gallaher, David M.	University of Iowa	St. Paul, Minn.
14. Grant, James A.	Meharry	Chicago, Ill.
15. Griswold, Lincoln B.	Loyola U.	Aurora, Ill.
16. Haddow, Norval W.	University of Minnesota	Chippewa Falls, Wis.
17. Hill, Ben S.	Jefferson	Stanford, Ky.
18. Hombach, Leo J.	Creighton U.	Milwaukee, Wis.
19. Hutchinson, Charles J.	University of Minnesota	Kenosha, Wis.
20. Krumpelbeck, Albert C.	Med. College of Ohio	Niagara, Wis.
21. Love, George R.	University of Illinois	Chicago, Ill.
22. Lowe, Roy C.	Hahnemann	Fairmont, Minn.
23. Luban, Simon W.	Rush	German Valley, Ill.
24. Medley, Seth R.	University of Oklahoma	Haugen, Wis.
25. Neidhold, Carl D.	Northwestern	Chicago, Ill.
26. Ostrander, Arley J.	Hamline Med.	Chetek, Wis.
27. Perkins, Chester H.	University of Illinois	Harvard, Ill.
28. Satter, Olaf E.	Loyola U.	Chicago, Ill.
29. Schwartz, Gilbert J.	Rush	Chicago, Ill.
30. Simenstad, Lien O.	Rush	St. Paul, Minn.
31. Stern, William	Rush	Chicago, Ill.
32. Stinson, Estelle J.	Hahnemann	Fort Atkinson, Wis.
33. Davis, John Dwight	University of Illinois	Wauwatosa, Wis.
34. Prentiss, Pearce	Baltimore Med. College	Jefferson, Wis.

EXAMINATION

1. Baldwin, Paul E.	Chicago College of Osteo.	Escanaba, Mich.
2. Fry, Robert A.	Chicago College of Osteo.	Belvidere, Ill.
3. Kehr, John D.	Chicago College of Osteo.	Chicago, Ill.

RECIPROCIITY

1. Larson, Casper L.	American School of Osteo.	Zumbrott, Minn.
2. Moffat, Lillian M.	Pacific College of Osteo.	Los Angeles, Calif.
3. Sliker, Walter	Chicago College of Osteo.	Canton, Ohio.

CHIROPODISTS

1. Fehring, Emil W.	Illinois College of Chiropody	Chicago, Ill.
2. Greenwald, Wm. R.		Chippewa Falls, Wis.
3. Langer, Otto J.	Illinois College of Chiropody	Chicago, Ill.



I believe this writer has made it clear in previous articles under this department that he is not a physician. He is supposed, through long and intimate contact with all types and conditions of physicians, to have acquired some understanding of the physician's problems, his contact having been both business and social.

Because of this interest it follows that we—the we used editorially as befits kings, editors and men with tapeworms—have enjoyed following the medical literature with perhaps as much care and attention as the average physician gives to it.

I have noted a new tendency of late and one that seems to be in danger of being overdone, as is the American custom. Looking back some years I recall that there was a time when the medical journal devoted itself entirely to subjects of medical and surgical practice, interspersed with a few personal notes, notices of births, deaths and marriages from one to six months old. No attention whatsoever was given to the business or personal sides of the practice of medicine.

This was wrong of course, as someone discovered a few years ago, and began correcting. The job has been done so thoroughly that we have now reached the point in many medical journals where there is danger that discussions of how to collect bad debts, and what to do about your bookkeeping is in danger of crowding the scientific or clinical subject right out of the book.

Perhaps this may sound queer coming from this particular department, which devotes itself entirely to the physician's business interests and his personal relationships, but note this, that in this particular journal, discussion of business subjects is confined almost entirely to this department.

A little cascara is very fine, a bowl full would be something else again. A sense of balance is a splendid thing, not always easily maintained. Blondin acquired the knack of physical balance to

the point where he strolled across a wire stretched over Niagara Falls with as little concern and apparent danger as you or I would be under in attempting to cross Michigan Boulevard at high noon.

By all means keep your discussions of the sides of the physician's life not immediately concerned with the scientific features of his profession, but in Heaven's name don't devote all your medical reading to more or less interesting discussions of how Dr. Collectem of Podunk, Missouri, gets ninety-nine and ninety-nine one-hundredths of his accounts collected, or dissertations on how long to carry a delinquent patient.

There is room and place for discussions of physician's business. He is entitled to collect his accounts and should do so. He has been lamentably weak in the past in caring for these collections, which is inexcusable. No patient has any more right to expect free medical care than free groceries, unless he is destitute in which case our modern civilization attempts to see that he gets both.

But when we begin filling our medical journals with discussions of how far we should go before cutting a patient off from our medical services, we tread on dangerous ground. The fact is that the true professional man will always answer the call of the suffering whether or not that call shall accrue to his financial gain. The average physician can be counted upon to handle each situation with tact and understanding. If the patient is truly unable to pay, the physician will minister gladly or make such arrangements for free care as the community affords. If the patient is able to pay, but has a loose conscience or has been so thoroughly inoculated with the virus that "the doctor's bill is always paid last" that he just lets it slide, the proper amount of firmness will serve to set the patient right. As the latter type of case is generally well known to all physicians, this

firmness should be practiced at the right time, which is when the physician comes onto the case. A clear understanding of what is due you and what you will expect will go far to clear the air, and give the patient a respect for your business principles.

So much for that. The time of the medical conventions approacheth, beginning with your own state convention this month.

It is an excellent thing to attend conventions occasionally—not alone for the things that you will get within the convention hall, but those that

you get without. The meeting with old friends; the greeting of classmates of school days; the chance to meet your local competitor on neutral ground without the necessity of making faces at him; the few days of relaxation and freedom from the annoyances and worries of your practice—these and a dozen other considerations make the journey to the convention worth while.

You will return refreshed and a better man, physically and professionally, regardless of whether you remember a single word of the many worthy papers that will embellish the program.

Hickory Grove Sanatorium at De Pere Conducts School Work For Both Children and Adult Patients

BY MRS. RUTH MacMILLAN,
WISCONSIN ANTI-TUBERCULOSIS ASSOCIATION

Having tuberculosis is undoubtedly a bad business, but it needn't take all the joy out of life and put one way behind one's normal class in school. At least that is what the eight or ten kiddies "taking the cure" at Hickory Grove, the Brown county tuberculosis sanatorium, have found. They go to school right at the sanatorium and have graduation exercises 'n everything. Going to school when you're perfectly well and can run about and play is one thing, but when there are long hours of enforced idleness and when there is not very much to break the monotony of the day, it's an entirely different matter.

Hickory Grove was the first county sanatorium, with the exception of Muirdale, the Milwaukee county institution, to offer regular classes to its young patients and the success of its plan this year has been largely due to the fine support given by J. B. Layde of the West De Pere high school, who supervises the work. The teaching, for the most part, is done by convalescing patients. They are Miss Audrey Hollister, a former school teacher, and the Misses Rachel Milan and Gladys Berendson, all patients. Mr. Layde makes regular trips to the sanatorium each week. The plan of having a school man supervise the work originated with A. L. Simon, formerly principal of the West De Pere High School, who volunteered to go out to the institution three or four times a week and who conducted classes himself for more than a year. At the graduation this year one student received a diploma for having finished the eighth grade, certificates were awarded two children for promotion



HICKORY GROVE SANATORIUM

from the fifth to the sixth grade; two other children were promoted from the third to the fourth grade; while two older girls were each given several high school credits. Adults are not barred from the classes and many a grown-up has profited by this unique school.

Hickory Grove, situated in a large grove of hickory trees on the shores of a bay in the Fox River, three miles south of West De Pere, is an attractive sanatorium, one of the most homelike and "informal" institutions in the state. It was built by Brown county to care for its own tuberculous residents, and during the past year only one patient from another county was admitted. The sanatorium is always filled and there is usually a waiting list. The capacity of the institution is 40, but this is sometimes stretched to 42 in cases of emergency. Four large airy porches accommodate 12 patients and the rest are quartered in single rooms. The children are cared for in two ward

rooms, and two single rooms have been set aside for the very sick children.

The sanatorium is under the medical direction of Dr. D. H. Gregory of De Pere, and Miss Emma Rosenbohm is superintendent. Four nurses are employed to assist Miss Rosenbohm. Like many of the other county tuberculosis sanatoria, Hickory Grove has availed itself of the consultation services offered by the Wisconsin Anti-Tuberculosis Association, and once each month Dr. A. A. Pleyte of the Association's medical staff visits the sanatorium, examining patients, consulting with Dr. Gregory, giving advice on sanatorium problems and talking with the patients.

One of the porches of the sanatorium is being rebuilt this summer to permit of the heliotherapy or direct sunlight treatment. The institution now has two Alpine ray lamps, one for general treatment and another for localized radiation. The sunlight treatment, however, will be a new feature, and careful preparations for its scientific application are being made, the physicians in charge being anxious that no harmful instead of beneficial results shall occur. With this in view the foremost authorities on the subject are being studied, for so far little has been done with regard to this treatment in Wisconsin.

Any resident of Brown county is eligible for admission to Hickory Grove. If the patient is able to pay for his care there is practically no formality and, if there is a vacancy, can be admitted upon very short notice. If the applicant is unable to pay, his case must be presented to the county judge to whom he must make application for free care. In cases of emergency this can also be accomplished with little delay. Residents of other counties, if they are unable to pay, must make application to the county judge of the county in which they are residents. Before making application for care to the county judge, applicants should first ascertain from Miss Rosenbohm whether the institution has a vacancy.

BULLETINS AVAILABLE

Copies of Part II of the June Bulletin of the American Medical Association are now available for distribution. This Bulletin contains the address on "Regulation of Physicians by Law" by Mr. Harry E. Kelly of the Chicago Bar.

Requests for copies of this Bulletin should be sent to the Secretary, 558 Jefferson Street, Milwaukee.

CANNOT EXCLUDE ALIENS

That the State Board of Medical Examiners may not enact any rule to exclude aliens from taking the Wisconsin examinations, was the opinion of the Attorney General on July 28th. The opinion says:

"This section provides that the board may deny the application of one not twenty-one years of age. I find no provision in the statute requiring as a qualification for a practitioner that he be a citizen of the United States. Neither do I find any statute which expressly or through implication gives the board the power to enact a rule requiring a practitioner to be a citizen of the United States. The rule above referred to is in excess of the powers granted to the board. It would in effect be legislation upon that subject, and no legislative powers have been or can be delegated to an administrative board."

INVITATION TO AMERICAN PHYSICIANS

The Tri-State District Medical Association is supervising an Inter-State Post-Graduate Clinic Tour to Canada, British Isles and France, to start May 18, 1925. Leading teachers and clinicians of Canada and Europe will arrange and conduct clinics and demonstrations in the following clinic cities:

Toronto and Montreal, Canada; London, Liverpool, Leeds, Manchester and Newcastle, England; Edinburgh and Glasgow, Scotland; Dublin and Belfast, Ireland; Paris, Lyon and Strasburg, France.

Besides the main tour, special tours to practically all the leading centers of Europe will be arranged. Sight-seeing trips to all places of interest in the countries visited will be included in the regular tour.

Cost of tour, including first-class hotels, board, steamship, clinic arrangements and all ordinary traveling expenses, under \$1,000.

The tour is open to physicians in good standing in their State Societies, their families and friends who are not physicians.

For Information, write the Managing-Director, William B. Peck, Freeport, Illinois.

ONE REGISTRATION SUFFICIENT

In a recent letter to the Secretary of the State Society, Dr. John M. Dodd, Secretary of the State Board of Medical Examiners, held that a physician practicing in two adjoining counties need register his license in but one county.

State Board of Medical Examiners Question Ninety-five: Thirty Apply For Reciprocity

Ninety-five applicants for a license to practice medicine in Wisconsin wrote the mid-year examination at Hotel Pfister, Milwaukee, in June. Results of the examinations will be announced in the September issue. The questions submitted follow:

HYGIENE AND SANITATION

1. Give examples of relations of density of population to infant mortality.
2. What is a cess pool, and what are the objections to it?
3. What are the dangers of domestic animals and insects in houses?
4. What are the effects of too high and too low temperatures?
5. What are the principal points in a sanitary inspection of the sources of water supply?

MEDICAL JURISPRUDENCE

1. What is the compensation of the physician and surgeon founded upon?
2. What is the understanding of the courts relative to insanity cases?
3. What statements are accepted first in the courts relative to criminal abortion?

TOXICOLOGY

1. Diagnosis and treatment for poisoning by carbolic acid.
2. Differential diagnosis of tetanus and strychnine poisoning. Give treatment.

PHYSICAL DIAGNOSIS

1. Physical diagnosis of typhoid fever.
2. Physical diagnosis of small pox.

ANATOMY

1. Give the origin and course of the pulmonary artery.
2. How are the saphenous veins formed? Where do the saphenous veins empty?
3. Give the four principal points of distribution of the pneumogastric or par vagum nerve.
4. Describe the musculospiral nerve.
5. Give the origin and insertion and blood and nerve supply of the humeral biceps muscle.
6. Mention the muscles attached to the great trochanter of the femur.
7. What bones form the orbital cavities?
8. What bone forms the heel and with what does it articulate?
9. Name the ligaments of the ankle joint.
10. Describe the mesentery.

Answer only eight (8).

SURGERY

1. Describe fracture at base of skull: (a) causes, (b) symptoms, (c) effects on special senses, (d) immediate and remote effects on the mental state.
2. Give diagnosis, course and treatment of (a) pleural effusion, (b) empyema, (c) pericardial effusion, (d) abscess of lung.

3. Name the usual sources of peritonitis. Give diagnosis and treatment and the factors in prognosis.

4. Name the principal varieties of malignant tumors and state locations where each is found and the tissues involved. What are the essentials of successful treatment? How differentiate between benign and malignant neoplasms?

5. Under what conditions may the knee joint be opened? Give technique of operation.

6. Describe the operation of transfusion of blood by direct and indirect methods.

7. Give diagnosis and treatment of urinary calculus: (a) kidney, (b) ureter, (c) bladder.

8. What is flat foot? (a) cause, (b) diagnosis, (c) treatment.

GYNAECOLOGY

1. Give cause, effect and treatment of visceroptosis.
2. Give causes and treatment of sterility.
3. Give causes and treatment of ectopic gestation.
4. Give causes and treatment of the displacements of the uterus.

PATHOLOGY

1. What would be the post mortem findings in a case of death from drowning?
2. What pathological changes are found in diabetes? (a) Early? (b) Late in the disease?
3. How does metastasis take place? Given a case of carcinoma of the breast, what organs are apt to show metastasis first? Why?
4. Give the pathology in the different forms of pneumonia.
5. What pathological changes may result from hypertrophy of the prostate gland.*
6. Name and describe five reflexes and give the significance of each.
7. What is the significance of acetonuria, pyuria, indicanuria, glycosuria, polyuria, hippuria?
8. Describe the Widal test for typhoid fever. When is it dependable? What conditions may nullify or make it doubtful?

EYE, EAR, NOSE AND THROAT

1. What symptoms would indicate the necessity of ligating the vein in a case of surgical mastoditis?
2. How would you treat a case of strabismus in a child three years of age?
3. Give symptoms, diagnosis and treatment of gonorrhoeal conjunctivitis?
4. What symptoms may develop from impacted cerumen? How would you treat impacted cerumen?

PHYSIOLOGY AND DIETETICS

1. Locate points at which the various heart sounds can be heard best and state the cause of each sound.
2. Locate the respiratory center and what is internal respiration?
3. Describe the physical and chemical changes that take place in a muscle during contraction.

(Continued on page XXIV)

THE JOURNAL BOOK SHELF

The National Health Series. Edited by the National Health Council. 20 Vol., 18 mo. Flexible Fabeikoid. Average number of pages 70. Price per set \$6.00 net, per volume 30 cents net. Funk & Wagnalls Co., Publishers, New York and London.

Cancer: Nature, Diagnosis and Cure. By Francis Carter Wood, M.D., Director Institute for Cancer Research, Columbia University.

The Baby's Health. By Richard A. Balt, M.D., Gr. P. H., Director, Medical Service, American Child Health Association is especially valuable to the young mother.

Man and the Microbe. By Charles Edward A. Winslow of the Yale School for Medicine.

Personal Hygiene. By Allan J. McLaughlin, M.D., Surgeon United States Public Health Service.

Community Health. By Donald B. Armstrong, M.D., Sc.D., Executive Officer, National Health Council.

Handbook of Modern Treatment and Medical Formulary. Compiled by W. B. Campbell, M.D. Formerly Resident Physician at the Methodist Episcopal Hospital of Philadelphia. Seventh Revised and Enlarged Edition by John C. Rommel, M.D., and C. E. Hoffman, Ph.M. 693 pages. Cloth. Price \$5.00. F. A. Davis Company, Philadelphia.

Social Control of the Feeble Minded. A study of Social Programs and Attitudes in Relation to the Problems of Mental Deficiency. Stanley P. Davies, Ph.D., Ex. Sec. Committee on Mental Hygiene, New York State Charities Aid Association. Published by The National Committee for Mental Hygiene, Inc., 370 Seventh Ave., New York City. Price \$1.25.

The Anatomy of the Nervous System (2nd Ed.) By Stephen Walter Ranson, M.D., Ph.D., Professor Anatomy, Northwestern University Medical School. W. B. Saunders Company, Philadelphia and London.

Applied Pathology in Diseases of the Nose, Throat, and Ear. By Joseph C. Beck, M.D., F.A.C.S., Associate Professor of Laryngology, Rhinology and Otology, University of Illinois, College of Medicine. Cloth, 280 pages, 268 original illustrations including four color plates: C. V. Mosby, St. Louis, 1923.

New and Nonofficial Remedies, 1924, containing descriptions of articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1923. Cloth. Price, postpaid, \$1.50. Pp. 422+XXXIX. Chicago: American Medical Association, 1924.

The Circulatory Disturbances of the Extremities. By Leo Buerger. Published by W. B. Saunders & Co., Philadelphia.

Modern Urology. By Richard Cabot, M.D., Second Edition, Lea and Febiger, Philadelphia. Two volumes, \$18.00.

Obstetrical Nursing. By Charles Sumner Bacon, Ph.D., M.D. Published by Lea and Febiger, Philadelphia and New York. 1924.

Cosmetic Surgery—The Correction of Featural Imperfections. By Charles Conrad Miller, M.D. F. A. Davis Co., Philadelphia, 1924. Cloth, 263 pages, 140 illustrations. Price, \$4.00.

Management of Diabetes. By George A. Harrop, Jr., M.D. 176 pages, cloth. Paul B. Hoeber, Inc., New York, 1924.

Differential Diagnosis. Presented through an Analysis of 317 cases. By Richard C. Cabot, M.D., Professor of Medicine and Professor of Social Ethics at Harvard University, Volume 2, Third Edition, Revised. Octavo of 709 pages, 254 illustrations. W. B. Saunders Company, Philadelphia and London, 1924. Cloth, \$9.00 net.

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Pathological Technique. Mallory and Wright. Eighth Edition. Revised and enlarged. W. B. Saunders Co., Philadelphia, 1924.

A Critical Examination of Psycho-Analysis. By A. Wohlgenmuth, D. Sc. (London). New York: The Macmillan Company, 1923.

The Treatment of the Common Disorders of Digestion. By John L. Kantor, Ph.D., M.D. Illustrated. C. V. Mosby Company, St. Louis, 1924. Price, \$4.75.

The Conquest of Worry. By Orison Sweet Marden. New York: The Thomas Y. Crowell Company, 1924.

An Intimate Portrait of R. L. S. By his stepson, Lloyd Osborne. New York: Charles Scribner's Sons, 1924. \$1.50.

The Soul of Samuel Pepys. By Gamaliel Bradford. Boston and New York: Houghton Mifflin Co., 1924. \$3.50.

Now That I'm Fifty. By Albert Payson Terhune. New York: Geo. H. Doran Company, 1924.

The Mind in Action. By George H. Green. New York: G. P. Putnam's Sons, 1924.

Mobilizing the Mid-Brain. By Frederick Pierce. New York: E. P. Dutton & Company, 1924.

Physical Exercises for Daily Use. By C. Ward Crampton, M.D.

Insanity and the Criminal. By John C. Goodwin. New York: Geo. H. Doran Company, 1924.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1923. Cloth. Price, postpaid, \$1.00. Pp. 72. Chicago: American Medical Association, 1923.

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“East Water at Mason”

This volume contains the unabridged Council reports that have been adopted and authorized for publication during 1923. Some of the reports, due to their technicality, have only been abstracted in *The Journal*; others have been published in entirety, and still others have never been published elsewhere.

In this volume the Council sets forth the reasons that certain proprietary remedies were found unacceptable for *New and Nonofficial Remedies*, the reason why it has been deemed wise to omit certain hitherto accepted articles from the present, 1924, edition of *New and Nonofficial Remedies*, and the volume also contains certain preliminary reports on products that have therapeutic promise, but are as yet in the experimental stage. There is a long report on the widely advertised Fleischmann's Yeast, which was not found acceptable. Benetol, another article that has had much mention in the daily press, receives attention. There are reports on apiol and mercurial oil, which have been omitted from *New and Nonofficial Remedies*. In addition to these types, there are preliminary reports on bismuth in the treatment of syphilis, ethylene as an anesthetic, peptone in the treatment of migraine, and tryparsamid; and there are reports of such general interest as that on intravenous therapy and that on progress and conservatism in therapeutics.

For one who wishes to be cognizant not only of what the Council has done, but why it has done it, the book will be very valuable, for it supplements *New and Nonofficial Remedies* with a more detailed account of the activities of the Council during 1923. *New and Nonofficial Remedies* records those proprietary remedies which have been accepted; Council Reports treats those which have been found unacceptable, and those which give promise of becoming valuable.

Peculiarities of Behavior. By Wilhelm Stekel. Authorized English version by James S. Van Tessaar. In Two Volumes. Boni & Liveright, New York, 1924. \$8.50.

Dr. Stekel's studies in peculiarities of behavior are based on the newer knowledge of psychology. The human instincts and emotions are examined in the light of their development history. Dr. Stekel is one of the pioneers in this field and students of problems in which human nature plays a role will appreciate that these studies throw light on many varied aspects of mental activity heretofore little understood. The present work covers a study of what is known as impulsive acts. Cleptomania, gambling, pyromania and allied impulses are subjected to a most thorough scrutiny. One of the encouraging features is his proof that many of these conditions are amenable to psycho-therapeutic re-education. Chapter headings as follows indicate the scope of the work: "Instinct, Affect & Impulse," "The Impulse to Wander," "Flight into Parapathic Delirium," "Drug Addiction," "Stealing," "The Sexual Roots of Cleptomania," "Cleptomania," "Pyromania," "The Gambler," "The Psychic Treatment of Tic," etc., etc. This is a monumental work of great interest and great value.

R. S.

The Primitive Archaic Forms of Inner Experiences and Thought in Schizophrenics. By Alfred Storch of Tübingen. Translated by Clara Willard, Librarian, St. Elizabeth's hospital, Washington, D. C. Nervous and Mental Disease Publishing Company, Washington, D. C.

Attempts to fathom the thought content and to explain the actions of schizophrenics have been many. They all are interesting but too frequently flavored by the personal element of the student. In this monograph there is an interesting analogy in ethnological psychology and psychopathology. That there might be a definite relationship between schizophrenic thought experiences and activities and those of primitive archaic life was suggested by the relationship that does exist between dreams and the primitive life on the one hand and dreams and mental disorders on the other. The thought is by no means a new one but Storch lifts it from the field of conjecture and gives it a clinical application that is almost convincing. It is shown that the actions of these patients are frequently referable to certain primitive customs and performances. A marked similarity is shown in the psychic processes of the schizophrenic to those of primitive man. As the archaic primitive expression of ideas were sensory images, "full concrete pictures," so are the ideas of the schizophrenics inseparably connected with concrete sense impressions. The fact that the priest kings of New Guinea do not venture to move and sleep in a sitting position, thinking thus to preserve the equilibrium of the world, finds a parallel in a patient who explained why he had repeatedly let himself fall from the bed in a certain peculiar manner, "in order to make the world turn round, so that the wheels keep on moving."

This, as all studies of abnormal psychology, is influenced more or less by the personal element of the author. It is indeed an interesting discussion and should at least serve the purpose of stimulating efforts study psychiatry by the logical method of comparison.

R. S.

A Clinical Guide to Bedside Examination. Reiman Company, New York.

In the foreword of the thin little book, "A Clinical Guide to Bedside Examination," the statement is made that "It is very important that the examination of the patient be thorough and that nothing escape observation by the physician." All very well, of course, but the authors then proceed to try to squeeze into 124 small pages material that cannot—if it is to be detailed enough to be of any service—but put between the covers of a volume ten times its size. While intended as a guide to physical examination, the effort has degenerated into an attempt to provide a short cut in physical diagnosis—and a short cut to physical diagnosis just can't be thorough.

If the medical student is to be thoroughly grounded, he must appreciate the fact that only through wide and comprehensive study can he obtain those fundamentals which are so necessary for thorough work. He should not be led to believe that so important a subject as physical diagnosis can be handled in so trite and sketchy a manner.

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OH DOCTOR, DOCTOR!

By H. A. J.

It has become the fashion lately to write (entertainingly if possible) about the job of being a colyumist. Mr. House, of the New York Evening Post writes on "How It Feels to Conduct a Column," and Christopher Morley, who has lately been vegetating peacefully in France, writes to F. P. A., of the New York World, on "How It Feels Not to Have to Conduct a Column." Mr. House has recently asserted that in all his twenty-three years as conductor of a column, he has never had to hesitate about what he was going to write, and Mr. Franklin P. Adams, conductor of "The Conning Tower" in the New York World, has still more recently confessed that in his twenty-one years of work he has often been in doubt over his next column. Perhaps when he has worked two years longer he too will never have had to grope for an idea. Time is known as a great eraser of painful memories.

All this proves that column conducting has been raised from the rank of literary trifling to the plane of an Art. We may expect any day now to see the American Magazine come out with one of their little "Business Success" interviews, with a rotogravure picture of a paunchy, straight-from-the-shoulder-hitting Column-conducting Success, with one (1) twinkle in each eye, and an accompanying article, telling how "Honesty and strict adherence to the Golden Rule have put me where I am today." One is thrilled in anticipation of the orotund utterances.

But the situation, nevertheless, is critical, and something must be done to offset the temperamentality of column conductors. Already there is in circulation the story of the regrettable suicide of a New York colyumist, who was found dead beside his typewriter, which contained a note which said: "Please forg ve me for do ng th s. couldn't help t. broke the eye on my typewr ter." We have consulted our friend, the eminent Mr. Reginald Robinson, who is at present engaged in completing his monumental work on the Origin and Development of American Journalism (28 volumes), and he declared that the situation was more grave than he would be willing to disclose, at least before the publication of his epochal history. For my own information, however, he referred me to the

twenty-third volume of his work, which treats fully of this subject, and on the last page I found he had suggested a remedy, which I received his gracious premission to quote.

"Something drastic must be done" (says he) "to curb the overweening egotism of these so-called colyumists. It matters not whether the public is interested in their sartorial vagaries, or their cocky judgments on things they know nothing about. This is a critical time, and we must act quickly if we are to preserve the peace of mind of the general public, and even to save the colyumists from themselves. I suggest as a temporary measure, until after a Congressional investigation and the enactment of the appropriate legislation, that all colyumists, under penalty of prison sentences, have the first person singular pronoun stricken from their typewriters, and that in addition they be required to write exclusively in the third person, omitting all references to themselves."

We agreed perfectly in theory with the plan of Mr. Robinson, but we hope for our own sake that his suggestion is not carried out until we have had more practice in the style of writing he suggests than the acceptance of formal invitations has at present given us.

NOW WE ARE CLASSIFIED

A Mr. Charles Schallitz of Milwaukee is running for sheriff. This month one of the prominent members of the Milwaukee County Medical Society received the following letter from Mr. Schallitz. It was referred to this Journal with the question, "Should I be flattered or is it an insult?" Here's the letter:

SCHALLITZ FOR SHERIFF

3020 NORTH AVENUE

June 11, 1924.

Dear Friend:

At our meeting Friday night of over 40 saloon-keepers it was requested that I write each and every one of you a letter requesting your co-operation in my campaign for Sheriff.

I know that the majority of the saloon-keepers did everything possible 2 years ago, for which I must thank you. Our showing of over 20,000 votes for the first time in politics was wonderful and now with the primary the 2nd of September and five candidates in the field our chances are very good.

All I ask is for you to be kind enough and have these two nomination papers filled out and return same to me, for some day I may be able to favor you in return.

Hoping to receive your co-operation, I remain

Yours truly,

CHARLES SCHALLITZ.

The Wisconsin Medical Journal

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ORIGINAL ARTICLES

OBSTETRIC ANAESTHESIA AND ANALGESIA*

BY W. C. DANFORTH, B.S., M.D., F.A.C.S.
EVANSTON, ILLINOIS

It would seem that today the proposition that the parturient woman should receive all the relief of pain which may safely be given would nowhere fail to meet a ready sympathy. That the question is one of continued interest is evidenced by the attention given it by the general public as well as by ourselves. That a considerably greater degree of relief than is ordinarily given is entirely practicable would seem to be shown by our own experience for a number of years. Both chloroform and ether are deficient in that they cause so great an interference with the force and frequency of the uterine contractions as distinctly to slow the progress of labor, and so are usually only given at the end of the second stage, which means that only a comparatively brief period of pain relief is had. In addition there appears to be ample evidence, clinical and experimental, that the use of chloroform carries with it a distinct risk. Its use was discontinued on our service ten years ago, and in my opinion, it has today no place in obstetric practice. The proven visceral degenerative changes in the young in utero even after light intermittent administration of chloroform to the pregnant mother, comparable to that given the woman in labor, quite definitely indicate the toxic effect of the drug. Similar experiments with ether have shown changes similar in character but much less in degree. The administration of nitrous oxide to pregnant animals has been shown to cause far less degenerative change in the foetal viscera. In cases in which large amounts of nitrous oxide were given the changes were far more like those produced by asphyxia than they were like the degenerative changes following experiments with chloroform. Changes of similar character occur in the parenchymatous organs of the mother herself, evidence of which has been afforded by the pathologist.

*Presented at the 77th Annual Meeting, State Medical Society of Wisconsin, Milwaukee, October 3-5, 1923.

We recognize that chloroform is probably today still the most widely used obstetric anaesthetic. The habit of years, its ease of administration and easy transportability tend to cause its use to be continued. But none of these arguments can properly prevail against the demonstrated fact of its toxicity and against the claims of safer and more effective agents. Our problem of obstetric pain relief divides itself easily into three parts, the relief of pain in the first stage, relief in the second stage in normal cases, and anaesthesia for operative deliveries.

For the first stage inhalation anaesthetics are of little value. The older anaesthetics are practically useless. Sir James Simpson did attempt giving chloroform over periods of hours but the process was found impracticable.

We have found that the use of small doses of opiates, alone or supplemented by scopolamin, have been of great value. Morphine, codein, heroin or pantopon may be used. My own preference is for pantopon, except in primiparae in whom labor seems to be likely to last many hours, where morphine is chosen. Scopolamin is added in doses of 1/150 or 1/200 and this may be repeated after one or two hours. We make no attempt to produce the amnesia which those who use the method of twilight sleep seek to attain. We merely attempt to dull the severity of the pains and to produce a degree of somnolence between them. This, we believe, slows the progress of labor but little if at all and does decrease the nervous wear and tear of the woman, who is enabled to approach the second stage with less exhaustion than if the first stage had been entirely without relief. No opiate should be given if delivery appears to be less than three hours away, on account of the danger of oligopnoea in the child which may be caused by the opiate.

Carefully used, we have found hypodermic medication to be of value. For many years obstetricians have generally advocated the use of morphine or chloral for the slowly dilating and nervous primipara.

After the first stage is completed and in some cases shortly before that time we find it necessary to add an inhalation anaesthetic, and our prefer-

ence is quite decidedly for nitrous-oxide combined with oxygen. This has two very great advantages over the older anaesthetics, first that it is far less toxic, and second, that it does not slow the progress of the labor while at the same time giving a very satisfactory degree of pain relief. After being given for considerable periods of time it does not interfere with the force of the uterine contractions, although we have tried as a rule to restrict its use to periods under three hours.

It is important to begin administration of the gas immediately upon the onset of a pain. If the pain is allowed to get well under way before the inhaler is applied the woman receives but indifferent relief. This error has been the cause of some dissatisfaction. The number of breaths needed will vary in different women from three to six. The administrator can easily determine this point for the individual patient. Intermittent administration is continued till the head is on the perineum, when for the last two or three pains some ether is added through the gas apparatus in order to deepen anaesthesia and to aid in relaxing the perineal muscles. After the head has well crowned through the perineum a Kristeller expression may aid in delivery. In most cases the woman will not be aware of the delivery.

We have now used this mode of pain relief in considerably more than 3,000 cases. We have not had any experiences which have seemed to us to indicate the presence of either maternal or foetal danger. As evidence of this we will review the foetal and maternal deaths in a series of 1,323 cases, taken from the obstetric department of the Evanston Hospital. There were 1,341 babies born. Of these 59 were lost at some time between the entrance of the mother in the hospital and her discharge, the average length of stay being twelve days.

Excluding 22 premature babies, which did not survive, and which were born prior to the eighth month, we have 37 deaths remaining. Of these twenty were due to causes over which we had no control as will be seen in table one.

TABLE ONE

Small twin	1
Atalectasis	4
Spina Bifida	1
Congenital heart	4
Hemorrhage of new-born.....	3
Toxemia of pregnancy.....	2

(Dead prior to delivery)

Anencephalus	1
Prematurity	3
Hemolytic icterus	1
	20

The remaining deaths were due to some cause incident to labor. These we show in table two.

TABLE TWO
OBSTETRIC DEATHS

Breech extraction	2
Primipara.	
Cervical Cæsarian	1
Forty-eight hours labor before admission.	
Ether anaesthetic.	
Cerebral hemorrhage	6
Traumatic—necropsy.	
Asphyxia (cord about neck and arm).....	1
Flat pelvis—(arm and cord prolapse).....	1
Breech with cord prolapse.....	1
Version and extraction.....	1
Placenta praevia	3
(Two treated by version.)	
Transverse arrest—(delayed extraction).....	1
	17

It would seem that in this total list of foetal mortality each death is adequately accounted for on some basis other than anaesthesia. This would permit us fairly to assume that danger to the infants need not be feared.

In answer to any objection which may be made to nitrous oxide because of its effect on the progress of the labor we will indicate in table three the manner of delivery in these 1,323 cases.

TABLE THREE

Total number	1,323
Spontaneous	979
Low forceps	186
All other forceps.....	77
Breech extraction	59
(Including version.)	
Cæsarian section	22

Eleven hundred and sixty-five of these cases delivered either spontaneously or with no further interference than low forceps. This would seem effectively to dispose of the objection that nitrous oxide interferes with the normal processes of labor. We are by no means loath to do operative work and intend always to interfere upon legitimate indica-

tion, hence no attempt has been made deliberately to keep down the number of forceps deliveries.

As to the safety of this mode of pain relief to the woman, we will place in evidence our list of deaths and our mortality rate. The maternal mortality rate for this series of cases was 0.37%, certainly not a figure which would indicate the presence of any considerable factor of danger. The causes of death are shown in tabular form.

TABLE FOUR

MATERNAL DEATHS

Total number	5
Pulmonary embolism	2
Rupture of uterus.....	1
Acute dilatation of heart.....	1
Chronic adhesive pericarditis.....	1
(Ether anaesthetic.)	
Percentage	0.37%

None of these cases can be charged to gas anaesthesia. The case of acute dilatation of the heart occurred three days after delivery, in a primipara of 43 with multiple fibroids. She had had myocardial trouble before, was delivered by elective section before the onset of labor and went through the operation well.

The case of adhesive pericarditis received no gas and was lost while an ether anaesthesia was being induced for a simple outlet forceps after eight hours of normal labor during which time her heart had shown no deviation from normal.

We have found a distinct advantage in our nitrous-oxide gas technic in operative obstetrics. Probably the most frequently performed obstetric operations are the outlet forceps and primary perineal repair. These are easily done under nitrous-oxide anaesthesia, provided one has an anaesthetist with a fair command of anaesthetic technic. The avoidance of nausea and the rapid recovery from anaesthesia is a very distinct advantage. Perhaps the most striking reason for preferring gas is the fact that relaxation of the uterus is far less marked than with either of the older anaesthetics. This diminishes the tendency to bleed, and lessens trouble with the third stage of labor. We have found since using gas over a wide range of our work, operative and otherwise, that severe bleeding has been far less frequent, and manual removal of the placenta much less often needed.

The lessening of the tendency to post-partum failure of the uterus to contract firmly, and the consequent lessening of the tendency to hemorrhage is a point of considerable practical value. It also lessens the chance of infection because it diminishes the necessity for intra-uterine manipulation in the third stage and it also prevents damage to the woman's resistance incident to blood loss.

Often, too, it is possible to do a forceps delivery with an anaesthesia so light that uterine contractions are not completely stopped, and their force will aid extraction and lessen the amount of instrumental trauma applied to the foetal head. In many cases but very little force is needed in simple outlet forceps. In anaesthesia for surgical work, however, one should not forget that a certain amount of training is needed for one to be able to give a satisfactory anaesthetic for any sort of operative work. Obstetric surgery is no exception to this and an attempt to apply gas anaesthesia to obstetric operations without at least a fair acquaintance with the technic of anaesthesia will probably lead to disappointment. Some dissatisfaction is no doubt due to failure to appreciate that mere possession of a gas apparatus does not make one an anaesthetist.

For the more difficult forceps we have in the majority of cases been able to make use of gas with entire satisfaction. For the minor procedures of obstetric work such as the evacuation of the uterus in incomplete abortion or the insertion of a bag gas is excellent. We have for years used nitrous-oxide with success for procedures of this sort. Particularly for bag insertion, when we wish the woman to go into labor at once, is it desirable to avoid the nausea and inhibition of uterine activity consequent to an ether anaesthetic.

Granted the assistance of a competent anaesthetist nitrous oxide anaesthesia is entirely satisfactory for Caesarian section, and here, again, one notes the favorable effect upon uterine contractility following anaesthesia with gas rather than ether.

For three operations we would not advise its use. In version, particularly, for safe and easy manipulation one wishes a well relaxed uterine wall and this is much more quickly and completely obtained with ether than with nitrous oxide. Attempts to do this operation with poor relaxation increase the risk of injury to the uterine wall. Again, in man-

ual rotation of the head in persistent occiput posterior, one works more easily and with decidedly more assurance of obtaining a quick and satisfactory rotation if the uterus is well relaxed. Ether here is best. We have also found that in doing breech deliveries, particularly in primiparae, in which some assistance from pressure from above through the abdominal wall upon the after coming head is of value, that the greater relaxation of an ether anaesthesia is of value.

We would emphasize the fact that better anaesthesia is the right of the woman in labor. We admit the difficulties under which the physician labors in working in homes, particularly in the homes of those who are limited in space and ability to provide the things that are needed, and in which anaesthetics may be given by those of little skill or no skill at all. These things may be excusable when unavoidable, but the day has gone by when indifferent anaesthesia is permissible in a well regulated hospital. Anaesthesia in its relation to surgery of late years has received an ever increasing attention. It has, however, seemed in some institutions that while appendectomies, herniotomies and even minor operations should be done with anaesthesia induced by a trained anaesthetist, that obstetric operations of major degree could be done with anaesthesia given by an inexperienced young interne or other person who might be available. Obstetric operations are the only ones in which two lives are at stake at the same time. Certainly anaesthesia is no less important under such conditions than in any other possible surgical situation.

Our own experience has been such as to convince us that at present nitrous-oxide oxygen is the one anaesthetic agent yet thoroughly tried which will relieve the pain of the second stage of labor without at the same time interfering with the progress of labor.

We believe that chloroform should be eliminated from obstetric practice altogether on account of its known toxicity and its proven harmful effects on the viscera of both pregnant animals and their unborn young, and because of clinical evidence which is in accord with laboratory findings.

Ether should be used if gas is not available, and may be used to supplement the effect of gas at the moment of delivery, for operations requiring considerable muscular relaxation of the mother.

It may also be used for operations which are expected to consume much time under complete anaesthesia on account of some risk of carbonization of the foetal blood. Such occasions as this in the practice of experienced obstetricians are not common.

We would urge also the value of some form of hypodermic medication in the first stage as a means of preserving the woman's physical and nervous forces for the second stage. And, finally, we would urge the justice of a more general and earnest attempt to decrease the discomforts of women in labor, too many of whom still are given scarcely more relief than might have been given generations ago.

THE PURPOSES AND BENEFITS OF MATERNAL WELFARE*

BY FRED L. ADAIR, M.D., F.A.C.S.

Associate Professor of Obstetrics and Gynecology, University of Minn., Medical School

In the consideration of the purposes and benefits of maternal welfare one has to think not only of the purposes so far as the individual members of society are concerned, and the benefits which accrue to them, but it is necessary also to consider the purposes and benefits to be derived from the standpoint of the community. From the viewpoint of the individual, the conservation of happiness, health, and life are of the utmost importance. From the standpoint of the community, it is necessary to have its component members not only derive a certain amount of satisfaction and enjoyment from life, but also that the various elements of society continue to live in sufficient numbers to maintain the community, the state, and the human species. It is also highly desirable that there be a continuous physical, psychical, and moral improvement. The benefits to the individual and the immediate family from the preservation of health and life, which are very essential to the pursuit of happiness, are quite obvious. The benefits which accrue to the community are not so obvious, but necessarily reflect themselves in the community life and existence.

We might consider some of the more general problems first, then some of the more specific problems, and finally the application of these problems

*Presented at the 77th Annual Meeting, State Medical Society of Wisconsin, Milwaukee, October 3-5, 1923.

to individual members of society. We might first consider the question of birth control. We might ask whether or not the advocacy and propaganda for birth control are seriously interfering with the continued existence of the human race. It is a well known fact that there has been a very rapid decline in the birth rate, especially of the more highly civilized countries, and that this decline in the birth rate has affected particularly the leading groups of society, especially the higher economic class and the intellectual group of society. Theoretically, at least, these are the members of society who are most able to cope with the existing conditions and make the most out of their environment. If heredity and environment are factors in the improvement of the human race, society is losing some of its most valuable assets. This decline in the birth rate has also affected other social groups, though not to such a great extent. In one country, at least, the decline in the birth rate has been so constant and steady that the reduction of the death rate has barely been able to keep pace with this reduction of births, and that country is not only facing a problem of failure to increase its human assets, but is imperiled by an actual numerical decrease of its members. It is also a question whether or not other countries will not be gradually facing these same problems. The other question with regard to birth control is whether or not this program, as at present advocated, will accomplish any improvement in the human race. Some of the factors mentioned above tend to indicate that a gradual deterioration of the human race is in progress, and that it is only a question of time until communities will be faced with the problem of curtailing the propagation of the defective members of society, and stimulating the production of the superior members of the human race. These are very difficult problems to consider and the solution will be extremely difficult to attain. From the standpoint of medical practitioners we should be vitally interested in preserving the health and lives of the possible mothers and offspring.

In considering this topic under the head of maternal welfare, one is forced to regard both mothers and offspring. One can hardly think of maternal welfare without considering prenatal welfare. It is impossible to consider the welfare of mothers during the puerperium and period of lactation without coupling with it the welfare of

the infant. As obstetricians, we are vitally interested particularly in the mother and offspring during the period of gestation, parturition, puerperium, and the neonatal period. As pediatricians, the interest lies also in both mother and infant, particularly during the newborn period, the period of lactation, and early infancy. General practitioners are vitally interested in the welfare of the family during a much longer period of time than either the obstetric or pediatric specialist. The obstetrician and pediatrician are more vitally concerned with individual and isolated cases, whereas the general practitioner is more intimately concerned with the family health and family development over a much longer period of time.

Another problem of importance is that of the birth rate. As already indicated the birth rate is diminishing and especially for the native born population. Some years ago the author published an article on the birth rate, in which an analysis of statistics showed that there had been a general decrease in the birth rate throughout the civilized world. At that time our country was about the fifth as compared with the European countries, only four others having a lower birth rate. In this article it was shown that the native born population have fewer children, but the percentage having no children had not increased materially. Of the foreign population each succeeding generation shows less productivity. The percentage of sterility among married women ranged from about two and one-half to twenty per cent. This, of course, does not mean actual sterility, but statistical sterility. The statistics for the registration area of 1920 confirm these statements. There are only six states in the union where the birth rate is higher among native born than among foreign born population. All of these states have a relatively low birth rate. In this paper it was also pointed out that practically four children per family are necessary in order to maintain the population. Bearing this in mind, it is obvious that it is vital for the continued existence of the community to conserve the health and life of all possible mothers and offspring.

The maintenance of large and expensive institutions to care for those mothers and infants who have in various ways suffered temporary and permanent disabilities from poor and improper obstetrical care is something of great importance

to the community. It has been pointed out that in certain hospitals as high as fifty per cent of gynecological operations is made necessary as a result of infection and injury at the time of childbirth. From a standpoint of the community as well as the individual the loss of life and health of the wife and mother in the family is an irreparable loss.

In reference to the preservation of life and health of mothers there are three ways in which this can best be accomplished. First, by decreasing the number of infections following abortions and childbirth, which is to be brought about by better trained attendants and more completely equipped institutions for the care of maternity cases. It has been shown by different observers that maternal deaths from puerperal infection can be practically eliminated, and that the morbidity can be very greatly reduced. It is also important that the laity should understand the necessity for making proper preparation for confinement by seeking advice early in pregnancy. Second, the detection and control of toxemia. To impress the importance of cooperation of the laity with their medical advisors with a proper understanding on the part of patients of the importance of care during pregnancy, and with the appreciation of the necessity on the part of physicians for the routine study and observation of maternity cases. Maternal deaths from toxemia should be practically eliminated. Third, the detection and cure of disease, more or less accidental to pregnancy such as venereal diseases, both gonorrhoea and syphilis, acute infections, both generalized and local, chronic infections such as tuberculosis, and focal infections, various other diseases of the cardiovascular system, kidneys, and constitutional diseases.

It is very important that medical men should appreciate more and more the importance of practicing preventive medicine, not only as applied to the community, but to individual patients. In the past, the role of the physicians has been mainly that of curing disease after it has developed. The future function of the physician should be to prevent the incidence of disease conditions, not only in the community, but in his individual patients. Where it is impossible to prevent the occurrence of disease conditions, the early detection of these pathologic conditions is of the very first impor-

tance in conserving the health and prolonging the life of the patient.

We have also to consider the preservation of the life and health of the infant. For those of us who are practicing obstetrics the antenatal period together with parturition, the puerperium and the neonatal epoch are of prime importance. We should strive to diminish the number of premature terminations of pregnancy to the lowest possible level, and by the proper handling of patients during pregnancy endeavor to reduce the number of intrauterine foetal deaths to the lowest possible level. We should so conduct labor that the number of intrapartum stillbirths and injuries is reduced to the lowest possible level. This can be done by a proper appreciation of the importance of proper care and advice during pregnancy, together with the detection and appreciation of early symptoms of abnormal conditions. In considering these things from the standpoint of the community we must appreciate the importance of continued investigation and research, that the community may receive the benefit of increased knowledge of many things where our ignorance is very great. The community must pay the price of having the sum total of human knowledge increased. They must pay for the cost of institutions and equipment necessary for the proper care of various members of society. On the other hand, the community will receive the benefit in the way of fewer losses of life, lessened disabilities from disease conditions, and prolongation of life.

In a recent number of the Ladies' Home Journal there is an article by Dr. S. Josephine Baker on the "High Cost of Babies." It must be recognized that nothing costs the community or the individual so much as poor care. This applies particularly to maternity care, with the maternal mortality in this country exceeding fifteen other civilized countries, with an unusually high stillbirth and neonatal mortality rate. We surely should be prepared to pay more and at the same time receive more. The dividends of the high cost will be paid at a good rate in the reduction of maternal mortality and morbidity, as well as in the marked diminution in the stillbirth and neonatal death rate, which combined, now equals the infant death rate during the remainder of the first year of infant life.

The author has so recently published a joint

article dealing with statistics regarding many of the things mentioned above, that it hardly seems necessary to repeat these. For those who are interested the article will be found in the *Journal of the A. M. A.* for September 22, 1923. This article gives, in quite definite figures, some of the results which will be obtained by antenatal care.

As applied to individuals, women who are pregnant must appreciate the importance of early consultation with their medical advisors; the doctors must also appreciate the importance of preventive medicine as applied to maternity cases. They must also realize the necessity for better obstetric care of their patients, both mothers and offspring, during the entire period of gestation, parturition, puerperium, and antenatal and neonatal period of life.

PRESIDENT: The discussion will be opened by Dr. M. L. Henderson, Milwaukee. Dr. Henderson not being present, Dr. C. H. Davis, of Milwaukee, will open the discussion.

DR. C. H. DAVIS, Milwaukee: Mr. Chairman and Members of the Society. These two papers are of great importance to every general practitioner, as well as to the specialists.

I am thoroughly in accord with the observations of Dr. Danforth, and will say nothing regarding his paper, because a paper presented by Dr. Danforth and myself before the American Medical Association, has already been published.

One point pertaining to the babies I would like to emphasize, due to its having occurred in my experience again this afternoon. From time to time we have conditions during the perineal stage which endangers the baby; babies will become asphyxiated, sometimes to the point of becoming limp, before they are born. There is nothing of greater value in resuscitating such babies than pure oxygen. And one thing which has proven of great value in connection with the nitrous-oxid anaesthesia in the delivery room is the availability of oxygen when for some reason it becomes necessary to resuscitate a baby. Regardless of our care we all have certain babies which must be resuscitated.

Coming to the general question of pre-natal care and care of the mother, there are two or three points which have been brought out. Dr. Adair has stated that puerperal sepsis may be practically eliminated. It may be greatly reduced, but puerperal sepsis will never be entirely eliminated so long as women carry virulent organisms in their cervix and vagina canal. A considerable number of puerperal sepsis cases in the practice of physicians occur in women who have had no internal examination or manipulation during delivery. In a few such cases seen in consultation over the state, there has been a history of the woman having had a cervical erosion, endocervicitis, vaginitis, etc., for which she had not been

treated before she became pregnant, and which was not treated during the pregnancy. I believe, Gentlemen, it is very important for everyone of us who discovers a birth canal infection of any sort during pregnancy to keep that under treatment until it is healed, if we are going to reduce the dangers of puerperal sepsis. In that treatment, the thing which had been of greatest value to me in the last few years has been mercurochrome in solution. Through vaginal speculum in place, the tissues are thoroughly cleansed with sterile cotton pledgets, and then swabbed with 3 to 5 per cent mercurochrome on a sterile applicator. This may have to be done 4 or 5 times a week over a considerable period of time. To show that it can be done I will mention one patient with such a condition who came to the office 4 or 5 times per week for 4 months during the middle of pregnancy. She went over time, and I induced labor with a bag. She expelled the bag with complete dilatation. After 12 hours more labor she could not engage the head, and I had to do a Caesarean section but fortunately got by with a temperature that never went above a hundred.

Relative to the lessening of the risk after delivery. For several years we have made it a standing order in our service to elevate the head of the bed about 6 inches with blocks for the first 4 or 5 days after delivery, or until the lochia has largely disappeared. We have urged the women not to stay on their backs, and thereby keep a pool of lochia, with its bacterial content, bathing the cervix.

During pregnancy everything should be done to bring the baby through to term in a healthy condition, and in that connection careful watching of the patient becomes imperative. For a number of years my obstetrical patients have averaged about twenty office visits.

The number of babies which we have lost from the 7th month to the time of discharge some weeks after leaving the hospital is approximately the same as Dr. Danforth reports, being 3.9% from all causes.

The babies are discharged from my observation when the patient leaves the hospital, but the patients are instructed that they should get in touch with the family physician, or, if they have a pediatrician, with the pediatrician, have him examine that baby within the first few days after they are home; and they are also warned that in case at any time the baby is not perfectly normal that they should call the physician at once. What has been the value of this practice? You are aware of the fact that there are about eleven deaths of babies during the first year, out of every hundred, subsequent to the deaths in the hospitals. During the past four years since I have been watching thus closely and warning patients of the necessity of keeping up their medical supervision, just one baby, so far as I can determine, that I have sent home from the hospital in good condition, has subsequently died, and that one died from suffocation, not from disease. In that group there were at least half a dozen babies who have been extremely sick with pneumonia, others that had other severe infections. Because of the fact that the medical

attendance was promptly called, these babies have survived, and we have gotten by without this high death rate which is common over the United States. (Applause.)

PRESIDENT: We have with us this afternoon Dr. Charles E. Paddock of Chicago. I take great pleasure in offering the floor to Dr. Paddock. (Applause.)

DR. CHARLES E. PADDOCK, Chicago: Mr. President, Members of the Society. I came to this meeting today with my friend Dr. Babcock, believing that I would have a good day off from work and at the same time gain some valuable information by listening to the speakers on your program. I have not been disappointed.

I had no intention of taking any part in your program but I cannot let the opportunity pass to call Dr. Danforth to task for his criticism of the use of chloroform in obstetrical practice. We must remember that most obstetrical deliveries are made at home and those of us who are so fortunate as to confine our obstetrical practice to patients who go to a hospital are very much in the minority. For years I delivered my patients in their homes and chloroform was the anesthetic generally used. It was often given by some member of the household or even by the patient herself, and I have never seen a bad result because of its use. If we could get into the rural districts and question the physician who cares for the obstetrical cases in these districts, I am sure we would find that chloroform is the anesthetic more generally used.

There have been fatal results because of its use, but then there has also been death following the use of other anesthetics. For a time degenerative changes in the liver followed the use of chloroform in obstetrics, but in every case so diagnosed it was evident that such changes were due to prolonged chloroform anesthesia, an unnecessary procedure. There is no anesthetic that so quiets the pain and relaxes the os as does chloroform when given during those agonizing lancinating pains of the latter part of the second stage of labor. I can also say as much for its good results in the last dilating pains of the perineum and vulva.

I do not wish for a moment to disagree with the essayist in the value of nitrous oxide gas and oxygen. I use it in the hospital. I also use ether and very frequently I depend entirely upon scopolamin and morphine.

I have been more frightened in using gas than I ever have been in the use of chloroform. Nitrous oxide gas oxygen must be given by an expert, and I wish to emphasize this fact. The general practitioner cannot always have a gas tank with him; neither is it possible to have an expert to give it and besides it involves an expense which is a burden upon the patient.

I believe a physician is taking the wrong course when he promises a patient before her delivery that he will use a certain anesthetic. There are patients who do not need an anesthetic. There are others whose labor is going to be so rapid that scopolamin and morphine should not be used. In certain cases neither chloroform

or ether are indicated. It is an individual matter as to what means a physician shall take to carry his patient through a labor with the least pain possible. How many times you and I have gone to a patient and found her suffering to such an extent from the labor pains that the entire household was alarmed because of her screams and apparently intense suffering. In a few moments, after getting rid of the family, you talk to your patient, you convince her that she is not suffering nearly as much as she thought and in less time almost than it takes to tell it you have the patient quieted, and by the time another pain comes on you have her so under control that she goes through with that pain without a scream. Whatever this is, we will call it treatment by suggestion; it works so often that I am surprised that the essayist failed to mention it, for I know he uses it. Many patients go into labor with a fear that is pathetic, and almost at once call for assistance. There was a time when chloroform was given these patients from the beginning to the end of the labor and it was in this class of cases we found the injuries which have been mentioned as due to chloroform. I presume to a certain extent labor is still conducted in this way but not to that degree which was so characteristic twenty-five to thirty years ago.

Going back to Dr. Adair's paper I was very much impressed with his deductions. I have been familiar with them before. We are doing much in using pre-natal care. I am not such a pessimist about the future of our race as some of these men are. Certainly we have prolonged infant life. What does that mean? It means stronger men and women later. We have decreased infant mortality. We are now holding clinics in every city and nearly every community. The small towns are going to hold them. And we will soon find pre-natal clinics everywhere. This to my mind is going to bring about a great improvement in the future of our race. I thank you very much. (Applause.)

DR. J. P. McMAHON, Milwaukee: Mr. President and Gentlemen. This of course is a very important subject.

We are under obligation to Dr. Adair and to Dr. Danforth for the masterly way in which they presented it. It is also important because of the fact that the majority of the people in the room are doing more or less obstetrics and pregnancy and labour are supposed to be normal forces; but as a matter of fact they usually are not. A great deal can be done by way of proper pre-natal care. Notwithstanding the fact that the leaders in the profession have been preaching pre-natal care for some 12 to 15 years, it has not been generally adopted and is not being practised. It is being done sporadically only.

Now you gentlemen who are doing obstetrics throughout the state of Wisconsin, who have listened to these men this afternoon, must have been impressed with the great service which you can render your patients if you but familiarize yourselves with the work that they and others are doing throughout the country, and feel the responsibility which you owe to your patient to try to

conduct a pregnancy and a labour in the improved way. This is not being done at the present time in the state of Wisconsin.

I said a moment ago that pregnancy was supposed to be a normal state, and that in the main labours are supposed to be normal. The facts are that more than half the women who bear babies go through a period of morbidity, in some of whom this condition extends throughout the rest of their life. The fact is that the maternal mortality in general practice is still four or five times higher than it ought to be. The fact is that maternal mortality has been reduced to about twenty-five hundredths of one per cent in well regulated hospitals.

Now the proper pre-natal care can reduce your maternal morbidity. Proper delivery materially reduces your maternal morbidity. And postpartum care is something which is entirely neglected by the great majority of men. The postpartum care as rendered to the average patient amounts to nothing. For evidence to what can be done in this respect I would refer you to a recent article in the Journal of the American Medical Association by Dr. Leuch of San Francisco, I believe.

Now these morbidities should not be permitted to continue when it is so readily possible to correct them and they can be so well taken care of.

Another condition which explains of course, a great deal of the morbidity and the poor obstetrics, is the midwife problem. One of the first outlets for my energy when I came to Milwaukee about ten years ago, was investigation of midwifery as practised in Milwaukee. The investigation established the impressions that we had, only we found conditions were much worse than we really thought, and as a result of that your humble servant, with the assistance of some of the older men of the profession here wrote the Wisconsin Midwife Practice Act, placing them under the State Board of Medical Examiners. Under this act they were required, before being permitted to take an examination, to show evidence of having attended an accredited college for a period of twelve months, and to have witnessed the care of at least twenty women, which was more at the time than the average medical student saw, and forbidding them to do anything but conduct normal labours, forbidding them to use ergot, forbidding them to deliver retained placenta, etc. It is interesting to note that as time has gone on the midwives have been gradually eliminated in Wisconsin, and that was the purpose of the Act. There were those at the time who thought that midwives ought to be encouraged and educated; that they were necessary. It was my contention that they were not necessary, and that the only way you could improve the service which was going to be rendered to the majority of expectant mothers was complete elimination of the midwife. It was of course anticipated at the time that there would be an improvement in the nature and quality of the medical services to be rendered instead of those rendered by the midwife. We are glad to say that that has come to pass. These screens which were thrown on the curtain here this afternoon establish the fact that the conditions in Milwaukee in 1910 were that

33% of the babies were delivered by midwives. Last year, ten years later, about 12% were delivered by midwives. I am afraid, however, that the same proportion does not hold true throughout the states. So much for the general subject of how to render better service to the expectant mother. She is entitled to it, and should have it.

As a further stage in the evolution, after eliminating the midwife, and after assuring a better quality of obstetrics being practised by the men who are taking care of the majority of mothers, I do not believe it is too much to expect that in a reasonable length of time the majority of women will be delivered in the hospitals. It is my practice, and has been for some time, that where there is a question of whether or not the mother can go to the hospital, in the main to refuse to take care of her unless she at least go to the hospital for the delivery. I have no hesitancy at all in promising a mother who will not go to the hospital and stay there 7 to 10 days or two weeks, that it is much safer to go home in an ambulance a few days after delivery than it is to be delivered at home. And further, the mothers throughout the state of Wisconsin, and throughout the state of Minnesota, are entitled to just as good care as the mothers in the metropolises. They are not getting it; and the only way that they ever will get it is to have county health centers, and community hospitals, and I believe that one of the things we should look forward to is encouraging hospitals in townships in the not distant future, so that every mother can be delivered in the hospital. If we see fit to transport children to rural High Schools, shall we not consider the advisability of transporting prospective mothers to hospitals to be taken care of in an approved way?

I feel that I am transgressing, Mr. President, but there is one other subject which I wanted to mention, with reference to the remarks made by our colleague from Chicago so far as chloroform is concerned. I beg to differ with him. So far as my knowledge goes, if there is anything established with reference to complications of pregnancy, it is the fact that the greatest change which follows its use is that on the liver, with the toxemias, and particularly the eclamptic state. The changes in the liver are the important ones. I think also that it was well established a long time ago that we have no drug which we ever administer to patients that is any more of a liver toxin than chloroform is, and I cannot understand how some very good men, even as good men as our colleague from Chicago, and I have some friends in town, some of the leading men in the profession, not only obstetricians and gynecologists, but very competent general surgeons who still use chloroform. I think it is wrong, and should not be permitted if we could prevent it. I believe there is no necessity for it, because ether is certainly just as efficient, if you cannot have gas. I think it is false doctrine to go out in the proceedings of this session that chloroform is still admissible in the practice of obstetrics.

PRESIDENT: I will ask Dr. Danforth to close the discussion.

DR. WILLIAM CLARK DANFORTH, Chicago: Excepting as to the use of chloroform I might say that I agree with everything Dr. Paddock said. I think he is wrong about that. And I was very glad to hear Dr. McMahon come out as frankly as he did in regard to the question. I think it must be as long as 7 or 8 years ago that Dr. Cragin of New York published his textbook, which was practically a review of the previous several years' work of the Sloane Hospital, and at that time in that book he took pains to bring out very distinctly the fact that chloroform has a very toxic effect upon the parenchymatous organs, particularly upon the liver, and for that reason should never be given in cases of eclampsia. So this idea of ours is not a recent one; it has been recognized for years; and it is more and more generally coming to be known, until even Dr. Paddock himself admits this afternoon that it is toxic. All of the things that chloroform does at the end of the second stage, etc., can be done very easily—we do them constantly—with nitrous oxid gas, and I think a little more satisfactorily.

We all admit that there are a certain number of cases that do not need anything. We all admit too, that suggestion on the part of the physician has considerable value. And I agree with Dr. Paddock that nitrous-oxid is not a good thing to use in the home. The machinery is too cumbersome to transfer, and it is practically impossible to get anybody who really can give it properly without some training. (Applause.)

PRESIDENT: I will ask Dr. Adair to close the discussion on his paper.

DR. FRED L. ADAIR, University of Minnesota: I think from what Dr. Davis said that I did not make myself quite clear in my statement regarding puerperal infection. I stated, I believe, in my paper that deaths from puerperal infection could be practically eliminated, but I did not state that puerperal infection could be eliminated. I think we ought to be very careful not to give the laity to understand that puerperal infection is absolutely a preventable disease. It is theoretically preventable, but it is practically not absolutely preventable. But I think the mortality from puerperal infection is preventable, practically speaking; that it is possible to have a very, very small mortality from puerperal infection in maternity cases, perhaps one in ten thousand, or something like that proportion; so it can be practically eliminated.

And I appreciate very much his suggestion regarding the clearing up of genital infections during pregnancy. I did not go into all the details of these things, but I wish further to call attention, while we are speaking of infection, not only to the importance of removing genital infection, but to the value of removing infection wherever found in the body. That applies to oral infections, sinus infections, tonsil infection, and any infection that you can locate at any point in the body. They should be carefully treated and cleared up as early in the pregnancy as possible.

I hope I did not give Dr. Paddock the impression that I was a pessimist about the future of the human race

at all, but what I had to say today was more of a plea for better obstetrics, and I was trying in every way possible to show the importance of obstetrics to you medical men not only in dealing with individuals but the importance of practising better obstetrics from a community standpoint as well. (Applause.)

THE EARLY STAGES OF CHRONIC BRONCHITIS*

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The non-tuberculous infections of the lungs have been the subject of an increasing amount of study and discussion during the past decade. This has been most active and more fruitful of therapeutic results in the field of the surgical infections such as pulmonary abscess, gangrene and localized bronchiectasis. There exist, however, a probably larger group of pulmonary infections, not due to the tubercle bacillus, for which, either because of their wide-spread involvement or because of the relatively slight gravity of the lesions or of the ill health which they cause, lung surgery is either not likely to afford relief or its risks greatly overbalance the patient's disability. In these infections any reduction in incidence or in mortality must be accomplished either by medical treatment or by forestalling their development, or in less fortunate cases mitigating their severity, through early recognition and prompt and adequate treatment of those conditions which may foster their progress.

Aside from such specific infections as syphilis and actinomycosis, the most common and important of these chronic, non-surgical, non-tuberculous lung infections are chronic bronchitis, diffuse bronchiectasis and the closely related group of milder infections which have been described in several papers (1) during the past ten years under various titles of which the term "chronic non-tuberculous lung infection" has come into most common use. All these conditions have in common a course of great chronicity, interrupted by occasional acute exacerbations, and often leading by very gradual stages to greater and greater degrees of physical impairment; they are only slightly amenable to the usual means of medical

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treatment. Etiologically, each of these syndromes may be found associated with one or another, occasionally with several of the common pulmonary invaders, the pneumococcus, the influenza bacillus, the micrococcus catarrhalis and various types of streptococci.

The most common of these infections is chronic bronchitis which is usually thought of only in its text-book guise of the chronic, long-established disease in a patient past middle life. This picture bears the same relation to its early stages as does the former text-book picture of cancer to the early stages and pre-cancerous states which we now seek to recognize and eliminate. The history of the chronic bronchitis, carefully taken, holds many fruitful suggestions bearing upon pathogenesis and prevention. It is rarely a short one. Through the mutations of "colds" usually with accompanying cough and often with frank acute bronchitis, of sore throats or tonsillitis, of persistent and troublesome catarrh, varied now and then by an attack of otitis media or a bronchopneumonia, the history of the respiratory infection takes its way. Not rarely attacks of bronchial asthma appear and disappear in the picture, or perhaps entirely dominate it. The times of onset of persistent cough, of persistent sputum or of dyspnoea are hazy; occasionally they may be dated from a definite exacerbation. Gradually the symptoms suggestive of beginning cardiac or renal incompetency appear until finally the picture of the late stages is developed. Having regard for the long duration of the disease with its prolonged opportunity for mechanical strain upon the heart and for toxic damage to heart and kidneys from the usually present infection, it is not surprising that Lord² could find that, by the time of death, these organs presented lesions which might be considered primary, or that Hawes³ records a sharp difference of opinion as to whether or not chronic bronchitis exists as a primary disease. A painstaking history is as important in mapping the evolution of chronic bronchitis in the middle-aged and elderly as in detecting the early manifestation of tuberculosis, long antedating the final breakdown. Such a history moreover surprisingly often brings to light episodes which are indistinguishable from those characterizing the milder types of pulmonary infection to which reference has been made.

The evolution of the physical signs through the

years is comparable to the evolution of the symptoms, and like them, often passes through stages indistinguishable from those characterizing the so-called "non-tuberculous pulmonary infections." Cough may be present for long periods of time in the absence of detectable physical signs in the lungs. Sooner or later, following a fresh cold or an acute bronchitis there appear in one or the other lung, perhaps in both, and usually in the lower lobes a variety of abnormal signs. These may be very slight and sufficient to attract attention only on the most careful examination, or they may be very definite and unmistakable. In their slighter forms there may be found only an abnormal transmission of the whispered voice, much more rarely of the spoken voice or an abnormally harsh and prolonged expiratory note; occasionally there may be found an area of faint but unmistakable cog-wheel breathing. Changes in the percussion note only rarely accompany these slighter signs and when present are manifested only by a slight relative impairment rather than by actual dullness. Such signs may be limited to a very small area or they may occasionally be detected over a surprising portion of a lobe. In their more marked stages several or all of these signs may be combined in more marked degree and may be accompanied by the presence of few or many medium or fine moist rales, occasionally by subcrepitant rales. Their characteristic features lie in their insidious appearance, their persistence over long quiescent periods with little change and frequently the relatively slight degrees of physical impairment and meagre symptoms with which they are associated.

The literature of these earlier stages has been well reviewed by Field,⁴ who calls attention to these conditions as they occur in children. The range of severity of this syndrome appears to present all gradations from the mildest type in which the symptoms and signs persist for a few months and disappear without recurrence, to those in which the clinical picture merges with that of chronic bronchitis. The course may be benign with recovery in a few months or the condition may progress by gradual stages with frequent exacerbations to the fully developed picture of chronic bronchitis or of bronchiectasis. Its progress may be interrupted at any stage of advance and thereafter remain practically stationary for long periods of time, or become quiescent.

Pathologically the chain of events is difficult to follow for the very simple reason that patients do not die from the early lung lesions and the changes found in those dying of advanced chronic bronchitis bear little relation to those presumably present in the early stages. Hamman and Wolman¹ have reported one post mortem in a patient dying of an intercurrent pneumonia in which they found a "localized bronchitis, with infiltration of the bronchial wall and foci of bronchopneumonia about the smaller bronchi." The X-ray throws some light upon the gross distribution of the lesions but in the cases reported as well as those coming under my own observation, no constant picture has been found. Perhaps the most common change has been that of an accentuation of the normal lung markings, particularly of the smaller divisions of the bronchial tree, usually to a different degree on the two sides and sometimes confined to one side. This is sometimes accompanied by small areas of relative opacity in the surrounding parenchyma, distinctly denser in appearance than the fluffy areas of early tubercular infiltration. The distribution has usually been in the lower lobes, occasionally in both upper and lower lobes and rarely confined to one upper lobe. Physical signs pointing to hilus gland enlargement have been found more frequently in my experience than they have been confirmed by the X-ray, but such enlargement has not infrequently been shown in the films. It is difficult to decide whether the lesion primarily involves the bronchi or the lung parenchyma and whether it is properly to be regarded as a chronic bronchitis, a chronic peri-bronchitis or as a chronic pneumonitis. It is probable that all these changes are present in varying degree in different cases which are clinically much the same.

Whatever the pathology may prove to be it seems clear that it is difficult or impossible to draw a dividing line between those mild types of pulmonary infection and the early stages of chronic bronchitis. The inveteracy of the latter condition suggests that attention might profitably be turned to an attempt to recognize and treat these earlier stages in hope of warding off the latter.

There is a considerable body of evidence which suggests that the upper respiratory tract may play an etiological role in both the earlier and later stages of the disease. In considering disease

of the lungs the fact is frequently overlooked that the nares and nasal sinuses and the pharyngeal tonsillar tissue constitute an integral part of the respiratory tract, are frequently infected and are in direct connection with the lungs. As Rist⁵ aptly says it is comparable to ignoring the condition of the urethra and prostate in dealing with the diseases of the kidney, ureter and bladder. St. Clair Thompson⁶ in 1914 noted the influence of chronic sinusitis as a cause of persistent bronchorrhoea. The rapid disappearance of chronic cough and of the signs and symptoms of hilus gland enlargement in children following the removal of diseased tonsils and adenoids has long been noted. Rist in 1916 emphasized the relation of sinus disease to chronic pulmonary infections and laid particular stress on their differentiation from pulmonary tuberculosis. In a later contribution⁷ he calls attention to the analogy between the frequent and well recognized association of acute coryza with acute bronchitis and the probable similar etiological association between chronic nasal and chronic pulmonary infections, and states that in his wide war experience over 50% of the proved non-tuberculous pulmonary infections fell in this category. In this country Webb and Gilbert⁸ have called attention to nasal infections as an etiological factor in chronic bronchiectasis and state that they have "found few cases of bronchiectasis or chronic bronchitis in which infection of the accessory sinuses was not demonstrated." Mills⁹ has also reported three cases of protracted chronic bronchitis in children in all of whom marked antral infection was found. Mackey¹⁰ has studied 276 cases of chronic bronchitis bacteriologically and reports that he was able to secure positive nasal cultures in 256; that in many cases the nasal and sputum cultures show identical organisms and that he is convinced that "there is bacteriological and clinical evidence that the bronchitis is not primary but is the result of the nasal infection." Mullin and Ryder¹¹ have studied the route by which infections may travel from the nares and pharynx to the lungs and believe that their results indicate that this may be by way of the lymphatics or by direct inhalation.

Since January 1, 1921, 26 patients whom it has been possible to study with some care, have come under observation presenting the clinical picture of chronic bronchitis or of the so-called "chronic

non-tuberculous lung infections." Cases of surgical pulmonary infections, of bronchiectasis and of bronchial asthma as such are not included in this series, and pulmonary tuberculosis could be definitely excluded in each case. The age of these patients ranged from 5 to 65 years with a remarkably even distribution by decades, viz.:

0-10	10-20	20-30	30-40	40-50	50-60	60-70
4	3	4	4	3	6	2

Twelve were females, fourteen were males. The duration of the symptoms, which were those previously discussed as common in the chronic non-surgical, non-tuberculous lung infections, ranged from 4 months to 59 years. Three cases presented a duration under 1 year; eleven under 5 years and eight over 10 years. A diagnosis of pulmonary tuberculosis had been made at some time previously in 12, and many of these had been sent to Colorado for this reason. The onset of symptoms followed an acute illness, usually a "cold" or an acute bronchitis, in 11 patients; in 15 it was insidious and could not be definitely dated. Excluding a few in whom superficial streaking occasionally followed a severe coughing attack, only three gave a history of definite haemoptysis. Asthmatic attacks had been present at some time in 9 patients, in 4 of whom they were severe and persistent. In these 26 patients no foci of infection could be demonstrated anywhere in the body in 5; infected tonsils were present in a total of 13, alone in 6, associated with infection of the nasal sinuses or the teeth or both in 7. Infection of the nasal sinuses was demonstrated in 12 cases, alone in 7 and associated with tonsillar or tooth infection or both in 5. Apical infections of one or more teeth were found in a total of 9 cases, in only one, however, as the sole infection present. In 6 cases infections of other parts of the body were demonstrated, of the gall-bladder once, chronic appendicitis twice, of the prostate twice, and once an otitis media. Each of these was associated with infection of the tonsils, sinuses or teeth. Cultures from the infected foci showed a streptococcus 18 times, being the only organism present in 10 cases, associated with a pneumococcus in 9 cases, with the *M. catarrhalis* in one case. The latter organism was found in 9 cases, but never by itself. Other bacteria found but not regarded as of etiological significance were the staphylococcus aureus twice and the *M. totragen-*

ous once. Curiously enough the Pfeiffer bacillus was not reported in any of this series.

The treatment recommended comprised general hygienic measures designed to enhance resistance—removal of foci of infection where demonstrated and possible, and the use of autogenous vaccines. Of the 6 patients there were 11 who either did not follow up treatment, who were seen only for diagnosis, who have not been under treatment for a sufficiently long time to permit of conclusions as to its efficacy or in whom no foci were demonstrated. Of the remaining fifteen all received appropriate hygienic treatment. In six of these all demonstrated foci were removed and no vaccine given with improvement in three, temporary improvement in one, no improvement in two. In six patients for various reasons demonstrated foci were not removed but autogenous vaccines containing the organisms present in those foci were administered over varying periods of time. Of these two showed improvement, three temporary improvement and one no improvement. In three patients in whom it was possible to remove demonstrated foci and to administer autogenous vaccine over a satisfactory length of time, all are recorded as improved. Improvement is here used to indicate freedom from symptoms and absence of signs of chest activity over a period of from 6 months to 3 years; temporary improvement to indicate definite amelioration of both symptoms and signs at least temporarily. The series is too small to permit of any useful correlation between the results obtained and the type of focus or of organism involved, or of the effect of duration of symptoms upon the probable result though the impression has been gained that, as might be expected, the patients with a shorter history afford a better prospect of relief. It also seems justifiable to conclude that foci of infection about the upper respiratory passages are very frequently associated with these chest infections; that such foci frequently stand in a causal relation to the latter and that their removal constitutes an essential step in the curative treatment of these conditions.

The non-surgical, non-tuberculous lung infections form a closely related and overlapping group of which chronic bronchitis and bronchiectasis represent the advanced stages; they are in the aggregate the cause of much ill-health and a factor in shortening life; when well established the ad-

vanced stages are unamenable to treatment. It is therefore particularly important that the milder infections leading up to them be recognized as potential early stages to the end that the development of the more serious conditions may be forestalled by appropriate treatment of the antecedent lesions.

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INFLUENZAL MENINGITIS

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and

GEORGE F. KELLY, M.D.

MILWAUKEE

Influenzal meningitis is said to be comparatively uncommon. Rivers in 1922 found but one hundred and ninety-seven cases in the literature and added twenty-three personal case reports. During the past twenty months at the Children's Hospital we have observed five infants with this form of meningitis. Only tuberculous meningitis has been seen with greater frequency during this period of time. We are reporting this series as an addition to the number of cases in the literature, and believing as does Rivers that influenzal meningitis occurs much more frequently than is generally supposed we desire to review briefly some of the characteristics of this disease.

In regard to terminology we have retained the name "Influenzal" meningitis, although we are aware that the *B. influenzae* of Pfeiffer is probably not the etiological agent in influenza. Furthermore we do not believe it proven that the Pfeiffer bacillus is identical with the organism found in

this form of meningitis, although it probably is very closely related and belongs to the same group.

ABSTRACTS OF CASE RECORDS*

Case I. D. B., female infant, 1 year old, was admitted to the hospital January 6th, 1923, with the complaint of vomiting, cough, and fever of two weeks' duration accompanied by severe prostration. Two days before admission the mother noticed a slight stiffness of the neck and that the baby pulled at the right ear lobe. Physical examination showed a double otitis media. Temperature was 103.8 degrees. Both ear drums were incised and pus obtained. The temperature remained high. Two days later indefinite signs of pneumonia were elicited. On the fourth day after admission, signs of meningeal irritation were first observed, unequal pupils, stiffness of the neck, rigidity of the legs, but no Kernig sign. White blood count, 19,000.

Lumbar puncture revealed a cloudy fluid under increased pressure. Numerous gram negative bacilli were found in the stained slides. These organisms were identified as *B. influenzae*. The child expired on the 5th day after admission and 19 days after the onset of the illness.

Necropsy. Acute purulent cerebro-spinal Meningitis due to *B. influenzae*. 2. Otitis media. 3. Pulmonary edema (hemorrhagic).

Comment. No signs of meningitis were observed until the 17th day of the disease or two days before death. There was no evidence that the otitis media was the portal of entry for the meningitis.

CASE II. J. R., male, aged 21 months, admitted to the hospital December 11, 1922, with the complaint of fever, cough and prostration. He had never been ill before. Present illness began November 21st, 1922, twenty days before admission with fever, cough and grunting respiration. He was very ill for 4 days with a high fever. The temperature gradually declined and the baby seemed much improved until 3 days before admission when the temperature rose again and the cough reappeared. He was sent to the hospital with a diagnosis of pneumonia.

Examination. Well developed infant who is acutely ill. Eyes turned upward, pupils dilated. There is impaired resonance over the right base

*From the Milwaukee Children's Hospital.

and slight crepitation. Heart sounds slow and irregular. Slight muscular rigidity of neck. Tache cerebrale. No Kernig or Brudzinski. Scaphoid abdomen. Ears negative. Temp. 102.

Impression. Tuberculous meningitis and military tuberculosis.

Lumbar Puncture (Dec. 12th). Cloudy fluid under pressure. Guinea pig inoculation negative (subcutaneous injection). Gram negative bacilli which only grow on blood media. White blood count, 16,200.

The temperature dropped to 100 degrees on Dec. 13th and the child seemed better. The next day the temperature rose to 104 degrees and the patient became comatose. There were noted, strabismus, tremors of arms and legs and opisthotonos.

Death occurred on Dec. 15th. No necropsy.

Comment. The duration of the illness was twenty-four days. The signs of meningitis did not appear until the twenty-first day. The early symptoms were respiratory. The patient at first resembled one with tuberculous meningitis, but later gave the impression of an acute purulent meningitis. It is impossible to tell whether or not the meningitis was primary as necropsy was not allowed.

CASE III. W. K., male infant, aged 7½ months was admitted to the hospital September 18th, 1923, because of convulsions, fever and refusal of food. Before the illness of two weeks' duration this infant was a normal breast fed baby weighing 22 pounds. The onset was sudden with fever and convulsions. The fever and convulsions persisted. Today there is a constant tremor limited to the muscles of the right side of the body. The child is very drowsy and refuses food. The stools have been loose and green and the infant has been treated for gastro-intestinal toxemia. There has been no vomiting.

Examination. Temp. 105.6 degrees. Strabismus, contracted sluggish pupils, some neck rigidity. Positive Brudzinski sign, tache cerebrale, contralateral reflex. No Kernig, fontanelle not bulging.

White cell count 28,600. Spinal fluid contains 1900 cells per cu. mm. Many pleomorphic gram neg. bacilli found in the stained slides. (*B. influenzae*).

Death occurred September 18, 1923, 5 days after admission.

Necropsy. Brain only. Acute massive purulent cerebro-spinal meningitis (*influenzal*).

Comment. This probably was a primary *influenzal* meningitis. Again we have the picture of an acute toxemia lasting for two weeks and then the sudden onset of signs of meningeal irritation, with a rapidly fatal termination. There was no vomiting or opisthotonos at any time. No respiratory symptoms were noticed at any stage of the disease. The only positive findings at first were intestinal in nature.

CASE IV. G. G. female infant, aged 11 months, was admitted to the hospital December 23, 1923, because of convulsions, fever, drowsiness, rigidity of the neck and extremities. Before the onset of the present illness, the patient had been a normal breast fed baby who had never been ill. The present illness began 6 days before with a sudden onset of fever and a convulsion lasting for ½ hour. The convulsion was not repeated. Since that time the patient has had high fever, is very drowsy and refuses to nurse. There has been no vomiting at any time. Respiratory symptoms were not noted. On the day of admission the first signs of meningeal irritation appeared (bulging fontanelle, opisthotonos, and rigidity of the body).

Examination. Temp. 105.4 degrees. Acutely ill, stuporous infant. Bulging fontanelle, pupils do not react to light. Rigidity of neck, rigidity of body, tache cerebrale, knee jerks absent. No Kernig. Lungs and ears normal. W. B. C. 21,400.

Spinal Fluid. Under pressure, very cloudy, cell count 3,500. Many gram negative pleomorphic bacilli present (*B. influenzae*).

Death occurred 14 hours after admission. No necropsy.

Comment. An unusual feature in this case was the evacuation of frequent stools containing large amounts of blood. These stools were noted only on the day before death. The duration of the illness was but six days. The child was seen at the home for three days before admission. No diagnosis could be made as the physical examination was entirely negative except for the fever and toxemia. The urine was normal. Pneumonia seemed the most probable cause of the illness until the meningeal signs appeared on the day of death. Probably a primary *influenzal* meningitis.

CASE V. W. K., male, aged 16 months, was admitted July 13th, 1924, because of fever, shrill cry, tremor of hands, and drowsiness. The present illness began on July 9th, 4 days before admission with fever and a change in the mental condition (frightened and a peculiar staring expression). The next day a shrill cry was noticed. Prostration has become more severe and also drowsiness. There is a tremor of the hands and feet. Vomiting has occurred daily. Constipation is marked. The appetite is good.

Examination. Acutely ill, stuporous infant. Temp. 103.6 degrees. Bulging fontanelle, rigidity of neck muscles. Reflexes—positive Kernig, Babinski, Brudzinski, tache cerebrale, ankle clonus, exaggerated knee jerks, partial paralysis of right leg. Ears are normal. There is dullness and broncho-vesicular breathing over the right apex posteriorly. W. B. C. 30,000.

Lumbar Puncture. Turbid fluid under pressure. Cell count 3,700. Polys. 86%. Lymphocytes 14%. Globulin 4 plus. Sugar absent. Stained slides show many gram negative bacilli pleomorphic in nature mostly extracellular. Cultural characteristics. No growth on plain agar or Loeffler's media. On Blood agar small dew drop colonies are seen after 48 hours. Gram negative bacilli are obtained from the colonies. Indol test—positive (spinal fluid).

Intraperitoneal guinea pig inoculation is negative.

The temperature remained high and the patient's condition grew steadily worse. Death occurred on July 16th.

Necropsy (Brain only). Acute massive purulent meningitis. In each frontal lobe there is an abscess cavity filled with necrotic purulent hemorrhagic fluid. Cultures show the same organism that was recovered from the spinal and cisternal fluids. Diagnosis. 1. Acute Purulent Meningitis (*B. influenzae*). 2. Bilateral abscesses of frontal lobe.

Comment. The duration of the illness was seven days. Indefinite signs of pneumonia were found in addition to the meningitis. There was no cough nor nasopharyngitis. No history of a "cold" was obtained and the parents had no "colds." The meningitis was probably primary. The patient was seen on the third day by a physi-

cian and a diagnosis of meningitis was made at that time.

DISCUSSION

We are impressed by the multiform clinical picture in influenzal meningitis, and by our inability to discover any signs or symptoms which might aid in a specific diagnosis before the lumbar puncture. This is due to a great extent to the fact that Influenzal meningitis is a disease of infancy (79% of patients under two years) and the diagnosis of meningitis in infants is difficult. At this age we may have a typical picture of meningeal irritation without meningitis, and on the contrary there may be an extensive meningeal involvement with no characteristic signs or symptoms. Convulsions were present early in two of our patients and absent until late in the other three.

It has seemed to us that the disease could be divided into two stages. First a stage of toxemia with few or no cerebral symptoms, and secondly the more or less rapid development of signs of meningeal irritation. During the second stage a diagnosis of meningitis is possible and the spinal fluid examination gives the correct etiology. The second stage may not occur until a day or two before death, as in one of our cases, or it may be seen very early in the disease.

Influenzal meningitis is commonly mistaken for cerebral pneumonia, because of the high fever and leucocytosis, rapid respirations, and usually indefinite pulmonary findings. However a pneumonia is often associated with the meningitis, and this further complicates the diagnosis. It is easy to see why this type of meningitis is frequently overlooked.

The spinal fluid is usually cloudy and becomes more purulent as the disease progresses. A slide stained with the gram method gives a picture that is not seen in any other type of meningitis. The cells are chiefly polymorphonuclear and many gram negative bacilli are seen. Most of them are extracellular. The characteristic feature of their appearance is their pleomorphism. There are all forms of bacilli, some so small that they resemble cocci, others look like diplococci (the ends of the bacilli stain more heavily, and still others are long wavy, filamentous organisms. Cultures on media which do not contain hemoglobin are always sterile. On blood media small dew-drop colonies, best seen with a magnifying glass, are observed

after 48 hours. The organisms recoverable from the cultures may show pleomorphism, especially when grown on Avery's alcate agar, a very favorable medium for cultivation of all forms of *B. influenzae*.

A further aid to rapid diagnosis is the indol test proposed by Rivers. A tube of spinal fluid is incubated for 18 to 24 hours. The indol is extracted with ether and a few drops of formalin added. Then eight to ten drops of sulphuric acid are added, and if indol is present, a pink color is produced. Rivers tests for indol with Ehrlich's reagent (dimethylamidoazobenzaldehyde). The indol test is negative when the spinal fluid is first withdrawn, but becomes positive on incubation. The diagnosis of influenzal meningitis is made by the gram stained slide from the spinal fluid, the indol test, and the cultural characteristics of the organism. We have usually made the diagnosis from the gram stained slide, and confirmed it with the other two tests.

The relation between the meningitic and the respiratory strains of the influenza bacillus has been much discussed. The evidence at present is in favor of their non-identity. With agglutination reactions and fermentation tests, the meningeal and respiratory strains are shown to be dissimilar. Rivers found that the meningeal strains were pathogenic for rabbits if injected intravenously. The respiratory strains he tested were non-pathogenic. In influenzal meningitis the organisms can often be recovered from the blood, and they are usually found to be identified with the bacilli isolated from the spinal fluid.

All of this evidence is in favor of the view of Klinger that influenzal meningitis is usually a primary disease, and not secondary to a respiratory infection as was first supposed. Further corroboratory evidence for this view is also to be had. Influenzal meningitis occurs independently of epidemic influenza. In some patients at necropsy only a meningitis is found. In others the pathology is evidently secondary to the meningitis. In many patients no history or signs of respiratory infection can be found.

There is no doubt that the respiratory strains of *B. influenzae* can occasionally produce meningitis, but that it is not the usual method of infection seems evident. The histories and findings in our cases are in accord with the belief that influenzal

meningitis is primary and not secondary to a respiratory infection.

The mortality in children under two years is very high (97% in 152 cases) as is the mortality in all forms of meningitis in infancy. Treatment is very unsatisfactory. The serum of Wollstein is not used at present, as it seems to be of no value. Repeated lumbar punctures are of symptomatic benefit. There are no drugs of any value except sedatives.

CONCLUSIONS

Influenzal meningitis is a disease of infancy with a very high mortality. There is no typical clinical picture and the diagnosis is difficult. Examination of the spinal fluid will give the correct diagnosis which is established by the gram stained slide, the indol test, and the cultural characteristics of the bacilli. From the study of our five cases we believe that the disease is usually primary and not secondary to a respiratory infection.

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We desire to express our thanks to Drs. Boorse, Fellman and Kastner on whose services the patients were studied, for permission to report these cases.

STANDARDIZED TOXIN NOT AVAILABLE

Scarlet Fever Toxin. Scarlet fever toxin has been furnished by the John McCormick Institute to some city and state health departments. Physicians inquiring for this material, should apply to their local health department. There is an increasing demand for standardized toxin that the Drs. Dick believe should be met; however, because the toxin must be standardized on human beings, the commercial companies are going to find it difficult to standardize accurately. (*Jour. A. M. A.*, Aug. 30, 1924, p. 705.)

DR. DAWSON APPOINTED

Dr. D. L. Dawson, Rice Lake, has been appointed a member of the Committee on Public Policy and Legislation of the State Society. He succeeds Dr. G. W. Nott, Racine, resigned. The committee is now composed of Dr. O. B. Bock, Sheboygan, chairman; Dr. J. J. McGovern, Milwaukee; Dr. D. L. Dawson, Rice Lake; and Mr. J. G. Crownhart, secretary.

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"LET GEORGE DO IT."

Under this head we list each month definite offers of service available to our readers—the members of the State Medical Society, of Wisconsin. Additions will be made from month to month but if you have a need not covered here your Secretary-Managing Editor will do his best to fill your needs. Address J. G. Crownhart, 558 Jefferson St., Milwaukee.

1. PACKAGE LIBRARIES are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, and Control of Communicable Diseases. Address Package Library Dep't., Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. MEDICAL BOOKS will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. PHYSICIANS' EXCHANGE COLUMN is open to all members without charge.

4. NEW SCIENTIFIC PUBLICATIONS listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. STATE LAWS and departmental rulings can be secured through the Secretary's office.

6. LEGAL ADVICE upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

EDITORIALS

THE 28TH ANNUAL MEETING

MEMBERS of the Brown-Kewaunee County Medical Society are to be congratulated on the success of our annual meeting just past. That the meeting was a success has been attested on every hand. A new record was set in attendance for meetings held outside Milwaukee. The large proportion of those in attendance that attended each of the scientific sessions, including the first and last papers, was evidence in itself that the program had been given unusual attention and thought. The minor details that make or mar a meeting had all been foreseen and care was given them.

All this goes far to produce a successful meeting but even more was accomplished. The members of the local society were hosts in every sense of the word. They were at the meetings, they were meeting the visiting members and guests, and the result was a most evident spirit of good fellowship and informality.

COOPERATIVE EFFORT SUCCEEDS

A task such as the production of a successful annual meeting requires certain chairmen of major committees. It requires committees and sub-committees. No small group of men can accomplish all that must be accomplished in such an undertaking. It requires active cooperative effort on the part of all the members. That effort was given. The result of such work speaks for itself.

THE NEW OFFICERS

Elsewhere in this issue we publish a list of the new officers who will assume their duties January first. We extend the congratulations of the members to these new officers. Their election is an honor. That honor also carries responsibilities and we know that those responsibilities will be willingly and earnestly assumed.

TO THE DELEGATES

The 1924 House of Delegates established a record for efficient despatch of the business that awaited its consideration. An excellent policy was adopted when the important reports of committees and officers were referred to reference committees for more detailed consideration than might be had on the floor. That policy should be continued for the future. The December issue of this Journal will carry the transactions of the House in full. They will be of interest to every member.

CONSTRUCTIVE CRITICISMS

After the 1923 annual meeting a member in western Wisconsin wrote this Journal with respect to certain features of our meetings that deserved future attention. The published letter was a criticism but, more than that, it was a constructive criticism. The suggestion that letter contained was incorporated into the 1924 meeting—it was the smoker. We believe the smoker with the free and full discussion of certain of our socio-medical problems was well worth while. It can be developed and improved for the future meetings but the start was good.

We mention this as a demonstration of the oft repeated statement that the State Medical Society of Wisconsin is the Society of each of its members. It will ever be found responsive to suggestions. May it always continue to receive such material aid.

A PROGRESSIVE POLICY

OUR ADVERTISING pages in this issue contain the first of a series of messages to the profession on our Wisconsin State Sanatorium. This series of advertisements emanating from Statesan and approved by the State Board of Control is evidence of a new and progressive spirit of interested service by a state owned institution.

This series of twelve full pages is a series of messages in every sense of the word. They contain information of vital importance to the pro-

fession; information that hitherto was only available upon individual request and as a result is not generally known.

There are few phases of state activity that are of more interest to the profession than that now to be described in our Journal. This series merits your attention.

TREATMENT OF CHRONIC DUODENAL ULCER

BALFOUR recently contributed a study of the results of gastroenterostomy in duodenal ulcer and its complications based on the reports of the present condition of 1,000 patients on whom the operation was done ten or more years ago. It is reassuring to find that in considering gastroenterostomy as the basic operation, among those proposed and practiced, surgeons have not misplaced their confidence. Advocates of radical resection of healthy portions of the stomach and duodenum in the treatment of duodenal ulcer have gained some following of late and argument regarding the relative value of various operative procedures has been especially active since the recent visit of Finsterer. Leading American surgeons have leaned toward less radical procedures and the statement of Mayo that the most frequent cause of surgical failure in duodenal ulcer is to operate when there is no ulcer and that failure of gastroenterostomy to relieve symptoms should often be classified not as a failure to cure ulcer but as a failure to cure a wrong diagnosis represents the satisfaction with which results of relatively conservative operations are viewed.

This attitude of conservatism among surgeons is manifest not only in their selection of the type of operation but in their attitude toward medical treatment. Charles H. Peck has contributed an article which appears in the Annals of Surgery for July in which he recounts his own experience and in which he emphasizes the point that there exists less difference of opinion between surgeons and medical men regarding the treatment of chronic duodenal ulcer than is popularly supposed. His article will prove refreshing reading to conservative surgeons and internists alike. He agrees with the internist that early uncomplicated cases should first receive medical treatment and that a considerable number of patients are cured or at least kept in reasonable comfort thereby for long periods of time. He says, "The surgeon has no quarrel with

patients who wish to bear recurring periods of discomfort rather than submit to the hazards of an operation provided that they have a clear understanding of the situation and of the risk of the possible occurrence of hemorrhage, perforation and obstruction."

It should be noted that under medical treatment many people are compelled to undergo loss of time because of malnutrition, pain or hemorrhage. Peck is considerably disturbed over the tendency to advocate radical resection of the duodenum and portions of the stomach in this disease. In his experience gastroenterostomy alone has proven effective as a cure in from 80 per cent to 90 per cent of the cases. He believes that radical resection should be reserved for the small percentage of cases in which gastroenterostomy has failed to relieve the ulcer syndrome; for certain hemorrhage cases; cases of inflammatory mass in which malignancy may be expected, (a two-stage procedure), and possibly for the two per cent in which gastrojejunal ulcer develops. One cannot put down his article without the conviction that to a large experience he has added the leaven of common sense.

S. J. S.

MEDICAL EXAMINERS TO MEET

A special meeting of the State Board of Medical Examiners will be held in Madison on Wednesday, September 24th. At this meeting some 18 applications for reciprocity will be considered as well as other special business. Dr. R. E. Flynn, State Bank Building, LaCrosse, is secretary of the board and Dr. J. Gurney Taylor, Wells Building, Milwaukee, is president of the board.

President J. Gurney Taylor has announced the appointment of the following committees:

Reciprocity: Drs. Ripley, Hopkins, Flynn and Brewer.

Examination: Drs. Murphy, R. B. Cunningham, Rodecker, and Taylor.

Schedule: Drs. Flynn and Taylor.

Midwives: Drs. Hopkins and Rodecker.

HEALTH EXHIBIT AT MILWAUKEE

An extensive health exhibit of an educational nature will be held in Milwaukee, September 27th to October 4th, in connection with the convention of the National Dairy Association. The exhibits will all deal with the general subject, "Feeding the Family."

THE JOURNAL CLINIC

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UNIVERSITY EXTENSION DIVISION
The University of Wisconsin

THREE MONTHS' PREGNANCY COMPLICATED BY TUBO-OVARIAN ABSCESS

BY ROLAND S. CRON, M.D.,

MILWAUKEE

The patient, Mrs. L. T., was first seen in October, 1922, at which time she complained of a tumor mass in the right lower quadrant of the abdomen with associated severe pains in the left lower quadrant.

She was 39 years of age. The menses had always been normal. The last period began on August 6. She had been married 19 years and had had three full term pregnancies and two abortions at three months. The last pregnancy was full term and occurred seven years ago. There was no history of pathological leucorrhea and no symptoms of an inflammatory lesion in the uterine adnexa.

The present trouble dated back to late September, 1922, at which time she complained of mild distress across the lower abdomen with associated cramping colicky pains lasting two days. The condition was diagnosed as pelvic tumor but after a short time she again felt practically well. One week later she developed a severe sharp pain in the left lower quadrant of the abdomen while lifting a heavy weight and was forced to go to bed. Coincident with the pain there appeared a scant bloody discharge. She had been confined to her bed for two or three weeks before entering the hospital. Her temperature had never been above 100°. In September the patient thought that she was pregnant but gave up that idea with the onset of her symptoms. She had lost 10 lbs. in three weeks.

The patient when first seen appeared septic. The teeth were in very poor condition and the breasts were multiparous. Abdominal examination showed a scanty panniculus adiposus. In the right lower quadrant was felt a semi-cystic smooth mass arising from the pelvis and filling the right lower abdomen almost to the level of the anterior superior spine. It presented all of the characteristics of a normal uterine pregnancy advanced

about 3½ months. This mass was apparently considerably displaced to the right and upward by a second irregular and extremely tender mass in the left lower quadrant to which no definite limiting wall could be elicited.

Pelvic examination showed a profuse thick purulent blood stained discharge but no signs of irritation. The perineum was multiparous. The cervix was continuous with the doughy mass in the right lower quadrant, a normal intrauterine pregnancy. Both the uterus and cervix were displaced to the right by a soft irregular mass which filled the entire left side of the pelvis and posterior cul de sac. It was continuous with the uterus and seemed to fade away into the surrounding tissues without a definite limiting wall giving the impression of a partially organized blood clot. Due to extreme tenderness the examination was somewhat unsatisfactory.

A tentative diagnosis was made of uterine pregnancy advanced about three months together with left tubo-ovarian pathology the exact nature of which was not clear but a ruptured ectopic mass was considered. A pelykogram gave no help in arriving at a diagnosis.

The blood picture was hemoglobin 80%, red cells 3,550,000 and 12,300 white cells.

The patient was kept under observation for eight days during which time there was no rise in temperature above 99.6 with the pulse ranging around 90. She passed small clots and remained very sensitive over the left side.

She was subjected to operation on October 28th at which time preliminary examination under gas ether anesthesia showed the mass on the right corresponding to a pregnant uterus while on the left was an irregular thick walled mass the size of an orange, firmly adherent to the floor of the pelvis. It was concluded that this was tubo-ovarian, but we were not certain as to its real nature.

Exploration of the abdomen and pelvis revealed a 3½ months' pregnant uterus displaced to the right by a tubo-ovarian mass the size of a large orange. It was firmly attached to the uterus, sigmoid and the rectum. It presented a tensely cystic nature and on aspiration was found to contain 8-10 ounces of thick green pus. The abscess was carefully removed and without undue trauma to the uterus. The patient stood the operation well.

She was kept well narcotized, but during the late afternoon passed a few small clots and aborted that evening. Her convalescence was otherwise uncomplicated.

Inspection of the tubo-ovarian mass removed showed the greater portion of the abscess cavity to involve the ovary. Microscopic report showed lymphangioma hypertrophicum, chronic abscess of the ovary, pyogenic infection, chronic purulent salpingitis, old gonorrhea; diffuse purulent inflammation of broad ligament, chronic purulent pelvic peritonitis with organizing hematoma. Cultures were negative.

This case presents a double problem, that of diagnosis and that of treatment. The history is characteristic of an ectopic pregnancy as shown by the missed menstrual periods, the personal sensation that she was possibly pregnant, the distress in the lower abdomen of a crampy, colicky-like nature, followed by a severe agonizing pain which came on after heavy lifting and with which there was associated a continuous scanty vaginal bleeding. Add to this the diagnosis of pelvic tumor by her home physician and we have a picture that is rather typical. The association of a ruptured ectopic and a normal intrauterine pregnancy is not at all unknown. I recall a similar case that went to full term following an operation for ruptured tubal pregnancy. There was nothing in this history that suggested a pelvic peritonitis either preceding or following the onset of pregnancy. Moreover, it is difficult to conceive of conception occurring in the presence of such a lesion in one tube and ovary and it is even more difficult to imagine a pregnancy once started to continue in the presence of such an active lesion.

The associated left sided pathology was difficult to fathom. Without anesthesia the tubo-ovarian mass presented a picture strongly suggestive of a tubal pregnancy which had ruptured with hemocele formation. Other pathology that had to be considered was tubo-ovarian abscess, pyosalpinx with pelvic peritonitis and perioophoritis, adherent dermoid cyst, solid or cystic ovarian tumor associated with peritonitis, intraligamentous cyst, uterine fibroma with pelvic peritonitis. Most of these lesions can be ruled out without further consideration. The diagnosis was limited to ectopic tubo-ovarian abscess and ovarian dermoid.

The one diagnostic procedure here that would have cleared the situation would have been puncture of the post cul de sac via the vagina with a large caliber needle followed by aspiration, a procedure however that would have carried a certain amount of risk. The aspiration of oldblood would have pointed absolutely to ectopic gestation, while pus would have determined the presence of an abscess and sebacious material that of a dermoid cyst.

With such a diagnosis made by aspiration what would have been the most conservative procedure? Would it have proved wise to perform a posterior colpotomy with drainage? Naturally one does not wish to subject such patients to repeated anesthesia but an aspiration followed by culture of the pus removed would have determined whether it was safe to drain by colpotomy, but it would have entailed delay of several days at best. On the other hand if an active abscess had been drained by colpotomy and the patient had aborted a dangerous post abortal sepsis would probably have resulted. The other alternative was to proceed by the abdominal route as was done with removal of the pathology by as careful technique as possible. Further temporizing was unsafe and not conservative. On the whole it is believed that the proper procedure was to operate by the abdominal route.

A NOTE ON TWO UNUSUAL DISLOCATIONS.

BY RALPH M. CARTER, M.D., F.A.C.S.,
GREEN BAY.

Recently, examples of two unusual dislocations have come under my care. They are both quite rare, and for this reason, I believe I am justified in placing them on record.

The first one was a dislocation at the distal radioulnar articulation. The patient was a male, 50 years of age, a millwright by occupation. While engaged in applying belt dressing to a moving belt, in some way his sleeve became caught in the belt, and he sustained a violent twist of the right wrist. He immediately consulted a physician who had an X-ray made, but whose attention was evidently so centered upon finding a fracture that he entirely overlooked the dislocation. He diagnosed a sprain, and treated it with rest and local applications.

As the case did not progress satisfactorily, about eight weeks after the accident, the patient was referred to me for examination.

Upon inspection of the anterior aspect of the right wrist, there was to be seen a marked prominence over the lower end of the ulna; this prominence was hard, and of bony consistency, and was evidently the end of the ulna. Upon inspection of the posterior aspect, a corresponding depression or flattening was to be noted, with absence of the ulnar condyle from its usual situation. Flexion and extension of the wrist joint were practically normal, which was also true of adduction and abduction; pronation and supination of the forearm, however, were entirely absent. An examination of a stereoscopic X-ray (Figs. 1 & 2) showed a complete anterior dislocation of the distal end of the ulna at the radio-ulnar articulation.



Figure 1. Case 1. Antero-posterior view of radio-ulnar dislocation.

Under general anaesthesia, reduction was readily accomplished, although the condition showed a pronounced tendency to recur. This was prevented by applying splints for a week, when passive motion was begun. The patient made a complete recovery in six weeks, and returned to work.

This case emphasizes the necessity for giving every skiagram the most careful scrutiny. Each line and shadow on a negative has a meaning, and in all injuries in the neighborhood of joints, it is not sufficient to assure ourselves that there is no



Figure 2. Case 1. Lateral view of radio-ulnar dislocation.

fracture present; we must also make certain that the normal relationships of the bones to one another are preserved. These things are so obvious that the statement of them practically amounts to a truism; nevertheless, I feel that it can do no harm to stress them for the benefit of the man in general practice who does not have access to the services of an expert radiologist, and who must interpret his own films. In the case just reported above, following the accident, there was much swelling of the surrounding tissues, with considerable effusion into the joint; the doctor assumed that there must be a fracture present, and took the skiagram with this idea in mind; a cursory examination showed none, and the dislocation was not sufficiently obvious to be discovered without a more careful analysis of the film, which he did not make, consequently he overlooked the actual condition present. From two or three unpleasant experiences of my own in the past, I know how readily this can occur.

The second case was a posterior dislocation of the second, third, fourth, and fifth metacarpals at the carpo-metacarpal joints. The patient was a carpenter, 28 years of age. While engaged in shingling a roof, his scaffolding gave way, causing

him to fall to the ground, a distance of 25 feet.

Upon examination of the left hand and wrist, there was seen to be a marked ridge across the back of the hand, at about the carpo-metacarpal articulation, with a corresponding depression in the palm. The skiagram showed the proximal ends of all the metacarpals with the exception of the first, dislocated from their normal anatomical position, and resting on the posterior surface of the distal row of carpal bones. (Figs. 3 & 4.) In addition to this injury to the left wrist, he sustained a comminuted fracture of the lower end of the right radius.



Figure 3. Case 2. Antero-posterior view of carpo-metacarpal dislocation.

Reduction of this dislocation was readily accomplished under general anesthesia, but there was a marked tendency to recurrence. This was prevented by employing a palmar splint, with a thick pad over the ends of the metacarpals posteriorly. Complete recovery in this case was delayed several months, but ultimately occurred. The functional disability was due to loss of flexion, probably from adhesions of the extensor tendons as a result of exudate in their sheaths. Due to the readiness with which recurrence took place, passive motion could not be instituted as early as I should have liked, which undoubtedly made recovery slower.



Figure 4. Case 2. Lateral view of carpo-metacarpal dislocation.

But with use, his condition gradually improved, and at the present time, there is no disability whatever.

PREVENTIVE MEDICINE

Edited by

W. D. STOVALL, Chairman

Section on Preventive Medicine, State Medical Society of Wisconsin

This Section is open to all members of the State Medical Society and others who wish to discuss subjects pertaining to Public Health. Original articles, and criticisms of statements appearing in this section are earnestly solicited. Questions concerning public health procedure will be answered. Address communications to Dr. W. D. Stovall, State Laboratory of Hygiene, Madison, Wis.

MYCETOZOA OF THE INTESTINES

F. E. CHURCH, F. A. P. H. A.

BACTERIOLOGIST, MILWAUKEE HEALTH DEPARTMENT.

The Mycetoza are mentioned in treatises of zoology as to their classification and life history, but very little is known regarding their parasitic properties. This group of organisms, which are considered as intermediates between animals and plants, were classified by the early naturalists as Myxomycetes. More recently they have been classified either as a suborder of Protozoa, while the Myxomycetes as a suborder of Mycetoza by de Bary.

As there are very few, if any, cases reported in medical literature regarding Mycetoza infections, the author believes this case would be of interest to the medical profession, and would perhaps stimulate further observation and study along the line of fungus infections.

HISTORY

The patient's name is Elizabeth May C., age four years, address No. 750 47th Street, Milwaukee, Wisconsin.

The child was in good health until December 31, 1923, when she began to complain of pain in the abdomen, and had marked constipation, loss of appetite, nausea, vomiting, headache and a temperature of 99° to 101° F.

PHYSICAL FINDINGS

Her face was flushed, and there was a distinct musty odor to the breath. The heart and lungs were normal. There was a general tenderness over the abdomen, but was not localized. Other examinations were negative.

CLINICAL COURSE

The symptoms lasted for four days, during which time large doses of milk of magnesia and phenolphthalein were given. Finally the bowels moved after four days, and a large amount of light yellowish green watery fluid was passed. There were about four such movements during the fourth day before the stool became normal and the child began to recover, took some nourishment, musty odor disappeared from the breath, temperature became normal, and there was a gradual return to her former health.

Dr. R. F. Teshan of Milwaukee was in attendance.

MICROSCOPICAL EXAMINATION

The stool was semi-solid in consistency, and looked like an intestinal flower garden. The plant like growth was spread over the surface of the liquid in yellowish green pigmented leaf-like structures. There was very little undigested food material present, and an absence of the usual putrefactive odor following the ordinary constipation. The musty odor was similar to that noted from the breath.

MICROSCOPICAL AND CULTURAL OBSERVATIONS

Examination of a wet specimen showed the following: Numerous protoplasmic masses of spores containing a yellowish green pigmented material which was contained in the network of Mycelial

threads. This mass was attached in some instances to pieces of vegetation, and other particles of undigested food, while others floated free in the liquid.

In addition there were numerous intestinal bacteria, such as *B. Coli*, *B. Sporogenesis*, and *B. Proteus* group.

The predominating organism, however, was the fungus-like growth which appeared to have grown for a considerable length of time. The growth seemed to be neither a fungus or a bacterium, and was classed as a Mycetozoa. This was confirmed by Prof. Smith, Botanist at the Milwaukee Public Museum, who stated it was unusual to find it in the intestines and difficult to classify.

A small amount of the material, however, was saved for cultivation and study. An attempt was made first to isolate the Mycetozoa from the various other bacteria, including the spore bearers in the following way.

Small portions of the fungus growth were transplanted in 6% glycerine broth, sterile urine of the specific gravity of 1025 plus 2-5 phenolphthalein, and sterile water with a little cane sugar added. The tubes were incubated at 37° and 20° C. for several days, daily observations were made, and the various stages of the growth noted.

The best development seemed to take place in the sweetened water where the bacterial growth was retarded, and the spores swelled and developed into the following stages:

The first development noted was the ruptured spore with its contents floating free in the water as the Swarm Cell. This Swarm Cell moved about the field and contained a contractile vacuole. After a day or so it was noted that the cells seemed to collect together into what is known as Plasmodium stage. This mass of cells contained lime granules, and when the preparation dried crystals of calcium carbonate appeared. This is sometimes known as the period of rest. From some of the cells in the Protoplasmic masses a stalk was developed upon which sporangia formed. Still others continued to branch, forming capillitium threads with here and there live knots which contained lime granules.

Judging from its Life-cycle it would be classed among the Euplasmodia in which the sporangia are provided with lime (*Calcarineae*), namely, the order of *Physaraceae*.

REMARKS

Although dealing with an organism of which very little is known regarding its parasitic properties, we may venture to make a few suggestions relative to its effect on the intestinal tract. The organism by its partial Saprophytic existence may change the character and reaction of the intestinal contents so that it becomes more favorable for bacterial growth and toxic production. It is quite possible that this type of organism was associated in some way with the intestinal condition described above.

The field of research regarding the cause of gastro intestinal disorders is a large one, and there remains much to be worked out. It is, also, possible that cases similar to the one reported have occurred, but have been overlooked, or have not been considered worth while reporting.

PUBLIC HEALTH NOTES

There is no state law nor board regulation prohibiting operating a nurses' registry.

In a Richland county case, it was stated that if parents or near relatives refuse to sign an affidavit as to the age of a child there is no way the child's legal age can be established unless by court action.

A health officer was notified that a death certificate signed by a chiropractor could not be accepted. The health official was permitted to make out the record from information obtained from relatives or others familiar with the facts. In this case the chiropractor filled in the cause of death as "nerve impungenst at the 2nd dorsal vertebra"—a new definition which puzzled officials responsible for classifying death causes for the federal bureau.

Ruling was asked whether it is permissible to date the quarantine period in scarlet fever, in cases where reporting of the case was delayed, from the beginning of the disease instead of from the day quarantine was established. The State Board of Health replied that the rule was made to apply to all cases alike. The rule is intended to encourage a medical diagnosis early in the disease, not only to determine its nature but also to have quarantine established as early in the course of the disease as possible, thus lessening inconvenience to the family.

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LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES

Table with 3 columns: County, President, Secretary. Lists medical societies across Wisconsin counties with their respective officers.

SOCIETY PROCEEDINGS

B-P-W-S-B COUNTY

Members of the Barron-Polk-Washburn-Sawyer-Burnett County Medical Society met at St. Croix Falls on September second. The following program was presented: "Treatment and Prevention of Scarlet Fever," Dr. H. E. Marsh, Madison; "Role of Infection in Nervous Diseases," Dr. W. H. Hengstler, St. Paul; "Studies in Blood Pressure," Dr. F. B. Morrissey, St. Paul; "Physiotherapy," Dr. G. A. Larson, Hayward; "A Few Foreign Proteins," Dr. Caldwell, St. Croix Falls, and "The Venereal Problem in the Country" by Dr. Reigel of St. Croix Falls.

Following the scientific program Dr. Dawson, Secretary, gave a report on the annual meeting of the State Medical Society.

SHAWANO COUNTY

The summer meeting of the Shawano County Medical Society was held July 23rd at the summer home of Dr. W. J. Ragan, Shawano, at Shawano Lake. The scientific program included Dr. T. J. Redelings, Marinette who is our Councilor; "Diagnosis of Lesions" by Dr. Duer of Marinette; and a paper on "Radium Therapy" by Dr. Quigley of Green Bay.

CHIPPEWA COUNTY

Members of the Chippewa County Medical Society met at Hotel Northern, Chippewa Falls, August eighth. Dr. Horace Greeley, Madison, presented a paper on the subject of "Hay Fever and Asthma." A dinner preceded the scientific program.

WAUKESHA COUNTY

A special meeting of the Waukesha County Medical Society was held at the home of Dr. H. G. B. Nixon, Hartland, on September 3rd. The scientific program included "Hypertonic Infants," Dr. Roy Greenthal, Milwaukee; "Exanthem Subitum," Dr. Alfred Kastner, Milwaukee, and a report on cases of "Thrombocytopenic purpura," by Dr. A. B. Schwartz.

EAU CLAIRE COUNTY

The August meeting of the Eau Claire County Medical Society was held at Eau Claire on August 25th. A dinner preceded the scientific program which included "Antitoxin Treatment of Scarlet Fever," Dr. H. E. Marsh, Madison, and "Lumbo-Sacral Complications and Treatment," by Dr. F. E. Chandler, Northwestern University, Chicago.

BROWN-KEWAUNEE COUNTY

A meeting of the Brown-Kewaunee County Medical Society was held at the Beaumont Hotel on Monday evening, August 18th. This meeting was to complete final arrangements for the State meeting opening the next evening.

WINNEBAGO COUNTY

A special meeting of the Winnebago County Medical Society was held at the Municipal Club House, Oshkosh, on August 22nd. Following a banquet, Mr. J. G. Crownhart, Secretary of the State Society, outlined the work of the full time officer. Dr. Louis M. Warfield, University of Michigan, was a guest of the Society and commended Wisconsin for its present society policies.

ROCK COUNTY

Members of the Rock County Medical Society with their families enjoyed the annual summer outing at the Janesville Country Club on July 31st. During the afternoon the members played bridge and golf and then sat down to a special steak dinner.

Beloit members of the Society staged a burlesque minstrel show following the dinner which included "the greatest galaxy of stars outside the Milky Way." Mr. Stephen Bolles, editor of the Janesville Press-Gazette, gave the sole address of the evening on the subject "Is This a Sick and Ailing World?"

JEFFERSON COUNTY

Waterloo members were hosts for the September meeting of the Jefferson County Medical Society. The meeting was preceded by a banquet at Fireman's Park. Following the dinner a business session was held. The program included Dr. Harold Marsh, Madison, on "Prevention and Treatment of Scarlet Fever," and Mr. J. G. Crownhart, Secretary of the State Society, who spoke on the work of the Society.

A county committee on Public Policy and Legislation was appointed by President Dennis to consist of Drs. T. C. H. Abelmann and Phillip Leicht.

DOUGLAS COUNTY

Members of the Douglas County Medical Society were entertained on August 9th at the summer home of Mr. Ray J. Nye, Forest Hill Lodge, Wascott. Drs. P. G. McGill and W. H. Zwickey presented the scientific program. Guests at the meeting included Drs. A. B. Taylor and C. S. Shearer, Omaha, Nebraska, who are members of the Douglas County, Nebraska, society.

NEWS ITEMS AND PERSONALS

Dr. W. P. Sperry, Phillips, has resumed his practice following recovery from a long illness.

Dr. R. C. Brett, Green Bay, celebrated his 91st birthday on August 23rd. Dr. Brett first practiced medicine forty-eight years ago and during the Civil War was with Sherman on his famous march to the sea.

Dr. George Harrison, Ashland, has been named county physician for Ashland County.

A new medical and surgical clinic has been opened at Madison to be known as the Chorlog Clinic. Dr. J. K. Chorlog has as his associates Dr. B. S. Spaulding Hill, New York City; Dr. R. L. Fortney, dentist, Viroqua; and a third associate to be announced later. The clinic is located at 301 South Pinckney Street.

Dr. Phillip R. Fox, Madison turned the first shovel of dirt last month for the addition of two new wings for St. Mary's Hospital. The cost of the wings will be upwards of \$500,000 and will be completed in eighteen months.

Dr. Norman Hollenbeck, 2664 Fond du Lac Avenue, Milwaukee, has associated with him Dr. Edgar Habeek, former House Physician of the Deaconess Hospital. Dr. Hollenbeck will devote most of his time to obstetrics.

Two additional appointments to the staff of the State of Wisconsin General Hospital and the Medical School have been announced by the University Regents. The appointees are Drs. Albert S. Crawford, Rochester, Minn., and Edgar M. Medlar, Mount McGregor, New York.

Dr. Crawford was in the department of brain surgery at the Mayo Clinic and will continue that work in his new position. Dr. Medlar is appointed as assistant professor of pathology.

Major Thomas S. Roch, U. S. P. H. S., has assumed his duties as chief surgeon at the National Soldiers' Home, Milwaukee. He succeeds Col. Myron Snell, resigned.

Nearly four million dollars was paid out during the past fiscal year for compensation and medical service under the state workmen's compensation act, according to an announcement by the state industrial commission.

A collection of eighteen noted etchings has been presented to the University of Wisconsin by Dr. Albert Ochsner, Chicago. The collection includes the etching "The Physician" which will be hung in the new state hospital.

As one of a series of drug robberies in the state, Dr. F. E. Tyron, health officer of Baraboo, had his office looted last month and lost some 500 quarter-grain morphine tablets.

While members of the family of Dr. A. J. May, Marinette, were sleeping, a robber entered the home, ransacked the house, and escaped with a sum of money and some other valuables.

Dr. W. G. Brickbauer, Plymouth, has been elected President of the Crocker Chair Company of Sheboygan. Dr. Brickbauer has assumed active management of the company.

A total of 143,858 specimens were submitted to the state laboratories of hygiene during the past year for examination as an aid to diagnosis. This is an increase of close to 5,000 specimens over the previous year according to Dr. W. D. Stovall, director.

Three removals have been announced during the past month. Dr. H. S. McGuinness, Medford, has now estab-

lished his practice at Tomahawk. Dr. B. F. Kraus has moved from Sun Prairie to Kenosha where he has opened his offices. Dr. H. W. Aldridge has removed from 816 South 8th Street to Rooms 211 and 212 Wood Block, Manitowoc.

The following have just entered the state: Dr. W. C. Frenzel, 310 Third Street, Wausau; Dr. Leo W. Peterson, Sun Prairie; Dr. Paul A. Reed, Mauston; Dr. E. D. Sorenson, with Drs. Ridgway and MacIntyre at Elkhorn, and Dr. John Meuhlhouser, Bavaria, X-ray department, St. Mary's Hospital, Green Bay.

MARRIAGES

Dr. Oliver W. Pfeifer, Sheboygan Falls, to Miss Frankie M. Ogle, Sheboygan Falls, on August 12th. They will make their home in Racine.

Dr. George H. J. Hoyer, Beaver Dam, to Miss Verna Agnes Daniel, Beaver Dam, at Chicago on July 9th.

Dr. Edward Sorenson, Elkhorn, to Miss Mildred Henry, Viroqua, at Viroqua on August 24th.

DEATHS

Dr. Herman A. Gilbert, Madison, died at St. Mary's Hospital, Madison, on August 13th after twenty-six years devoted to service in that city. Dr. Gilbert was born north of Hartford, Wisconsin April 10th, 1872. He received his early education in Wisconsin and then graduated from Heidelberg University, Germany, in 1896. For a year following graduation he took up interne work in Berlin and then returned to Hartford in 1897 where he first established his practice. In 1898 Dr. Gilbert moved to Madison where he has since practiced.

Dr. Gilbert was an honorary member of the Dane County Medical Society, the State Medical Society of Wisconsin, and a member of the American Medical Association. He was a former president of the Dane County Society.

Dr. Bertram W. Sippy, Chicago, died at his summer home in Michigan on August 19th. Dr. Sippy was born in the town of Willow, Richland county, Wisconsin, and received his early education in this state.

For nearly ten years he was professor of medicine at the University of Chicago and for twenty years a member of the faculty of Rush Medical School. Dr. Sippy was fifty-eight at the time of his sudden death.

Dr. Edward Meyer, Manitowoc, died at the age of fifty-eight on August twelfth. Dr. Meyer was born at St. Nazianz and was a graduate of Rush Medical School. Following graduation he practiced at St. Nazianz, Brillion, and two years ago moved to Manitowoc. Dr. Meyer was a member of the Calumet County Medical Society, the State Medical Society of Wisconsin, and of the American Medical Association.

Dr. G. T. J. Van Hengel, Waupun, died at his home at the age of eighty-one on August twenty-sixth. Dr.

Van Hengel was born in Holland where he received his medical education. He came to Waupun in 1869 where he practiced up to the time of his death.

Dr. Van Hengel was a member of the Dodge County Medical Society, the State Medical Society of Wisconsin, and of the American Medical Association.

Dr. John C. Murphy, Brussels, died in Milwaukee on August twenty-third. Dr. Murphy was born in Kewaunee County, Wisconsin, January 27, 1879, and graduated from Northwestern University in 1911.

Dr. William C. Kreul, Milwaukee, died at his home on August twenty-fourth. Dr. Kreul was a graduate of Marquette University but devoted his life to work other than in his profession. At the time of his death he was president of the William C. Kreul Company, office supplies.

SOCIETY RECORDS NEW MEMBERS

Horn, A. S., Stoughton.
Nesbit, W. M., Madison.
Quigley, L. D., Green Bay.

CHANGES IN ADDRESS

Smith, G. M., Chippewa Falls—Travelers Ins. Co., Hartford, Conn.

Johnson, James E., Holmen—Coon Valley.

Ruhland, G. C., Milwaukee—Health Dept., Syracuse, N. Y.

Vingom, C. O., Methodist Hospital—303 Beaver Bldg., Madison.

Christensen, J. W., Westby—Wis. Veteran's Home, Waupaca.

Walker, F. W., St. Croix Falls—257 So. Norton Ave., Los Angeles, Calif.

Tenney, H. K., 29 E. Wilson St., Madison—2110 Chadbourne Ave., Madison.

Stussey, S. G., Madison—Park Falls.

Gunderson, C. A. S., Deerfield—27 E. Main St., Madison.

Blanton, Smiley, Madison—Lymanhurst Hosp., Minneapolis, Minn.

ERRATA

Barta, Edw. F., Sturgeon Bay—1090 40th St., Milwaukee.

CORRESPONDENCE

July 31, 1924.

Editor, Wisconsin Medical Journal
Milwaukee, Wisconsin

In the June issue of the Journal I find a most interesting little paragraph (page 61), headed "What's In A Name?" In substance the article quotes a tabulation made by the New York State Department of Health of the "Serio-Comic Titles" in use by various cults of "irregular medical practice," and the whole list is referred to by the erudite and apparently serious writer as "indicating the wide realm of quackery."

I want to offer positive and rather violent objection to the unreasonable inclusion of the following well-known and perfectly legitimate forms of therapy:

Diet Therapy,
Electro Therapy,
Hydro Therapy,
Helio Therapy,
Mechano Therapy,
Photo Therapy,
Physio Therapy,
Quartz Therapy,
Physical Culture.

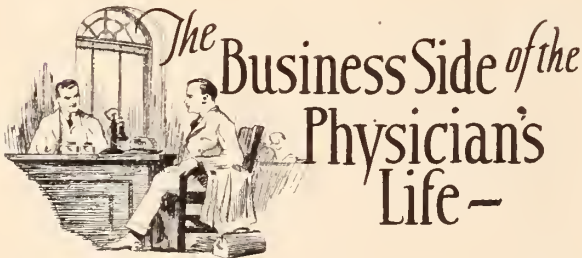
It seems altogether unnecessary to call attention to the fact that all of us make use of diet therapy. We realize of course the necessity for correct diet in the medical treatment of many diseases. We all prescribe hot baths, hot douches, hot applications, all of which are included in hydrotherapy. More and more we are realizing the extremely beneficial effects of the actinic rays of sunshine, which of course is heliotherapy, with the newer application of the ultra-violet rays as delivered by the modern quartz ultra-violet machines; but "photo therapy" and "quartz therapy" are also included in the forms of quackery! I was interested to see in the very same issue (page 30) a strong article which emphasized the value of ultra-violet energy in hay fever. Are we thus approving the quackery (?) of quartz therapy? In the same issue of the Journal you carry advertisements of the "Alpine" and "Kromayer" quartz lamps, also a full page on quartz light therapy in the advertisement of the Pengelly X-Ray Company, in the latter advertisement appearing also mention of the Diathermy Machine, which is again listed in the article referred to as a form of quackery! Other forms of electrotherapy are also taboo, according to the selected list.

I need not refer to some of the others mentioned such as "Mechanotherapy," "Physical Culture," etc., except to say that muscular and mechanical movements of joints, the prescription of exercise and corrective movements generally, are practiced by all of us as adjuvants to other forms of medical and surgical treatment. We may refer to all of the means mentioned above as Physiotherapy, which term is again listed as evidence of quackery.

It seems to me that undoubtedly quackery exists when any of these modalities are used as cure-alls by overenthusiastic exponents of their value. It is also true that irregulars and charlatans make use of some of these means which are included in the list; and in the hands of incompetent or unscientific men the methods are ignorantly used and disastrously abused. Hence there is a tendency on the part of the ethical medical profession to neglect or altogether omit the valuable forms of treatment by physiotherapeutic methods. My plea is for a sane and scientific use of physiotherapy in selected cases. The World War taught us the supreme value of some of these methods, and since that time hundreds of clinics throughout the country have instituted departments of physiotherapy,

and a large number of physicians have done the same thing in their private offices. I think it is undoubtedly true that the zeal of the manufacturers of apparatus has been in some cases detrimental. Their salesmen have placed the apparatus in hundreds of cases where the physician or operator has only the slightest knowledge of the technique of their use, and the physiological effects of the electric currents especially. The time is coming when every medical college will give scientific training in these methods; indeed, many of our leading colleges have already established chairs of physiotherapy. When this is universally done we shall intelligently make use of methods of therapy which are both reasonable and efficacious, and which we of the regular medical profession have too long neglected and relegated to the hands of ignorant charlatans and imposters. Physiotherapy is a legitimate adjuvant to accepted forms of medical and surgical treatment, nothing more. It is certainly not a panacea, but is really a specialty in medicine, useful only in a limited and selected number of cases. But results are positive and real. In its scientific application it is certainly not "quackery," our New York friends to the contrary notwithstanding.

J. C. ELSOM, M. D.,
Physiotherapist, Wis. State Hospitals,
Madison, Wis.



We have all heard of "Sucker lists" and the writer has sometimes wondered if he was included on some of these lists—the mail at times would seem to indicate it. For a minute consider that you are John Jones, promoter extraordinary with a small office, one desk, something to sell, a mailing machine, stamps, and two exits.

If you could purchase a first class list of say "selected" individuals, might not that offer a quick way to get rid of the stamps and secure some cash. A good many have found it profitable provided they could collect the cash before they were collected by Uncle Sam. Which brings us to our subject.

During the past month, Wisconsin physicians were solicited by The National Disabled Soldiers League with offices in New York City. This League sent the doctor some five or six pencils accompanied by a letter reminding them of the

horrors of war and asking if the doctor would not send them a dollar bill presumably to be used for the disabled soldiers. This touching appeal wound up by saying, "If you keep the pencils without sending the dollar—but no, you wouldn't do that."

Unfortunately some doctors didn't and sent the dollar. Some others called it to the attention of the writer. We made some little investigation and here is what General Frank T. Hines, Director of the U. S. Veterans' Bureau said of this organization under date of August 5th.

"You are advised that this organization does not have any standing before this Bureau and is not recognized in a cooperative relationship as are the American Red Cross, The American Legion, Disabled American Veterans of the World War, etc.

"The Bureau would prefer not to comment on the form of solicitation concerning which inquiry is made as it is at present the subject of an investigation."

So much for the Disabled Soldiers League but this is illustrative of a condition that but few may know as it now exists.

Your name is for sale. During the past month your Journal has received two solicitations from firms that desired to sell it lists of names. These companies will sell you a list of 135,969 physicians for the modest sum of \$400. Or better yet, buy a "selected" list of 29,525 physicians for only \$100. We have our own idea of what "selected" means. But to go on. You can buy lists of "selected" clubmen, plumbers, orthopedic surgeons, mustard brokers or individual investors "Financially Classified."

Now do you begin to understand why you received that letter last week that offered you an inside opportunity to invest in a first class oil well? Or was it radio stock? And if you are receiving these letters with any sort of frequency you can just bet your bottom dollar that you are one of those individuals whose name adorns a "selected" list. So do our sins find us out.

George Ade always has a moral for his little stories. We do not know just what he would say here but ours is "Know with whom you are dealing. If you don't know, find out."

A little caution will save you more money for your old age than the best interest bearing security you own.

Tri-State Medical Society Makes Preliminary Announcement for Milwaukee Meeting, October 27-31

With the announcement of the preliminary program material secured, plans are now well under way for the annual fall meeting of the Tri-State District Medical Association to be held at Milwaukee. A full five day meeting will be held this year from October 27th to 31st inclusive.

A special amphitheatre will be built in the large Gymnasium of Marquette University to accommodate the many hundreds of visiting physicians. Special dining facilities will be arranged in the building and the basement will be devoted to the commercial exhibit.

Arrangements for the large meeting have been taken over by the Milwaukee County Medical Society who extended the invitation. The committee heads for this work have been announced as follows: General Chairman, Dr. L. F. Jermain; Sub-committees, Dr. G. V. I. Brown; Reception, Dr. J. L. Yates; Hotels, Dr. E. Henes; Banquet, Dr. Frank Thompson; Publications, Dr. Arthur T. Holbrook; Publicity, Mr. J. G. Crownhart; Entertainment, Dr. Carl Henry Davis; Civic, Dr. H. M. Brown; Finance, Dr. Chester M. Echols; Liaison, Dr. Rock Sleyster; Auxiliary, Dr. Joseph Kind; Convention Hall, Dr. Ralph Morter; General Clinic, Dr. Frederick Stratton; Medical Clinics, Dr. Joseph Lettenberger; Surgical Clinics, Dr. Curtis Evans, and Specialties, Dr. J. Gurney Taylor.

The Program Committee for this meeting is composed of Drs. W. L. Biering, Des Moines; E. Starr Judd, Rochester; Dean Lewis, Chicago; Ernest Sachs, St. Louis, and John L. Yates, Milwaukee.

Among the eminent members of the profession and citizens who have accepted places on the program are the following:

Dr. Nicholas Murray Butler, President of Columbia University, New York, N. Y.
 Sir Arthur William Currie, President of McGill University, Faculty of Medicine, Montreal, Canada.
 Merritte W. Ireland, Surgeon-General of United States Army, Washington, D. C.
 Monsieur J. Jusserand, French Ambassador to United States, Washington, D. C.
 Edward E. Stitt, Surgeon-General of United States Navy, Washington, D. C.
 Professor Theodore Tuffier, Prof. of Surgery, Faculty of Medicine, Paris, France.
 Dr. John V. Barrow, Los Angeles, California.
 Dr. W. F. Brausch, Mayo Clinic, Rochester, Minnesota.
 Dr. George E. Brewer, Emeritus Prof. of Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

MAKE HOTEL RESERVATIONS

Members of the State Medical Society of Wisconsin planning on attending the Tri-State Meeting are advised to make early hotel reservations. Write the individual hotels or Dr. Edwin Henes, Jr., 445 Milwaukee Street, Milwaukee. Be sure to state when reservation is to begin, how many, and accommodations desired.

Dr. Alan Brown, Prof. of Pediatrics, University of Toronto, Faculty of Medicine, Toronto, Canada.
 Dr. Ralph C. Brown, Assistant Prof. of Medicine, Rush Medical College, Chicago, Illinois.
 Dr. C. Macfie Campbell, Prof. of Psychiatry, Harvard University, School of Medicine, Cambridge, Mass.
 Dr. Walter T. Connell, Prof. of Medicine, Queen's University, Faculty of Medicine, Kingston, Canada.
 Dr. John F. Cowan, Prof. of Surgery, Stanford University, School of Medicine, San Francisco, California.
 Dr. George W. Crile, Prof. of Surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.
 Dr. Samuel J. Crowe, Clinical Prof. of Laryngology, Johns Hopkins University, School of Medicine, Baltimore, Maryland.
 Dr. LeRoy Crummer, Prof. of Medicine, University of Nebraska, College of Medicine, Omaha, Nebraska.
 Dr. Walter E. Dandy, Associate Prof. of Surgery, Johns Hopkins University, School of Medicine, Baltimore, Maryland.
 Dr. William Darrach, Dean and Associate Prof. of Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.
 Dr. Vernon C. David, Assistant Prof. of Surgery, Rush Medical College, Chicago, Illinois.
 Dr. David J. Davis, Prof. of Pathology and Bacteriology, University of Illinois, School of Medicine, Chicago, Illinois.
 Dr. John B. Deaver, Prof. of Surgery, University of Pennsylvania, School of Medicine, Philadelphia, Pa.
 Dr. Laurence R. DeBnys, Prof. of Pediatrics, Tulane University, School of Medicine, New Orleans, La.
 Dr. George F. Dick, Assistant Prof. of Medicine, Rush Medical College, Chicago, Illinois.
 Dr. Charles A. Elliott, Prof. of Medicine, Northwestern University, School of Medicine, Chicago, Illinois.
 Dr. Leonard W. Ely, Prof. of Surgery, Stanford University, School of Medicine, San Francisco, California.
 Dr. Joseph Evans, Prof. of Medicine, University of Wisconsin, School of Medicine, Madison, Wisconsin.
 Dr. A. MacKenzie Forbes, Clinical Prof. of Orthopedics, McGill University, Faculty of Medicine, Montreal, Canada.
 Dr. William Goldie, Associate Prof. of Medicine, University of Toronto, Faculty of Medicine, Toronto, Canada.
 Dr. Marvin L. Graves, Prof. of Medicine, University of Texas, School of Medicine, Galveston, Texas.
 Sir Henry Gray, Royal Victoria Hospital, Montreal, Canada.
 Dr. Don M. Griswold, Prof. and Head of Department of Preventive Medicine and Hygiene, State-University of Iowa, Iowa City, Iowa.
 Dr. Garfield M. Hackler, Prof. of Surgery, Baylor University, School of Medicine, Dallas, Texas.
 Dr. John A. Hartwell, Associate Prof. of Surgery and Clinical Surgery, Cornell University, Medical College, New York, N. Y.
 Dr. Carl A. Hedblom, Prof. of Surgery, University of Wisconsin, School of Medicine, Madison, Wisconsin.
 Dr. William B. Hendry, Prof. of Obstetrics and Gynecology, University of Toronto, Faculty of Medicine, Toronto, Canada.
 Dr. Russell D. Herrold, McCormick Institute for Infectious Diseases, Chicago, Illinois.
 Dr. Julius H. Hess, Prof. of Pediatrics, University of Illinois, School of Medicine, Chicago, Illinois.
 Dr. Russell A. Hibbs, Prof. of Orthopedic Surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.
 Dr. Frederick J. Kalteyer, Associate Prof. of Medicine, Jefferson Medical College, Philadelphia, Pa.
 Dr. Allen B. Kanavel, Prof. of Surgery, Northwestern University, School of Medicine, Chicago, Illinois.
 Dr. Ralph A. Kinella, Associate Prof. of Medicine, University of St. Louis, School of Medicine, St. Louis, Missouri.
 Dr. Francis H. Lahey, Prof. of Clinical Surgery, Harvard University, School of Medicine, Boston, Mass.
 Dr. Dean Lewis, Prof. of Surgery, Rush Medical College, Chicago, Illinois.
 Dr. LeRoy Long, Dean and Prof. of Surgery, University of Oklahoma, School of Medicine, Oklahoma City, Okla.

House of Delegates Takes Decisive Steps for 1925: Dr. Wilson Cunningham Chosen President

Decisive action following careful deliberations by special reference committees characterized the meetings of the House of Delegates, August 19th to 22nd. Special reference committees were appointed to consider the reports of the Committee on Public Policy and Legislation, the Committee on Public Instruction, and the reports of the Delegates to the American Medical Association and of the Executive Secretary.

The first meeting of the House convened at the Northland Tuesday evening prior to the opening of the Scientific Sessions. At this meeting reports of officers and committees were read. A committee on nominations was elected consisting of Drs. H. O. Caswell, Fort Atkinson; J. S. Keech, Racine; Wayne Munn, Janesville; A. J. McDowell, Soldiers Grove; Otho A. Fiedler, Sheboygan; F. C. Huff, Sturgeon Bay; H. A. Jegi, Galesville; A. T. Nadeau Marinette; Joseph Smith, Wausau; F. E. Butler, Menomonie; J. M. Dodd, Ashland, and R. W. Blumenthal of Milwaukee.

Reference committees appointed were:

On Resolutions—Drs. H. A. Jegi, Galesville; Frank Thompson, Milwaukee, and K. W. Doege of Marshfield.

On Secretary's Report—Drs. Otho A. Fiedler, Sheboygan; F. A. Davis, Madison, and A. F. Schmeling of Columbus.

On Report Committee on Public Policy and Legislation—Drs. J. J. Seelman, Milwaukee; D. N. Walters, Fond du Lac, and M. J. Sandborn of Appleton.

These committees, with the exception of the Committee on Nominations, brought in their reports to the second meeting of the House Wednesday evening, August 20th. The Committee on Resolutions recommended that there be created a Section on Radiology and that the Milwaukee County Radiological Society, an organization already in existence, be empowered to organize the Section. The report was adopted. The Committee also recommended for adoption three resolutions passed at the June meeting of the American Medical Association. The first asks for a modification of the National Prohibition Act where that act violates the confidential relations that must be

OFFICERS ELECTED

President—

Dr. Wilson Cunningham, Platteville.

First Vice-President—

Dr. J. Gurney Taylor, Milwaukee.

Second Vice-President—

Dr. H. A. Jegi, Galesville.

Third Vice-President—

Dr. Howard Curl, Sheboygan.

Treasurer—

Dr. Rock Sleyster, Wauwatosa.

Councilor, 3rd District—

Dr. C. A. Harper, Madison.

Councilor, 4th District—

Dr. Wilson Cunningham, Platteville.

Delegates, A. M. A.—

Dr. Rock Sleyster, Wauwatosa, and

Dr. Horace M. Brown, Milwaukee.

Alternate Delegates—

Dr. W. E. Bannen, La Crosse, and

Dr. F. Gregory Connell, Oshkosh.

Note—The terms of all new officers begins Jan. 1 1925.

maintained between physician and patient. The second resolution defines what is ethical and what is unethical in institutional publicity. Both resolutions were adopted after thorough discussion. A third resolution asked that cosmetics and dyes containing dangerous and poisonous drugs be so labeled on the packages. This resolution was also adopted.

The Committee on Resolutions recommended several resolutions for passage. The first would combine the Committee on Health and Public Instruction and that on School Hygiene to be known as the Committee on Health and Public Instruction. The second resolution appropriated \$300 (later increased to \$500) to the Committee on Health and Public Instruction to carry out its 1925 program. A third resolution appropriated \$575 to the Committee on Cancer to carry out work outlined in its report. A fourth resolution provided that the future policy of the Society shall be to

expend its resources solely in the promotion of its own activities. The entire report was adopted after discussion.

The Committee on the Secretary's report recommended that the dues be maintained at \$9 for 1925; appropriated \$300 to the budget of the Secretary with instructions that he shall do all that is possible to aid constituent societies in securing adequate program material; recommended that no action be taken at present on the subject of automobile insurance, and finally, that all possible steps be taken to the end that each Councilor District shall have a District Society. The entire report was adopted.

The Reference Committee on the Report of the Committee on Public Policy and Legislation recommended that the entire report be adopted as presented to the House and that the Committee be authorized to employ such counsel as may be deemed necessary and wise. This report was also adopted.

MILWAUKEE NEXT YEAR

The 79th annual meeting of the Society will be held in Milwaukee during 1925. This follows the precedent of the Society in holding every other meeting in Milwaukee.

The last meeting of the House was held Thursday morning, August 21st at 8 A. M. Following election of officers the House passed a motion by Dr. Otho A. Fiedler, Sheboygan, empowering the President to appoint a committee of three to study the goiter problem in Wisconsin. The Committee was voted an appropriation of \$100 for its work and is to report its findings to the 1925 House of Delegates. The House then adjourned subject to the call of the President.

RESOLUTIONS ADOPTED

The Committee on Resolutions respectfully submit the following:

1. Believing that the rapidly growing specialty of radiology requires an organization of the physicians of the state who are devoting their time to X-ray work, and,

Recognizing the numerous technical, legal and ethical problems which do and will constantly arise,

The House of Delegates of the State Medical Society of Wisconsin hereby creates a Section to be known as a Section of Radiology.

Whereas, The Milwaukee County Radiological Society, an organization which is already in existence, has applied for membership and recognition in the State Medical Society:

Be it resolved: That they be empowered to organize the Section thus created.

ALCOHOL

2. As a resolution of like tenor has been presented to the American Medical Association, the following resolution is presented for your action.

Whereas, The use of alcohol in medicine by physicians is limited regardless of the condition of the patient by the National Prohibition Act, and,

Whereas, The confidential relation maintained between the physician and his patient are violated by the said National Prohibition Act, and,

Whereas, The interests of the patient and the success of the physician requires that such medical alcoholic liquor as is prescribed in the treatment of disease be of known purity and alcoholic content, and,

Whereas, This can be accomplished only by the marketing of bottled and bond alcohol for medicinal purposes in containers suitable for dispensing, unopened, by the pharmacists in such sizes as will meet the patient's needs, be it

Resolved, That the House of Delegates of the State Medical Society of Wisconsin expresses its disapproval of those portions of the National Prohibition Acts which interfere with the proper relation between the physician and his patients in prescribing alcohol medicinally.

Resolved, That the House of Delegates of the State Medical Society of Wisconsin request the Board of Trustees of the American Medical Association to use its best endeavor to have repealed such sections of the National Prohibition Acts as are in conflict with the above resolution and also to use their best endeavor to have the Commissioner of Internal Revenue, the Prohibition Commissioner and the Prohibition Director of the State of Wisconsin issue revised instructions on the use and the prescribing of alcoholic liquors for medicinal purposes by physicians.

COSMETICS AND DYES

3. In conformance with the request given in the report of delegates to the American Medical Association, which in turn was referred to this committee for consideration, we offer the following resolutions:

Whereas, There has lately been an enormous increase in the use of cosmetics, and,

Whereas, Many of the cosmetics contain chemicals irritating and even dangerous to the human organism, and,

Whereas, the dye paraphenyldiamin has so often resulted in serious and even dangerous irritation when employed in furs and on human hair: Be it

Resolved, That the State Medical Society of Wisconsin urgently recommend to the favorable attention of the American Medical Association that they foster legislation placing cosmetic preparations under the Food and Drugs Acts, and especially requiring the placing of the names of all poisonous ingredients on the labels.

That they foster legislation prohibiting the use of the most harmful types of ingredients in cosmetics, and that

they foster legislation to prohibit the use of paraphenylenediamin as a dye for hair and fur and that this society requests the Council on Legislation of the American Medical Association to urge laws with criminal liability to enforce a recognition of these demands.

ETHICS

4. Whereas, Many problems and questions of ethics and propriety concerning institutional publicity, are constantly arising, and

Whereas, There is no definite published guide available to the directors and officials of medical institutions, and,

Whereas, There is a widespread need for such guidance: Therefore be it

Resolved, By the Delegates of the State Medical Society of Wisconsin:

A. Publicity by clinics, hospitals, sanatoriums and other semipublic medical institutions as to quality of work done implies unusual and exceptional ability and efficiency on the part of their professional staffs and therefore is advertising of the medical men concerned.

This type of advertising distinctly savors of quackery and is unethical.

B. Publicity by any such institution stating or implying that by reason of its exceptionally fine equipment and material resources, it is able to, or does, give the public better medical service than similar institutions are able or willing to render, is advertising for the purposes of self-aggrandizement. Statements of this type, frequently exaggerated and misleading, are detrimental to the best interests of the public, of the institutions concerned, and of true medical progress. Publicity of this kind is unethical.

C. Hospitals, sanatoriums and other similar public medical institutions must raise funds both for capital investment and running expenses from an interested public. Furnishing to the public facts concerning such an institution, its work, its aims and its ideals, is legitimate and desirable. Such publicity deals with facts to which the public is entitled and in which it is interested, and is therefore ethical, provided it carefully refrains from any comparisons, either direct or implied:

Therefore be it further resolved, That the proper officers of the State Medical Society of Wisconsin be instructed to seek the approval of the American Hospital Association of these ethical standards.

JUST SIDELIGHTS

"I think I have only missed three state meetings in the last thirty years," said Dr. Windesheim of Kenosha, "and I can say that this is the most enjoyable meeting of them all. Not only that, but Mrs. Windesheim has an enthusiastic report for the splendid entertainment afforded the wives of the visiting members."

The capacity of the banquet halls was 375. An hour before the banquet all tickets were sold. And then the management seated a total of 406. It was the largest banquet ever held by the Society.

Thirty-four commercial and scientific exhibits completely filled the large exhibit hall. Standard booths, especially erected, with decorations in blue and gold made the exhibit hall so attractive that at no time dur-

ing the day were the booths without a stream of interested visitors.

Dr. A. O. Olmstead of Green Bay did not think there would be fifty members register from Milwaukee. He was so sure he bet a box of cigars and because he was going to win, he specified the number, kind, and quality. Fifty-one Milwaukeeans had registered by noon of the second day. The Secretary passed the cigars with the compliments of the Doctor.

An innovation in scientific exhibits that made a decided "hit" with the members was arranged by the Wisconsin Anti-Tuberculosis Association. All the Association's records were in the large booth and the staff physicians were kept busy explaining features of the work, talking over case histories, and pointing out features of the pathological specimens.

Taxi companies that may have anticipated a harvest in transporting members the two miles to Bay Beach had a sad disappointment. "Hop In, Doctor" cars were in evidence everywhere and the Brown-Kewaunee members may well be proud of the service rendered. Through the efforts of Dr. P. M. Clifford of Green Bay, not a car went out that did not first stop at the Hotels to fill up with members and guests.

Circle two steps to the tunes of yesterday met with enthusiastic approval at the dance following the banquet. The hall was crowded until "Home, Sweet Home" at one-fifteen.

Probably no feature of the meeting met with better response than the Wednesday evening smoker-discussion. Over 300 attended this innovation and what is more, stayed to the end. Bell boys were kept busy by the oft-repeated cry "more smokes, please."

The few tourists that were able to secure accommodations at the Northland kept the clerk busy asking what it was all about. But he was never so busy, so he says, as after the smoker had started to the tune of "Saw My Leg Off." We nominate Rock as Official Song Leader for all future meetings.

Secretaries of the county societies enjoyed the second of their get-together luncheons. It was the consensus of opinion that they should not only be continued but that time should be arranged for some discussions of their common problems.

Dr. J. C. Wright of Antigo, Secretary of the Langlade County Society, carried off the honors of the meeting. He sent in a full report for his 1924 membership in 1923 before the membership certificates were printed. Then he gave us his poem on the old Wisconsin River. We have been flooded with requests for a copy of the poem.

At the banquet in 1923 the speaker of the evening had to contend with a near-by bowling alley. This year there was no noise but a severe electrical storm forced the use of candles for short periods.

"If it isn't one thing it is something else," declared a member of the arrangements committee. "Wonder what it will be next year.?"

But even flickering lights could not spoil the effect.

It was a great meeting.

Green Bay Sessions Set New Record in Registration For Meetings Outside Milwaukee

With a registration of 381 members and 60 attendance at sessions held out of Milwaukee, guests a new high record was set at Green Bay for The complete registration list follows:

- Ackley, S. B., Oconomowoc.
 Andrews, C. H., Platteville.
 Andrews, Malcom P., Manitowoc.
 Armstrong, C. A., Prairie du Chien.
 Armstrong, C. E., Oconto.
 Arveson, Ray G., Frederic.
 Ashley, T. W., Kenosha.
 Astoll, Luella E., Marinette.
- Baird, J. C., Eau Claire.
 Bardeen, C. R., Madison.
 Bartran, Wm. H., Green Bay.
 Beech, Geo. D., Adams.
 Beier, Anton D., Milwaukee.
 Belleue, A. R., Iola.
 Bellin, Julius J., Green Bay.
 Bentley, John E., Portage.
 Berglund, Simou, Marinette.
 Bergwall, R. P., Milwaukee.
 Biekel, Edwin F., Oshkosh.
 Binnie, Helen A., Kenosha.
 Bird, M. D., Marinette.
 Bitter, R. H., Oshkosh.
 Blankinship, R. C., Madison.
 Blumenthal, R. W., Milwaukee.
 Rock, Otto B., Sheboygan.
 Boren, C. H., Marinette.
 Boren, J. W., Marinette.
 Boslough, A. W., Wausau.
 Boyd, C. D., Kaukauna.
 Boyd, G. T., Fond du Lac.
 Brockway, Frank, Oshkosh.
 Brook, J. J., Milwaukee.
 Brunchhorst, F. O., Hortonville.
 Buchanan, R. C., Green Bay.
 Buckley, W. E., Redgranite.
 Burdon, R. M., Green Bay.
 Butler, F. E., Menomonie.
- Cantwell, R. C., Shawano.
 Carter, Homer M., Madison.
 Carter, R. M., Green Bay.
 Cary, E. C., Reedsville.
 Caughy, C. R., Kenosha.
 Chandler, Fremont E., Waupaca.
 Chapman, Vernon A., Milwaukee.
 Charbonneau, A., Green Bay.
 Chloupek, C. J., Green Bay.
 Christensen, Emil, Two Rivers.
 Christofferson, A. L., Kenosha.
 Clifford, P. M., Green Bay.
 Collins, D. B., Madison.
 Combs, C. J., Oshkosh.
 Comee, William, Green Bay.
 Conley, J. M., Oshkosh.
 Connell, D. R., Beloit.
 Connell, F. Gregory, Oshkosh.
 Coon, H. M., Stevens Point.
 Coon, J. W., Stevens Point.
 Cooney, E. W., Appleton.
 Corry, Frank M., Menasha.
 Cowles, Robt. L., Green Bay.
 Crikelair, F. L., Green Bay.
 Cunningham, Wilson, Platteville.
 Curl, Howard, Sheboygan.
 Curtin, J. J., W. De Pere.
 Cushing-Lippitt, Eleanore, Milwaukee.
- Dana, A. C., Fond du Lac.
 Danforth, Q. H., Omro.
 Davis, C. H., Milwaukee.
 Davis, F. A., Madison.
 Dawson, D. L., Rice Lake.
 Dearholt, H. E., Milwaukee.
 DeCock, J. L., Green Bay.
 Dehne, W. O., Appleton.
 DelMarcelle, C. C., Neenah.
 Devine, H. A., Fond du Lac.
 Dietrich, L. S., Medford.
 Dishmaker, D., Kewaunee.
 Doctor, John, Racine.
 Doege, K. W., Marshfield.
 Doege, K. H., Marshfield.
 Dohearty, F. P., Appleton.
 Dohearty, W. H., Peshigo.
 Duer, G. R., Marinette.
 Dwight, C. G., Madison.
 Deicher, H. F., Plymouth.
- Eames, H. F., Egg Harbor.
 Edden, R. W., Janesville.
 Egan, W. J., Milwaukee.
 Evans, C. A., Milwaukee.
 Evans, Edward, La Crosse.
 Evans, J. S., Madison.
- Faber, C. A., Milwaukee.
 Fairfield, W. E., Green Bay.
 Farrell, A. M., Two Rivers.
 Farrell, T. E., Seneca.
 Fechter, F. J., Elkhart Lake.
 Felter, Edw., Plymouth.
 Festerling, E. G., Reedsville.
 Fiebigler, Geo. J., Waterloo.
 Fiedler, Otho A., Sheboygan.
 Flanagan, G. J., Kaukauna.
 Foat, J. S., Ripon.
 Foerster, H. R., Milwaukee.
 Foley, F. P., Dorchester.
 Forkin, Geo. E., Menasha.
 Foster, J. H. A., Cornell.
 Frey, F. H., Wausau.
 Froelich, J. A., Milwaukee.
 Fuller, M. H., Green Bay.
- Ganser, W. J., Madison.
 Gaunt, Peter F., Milwaukee.
 Gleason, C. M., Manitowoc.
 Goggins, G. F., Green Bay.
 Goggins, J. W., Chilton.
 Goggins, R. J., Oconto Falls.
 Gosin, F. J., Green Bay.
 Gramling, Elmer H., Milwaukee.
 Gramling, H. J., Milwaukee.
 Greenwood, S. D., Neenah.
 Gregory, D. H., W. De Pere.
 Gregory, Frank, Valders.
 Grinde, G. A., Cumberland.
 Griswold, C. M., Clintonville.
 Ground, Wm. E., Superior.
- Hall, S. S., Ripon.
 Halsey, R. C., Lake Geneva.
 Hammond, F. W., Manitowoc.
 Hansen, John, Glenbulah.
 Harper, C. A., Madison.
 Harrington, T. L., Milwaukee.
 Harris, F. M., Green Bay.
 Harvey, J. R., Footville.
 Haubrick, H. J., Oshkosh.
 Havens, Fred Z., Waupun.
 Hayes, D. J., Milwaukee.
 Hegner, G. T., Appleton.
 Hendrickson, H., Green Bay.
 Henes, Edwin, Jr., Milwaukee.
 Henke, W. A., La Crosse.
 Henken, J. F., Racine.
 Herner, W. L., Milwaukee.
 Herron, A. L., Milwaukee.
 Hewson, W. J., Niagara.
 Higgins, S. G., Milwaukee.
 Hildebrand, G. J., Sheboygan.
 Hirschboeck, J. G., Forestville.
 Hoffman, Geo. H., West Allis.
 Hogan, J. M., Oshkosh.
 Holz, A. P., Seymour.
 Hosmer, M. S., Ashland.
 Hougou, Ed., Wisconsin Rapids.
 Hoyer, A. A., Randolph.
 Huff, F. C., Sturgeon Bay.
 Hughes, J. R., Dodgeville.
 Hume, W., Milwaukee.
- Jackson, Arnold S., Madison.
 Jamieson, R. D., La Crosse.
 Jegl, H. A., Galesville.
 Jernain, L. F., Milwaukee.
 Johnston, H. E., Oshkosh.
 Johnston, W. M., Johnson Creek.
 Jones, Susan, Racine.
 Juckem, Geo. J., Howards Grove.
 Juncak, John A., Sheboygan.
- Kaumheimer, G. J., Milwaukee.
 Kearns, W. M., Milwaukee.
 Keech, J. S., Racine.
 Kelner, V. V., Maribel.
 Kelly, John, Cato.
- Kelly, W. W., Green Bay.
 Kemper, W. G., Manitowoc.
 Kersten, N. M., De Pere.
 Kinne, Ed., Elkhorn.
 Kispert, R. W., Green Bay.
 Knauf, Fred P., Kiel.
 Knauf, N. J., Chilton.
 Knox, E. S., Green Bay.
 Kmtson, Oscar, Osseo.
 Koch, V. W., Janesville.
 Kochler, J. P., Milwaukee.
 Krahn, Geo. W., Oconto Falls.
 Kristjanson, H. T., Milwaukee.
 Krohn, H. C., New Holstein.
- Laird, J. J., Black Creek.
 Lalor, J. C., Sauk City.
 Lawler, C. F., Hilbert.
 Leaper, W. E., Green Bay.
 Leasum, Charles, Sturgeon Bay.
 Lenfestey, J. P., De Pere.
 Leonard, C. W., Fond du Lac.
 Levitas, I. E., Green Bay.
 Lid, T. A., Marinette.
 Lillie, O. R., Milwaukee.
 Lindsay, W. T., Madison.
 Linger, Earl A., Oconto.
 Lippitt, S. H., Milwaukee.
 Lockhart, C. W., Mellen.
 Lockhart, J. W., Oshkosh.
 Loope, T. E., Iola.
 Looze, J. J., Wisconsin Rapids.
 Lotz, Oscar, Milwaukee.
 Lynch, H. M., Allenton.
- McCarey, A. J., Green Bay.
 McDowell, A. J., Soldiers Grove.
 McGrath, E. F., Appleton.
 McGrath, E., Baraboo.
 McMahon, F. B., Milwaukee.
 McMahon, J. P., Milwaukee.
 McNevens, E. S., Green Bay.
 McNicholas, L. T., Racine.
 MacCollum, C. L. R., Manitowoc.
 MacCormack, R. L., Whitehall.
 Mackoy, F. M., Milwaukee.
 MacLaren, J. B., Appleton.
 Maes, C. G., Kimberly.
 Majerus, P. J., Ft. Atkinson.
 Malloy, T. E., Random Lake.
 Marek, F. B., Racine.
 Marsh, H. E., Madison.
 Marshall, F. P., Fond du Lac.
 Marshall, V. F., Appleton.
 Mason, V. A., Marshfield.
 Maeremann, J. F., Monroe.
 May, J. V., Marinette.
 Meany, J. E., Manitowoc.
 Merrill, W. G., Wisconsin Rapids.
 Merten, A. N. E., Milwaukee.
 Muesel, Harry, Oshkosh.
 Miller, Thos., Oconomowoc.
 Mills, N. P., Appleton.
 Miloslavitch, E. L., Milwaukee.
 Minahan, J. J., Chilton.
 Minahan, J. R., Green Bay.
 Minahan, P. R., Green Bay.
 Minahan, R. E., Green Bay.
 Moore, W. N., Appleton.
 Moreaux, Felix, Luxemburgh.
 Morrison, Wm. W., Edgerton.
 Morter, R. E., Milwaukee.
 Morton, H. H., Cobb.
 Mowry, W. A., Madison.
 Mueller, W. E., Green Bay.
 Munn, W. A., Janesville.
- Nadeau, A. T., Marinette.
 Nadeau, E. G., Green Bay.
 Nanth, D. F., Kiel.
 Neff, E. E., Madison.
 Nicholas, F. C., Wausau.
 Nott, G. W., Racine.
 Nuzum, T. W., Janesville.
- O'Leary, T. J., Superior.
 O'Leary, T. J., East Troy.
 O'Neal, Orville, Ripon.

Oliver, T. J., Green Bay.
Olmsted, A. O., Green Bay.
Oft, H. A., Dale.
Ouellette, C. J., Oconto.
Ozanne, I. E., Neenah.
Ozanne, J. T., Oshkosh.

Patek, A. J., Milwaukee.
Perry, Gentz, Kenosha.
Pitz, M. N., Neenah.
Pleyte, A. A., Milwaukee.
Pope, F. W., Racine.
Powers, H. W., Milwaukee.
Powers, J. W., Milwaukee.
Proctor, T. C., Sturgeon Bay.
Purtell, E. J., Milwaukee.

Quigley, L. D., Green Bay.

Raasock, Halfdan, Nelsonville.
Radloff, A. C., Plymouth.
Ragan, W. F., Milwaukee.
Raymond, R. G., Brownsville.
Rector, A. E., Appleton.
Redelings, T. J., Marinette.
Rehorst, J. J., Fond du Lac.
Reineck, C., Appleton.
Reinert, E. N., Cleveland.
Rhode, H. P., Green Bay.
Rice, D. S., Stevens Point.
Richards, C. G., Kenosha.
Robb, J. J., Green Bay.
Robinson, H. A., Kenosha.
Robinson, J. F., Eau Claire.
Roger, R. B., Neenah.
Rose, Felix, Green Bay.
Ross, Geo. L., Kenosha.
Rothman, L., Wittenberg.
Rudolf, S. F., Green Bay.
Ryan, C. E., Appleton.
Ryan, D. J., Neenah.
Rydell, C. B., Superior.

Sandborn, M. J., Appleton.
Sargent, H. W., Milwaukee.
Sargent, J. C., Milwaukee.
Saunders, O. W., Green Bay.
Sayle, R. G., Milwaukee.
Schlossman, B., Washburn.
Schmelting, A. F., Columbus.
Schmidt, E. S., Green Bay.
Schmidt, J. A., Brillion.
Schneider, Fred, New London.
Seaman, G. E., Milwaukee.
Seelman, J. J., Milwaukee.
Senn, Geo., Green Bay.
Sexton, W. G., Marshfield.
Shaw, J. L., Manitowoc.
Shearer, H. A., Edgertou.
Shepherd, W. A., Seymour.
Sherman, Adin, Winnebago.
Siuron, L. J., Fond du Lac.
Simpson, J. E., Sturgeon Bay.
Sleyster, Rock, Wauwatosa.
Smith, E. V., Fond du Lac.
Smith, J. W., Milwaukee.
Smith, J. F., Wausau.
Smith, K. W., Madison.
Smith, R. C., Superior.

Smith, T. D., Neenah.
Snodgrass, T. J., Janesville.
Southwick, F. A., Stevens Point.
Spencer, L. E., Wausan.
Spiegelberg, E. H., Boseobel.
Stack, S. S., Milwaukee.
Stark, R. M., Milwaukee.
Stebbins, W. W., Madison.
Steffen, L. A., Antigo.
Stein, J. F., Oshkosh.
Stiennon, O. A., Green Bay.
Stoddard, C. H., Milwaukee.
Stoeltling, C. W., Oconto.
Stovall, W. D., Madison.
Stubenvoll, C. E., Shawano.
Szlapka, T. L., Milwaukee.

Tasche, J., Sheboygan.
Taylor, J. G., Milwaukee.
Taylor, L. L., Waupun.
Taylor, W. A., Portage.
Teitgen, Arthur, Manitowoc.
Terlinden, J. H., Bonduel.
Thackerey, R. C., Racine.
Tharinger, E. L., Milwaukee.
Thompson, F. A., Milwaukee.
Thompson, I. F., Milwaukee.
Thompson, R. D., Baraboo.
Toothaker, J. E., Algoma.
Trowbridge, P. T., Hayward.
Tucker, W. J., Ashland.
Twohlig, H. E., Fond du Lac.
Twohlig, D. J., Fond du Lac.

Van Schaick, R. E., Caroline.
Van Zanten, Wm., Sheboygan.

Walch, Frank C., Clintonville.
Waldschmidt, Wm. J., Fond du Lac.
Walters, D. N., Fond du Lac.
Weber, C. J., Sheboygan.
Weber, F. T., Arcadia.
Webster, F. E., Amherst.
Wenn, J. F., Milwaukee.
Wenstrand, D. E., Milwaukee.
Werner, H. C., Fond du Lac.
Wheeler, W. P., Oshkosh.
Wiesender, A. J., Berlin.
Wiley, F. S., Fond du Lac.
Wilkinson, M. R., Oconomowoc.
Williamson, G. H., Neenah.
Windeshelm, G., Kenosha.
Wochos, Frank J., Kewaunee.
Wochos, W. M., Kewaunee.
Wolter, H. A., Green Bay.
Wood, F. C., Waupaca.
Wright, J. C., Antigo.
Whalen, George, Milwaukee.

Yates, J. L., Milwaukee.

Zlatnik, A., Two Rivers.

Brett, B. C., Green Bay.
Kersten, A. M., De Pere.
Warfield, L. M., Ann Arbor, Mich.
Griswold, G. W., Alma Center.
Hough, A. G., Madison.

GUEST REGISTRATION

Green Bay, August, 1924.

Bachman, C. H., Milwaukee.
Bercey, J. E., Milwaukee.
Borsack, Karl K., Fond du Lac.
Boyden, W. L., Seymour.
Buerki, R. C., Madison.
Byrd, T. L., Milwaukee.
Cantwell, W. H., Shawauo.
Carroll, W. C., St. Paul, Minn.
Charlier, J. G., Milwaukee.
Crawford, A. S., Madison.
Czibucka, A. C., Plymouth.
Dockey, H. G., Kewaunee.
Doeg, Paul G., Marshfield.
Elliott, R. S., Gillett.
Ellwood, C. R., Menominee, Mich.
Engelbert, L. D., Green Bay.
Evans, J. A., La Cross.
Faulds, R. C., Abrams.
Fisher, David, National Home.
Fuerbringer, R. O., Saginaw, Mich.
Fuller, J. D., Brownsville.
Gibson, A. H., Milwaukee.
Gosin, D. P., Minneapolis, Minn.
Groos, Louis P., Escanaba, Mich.
Hamann, C. A., Cleveland, Ohio.
Hedblou, Carl A., Rochester, Minn.
Hernandez, J. A., Green Bay.
Hittner, V. J., Seymour.
Hornbogen, A. W., Marquette, Mich.
Howard, M. Q., Wauwatosa.
Hunt, E. M., Weyauwega.
Huut, Ida H., Weyauwega.
Jones, W. S., Menominee, Mich.
Kaye, J. T., Menominee, Mich.
Kerscher, E. J., Casco.
Lenke, C. D., Madison.
Levin, Alexander, Green Bay.
McComb, E. V., Menominee, Mich.
McLaughlin, Wm. J., Wrightstown.
McLeod, J. H., Washington, D. C.
MacDonald, W. H., Green Bay.
Mason, S. C., Menominee, Mich.
Muehlhauser, F. O., Greu Bay.
Murray, Frank, Trenton.
Panetti, Harold, Milwaukee.
Peckard, E. W., Pulaski.
Rauch, W. A., St. Nazianz.
Reese, G. J., Mendota.
Ries, E. O., Chicago, Ill.
Runnels, D. S., Appleton.
Sawbridge, E., Stephenson, Mich.
Schultz, H. A., Random Lake.
Szezenski, E. A., Milwaukee.
Sethney, Henry T., Menominee, Mich.
Sisk, J. N., Madison.
Smith, H. S., Ishpeming, Mich.
Stack, S. S., Milwaukee.
Vennema, H. A., Menominee, Mich.
Wagner, W. A., Oshkosh.
Walker, R. A., Menominee, Mich.
Walsh, J. J., Deenaba, Mich.
Walsh, W. P., Minneapolis, Minn.
West, W. K., Painsdale, Mich.
Witepalek, W. W., Algoma.

Tri-State Preliminary Program Is Announced

(Continued from page 205)

Dr. William E. Lower, Prof. of Urology, Western Reserve University, School of Medicine, Cleveland, Ohio.

Dr. Charles B. Lyman, Prof. of Clinical Surgery, University of Colorado, School of Medicine, Denver, Colorado.

Dr. N. J. MacLean, Associate Prof. of Surgery, University of Manitoba, Faculty of Medicine, Winnipeg, Canada.

Dr. Ralph H. Major, Prof. and Head of Department of Medicine, University of Kansas, School of Medicine, Rose-dale, Kansas.

Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minnesota.

Dr. William J. Mayo, Mayo Clinic, Rochester, Minnesota.

Dr. Edward Miloslavich, Director of Department of Pathology and Bacteriology, Marquette University, School of Medicine, Milwaukee, Wisconsin.

Dr. Roger S. Morris, Prof. of Medicine, University of Cincinnati, School of Medicine, Cincinnati, Ohio.

Dr. Bernard H. Nichols, Department of Roentgenology, Cleveland Clinic, Cleveland, Ohio.

Dr. Walter L. Niles, Dean and Prof. of Clinical Medicine, Cornell University, School of Medicine, New York, N. Y.

Dr. William F. Petersen, Associate Prof. of Pathology and Bacteriology, University of Illinois, School of Medicine, Chicago, Illinois.

Dr. Dallas B. Phemister, Assistant Prof. of Surgery, Rush Medical College, Chicago, Illinois.

Dr. Harry M. Richter, Prof. of Surgery, Northwestern University, School of Medicine, Chicago, Illinois.

Dr. Stanley P. Reimann, Director of Laboratories, Lankenau Hospital, Philadelphia, Pa.

Dr. David Riesman, Prof. of Clinical Medicine, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

Dr. Milton J. Rosenau, Prof. of Preventive Medicine and Hygiene, Harvard University, School of Medicine, Boston, Mass.

Dr. E. C. Rosenow, Mayo Clinic, Rochester, Minnesota.

Dr. G. W. Stevens, Milwaukee, Wisconsin.

Dr. Wallace Irving Terry, Prof. of Surgery, University of California, School of Medicine, San Francisco, California.

Dr. John H. J. Upham, Prof. and Head of Department of Medicine, University of Ohio, School of Medicine, Columbus, Ohio.

Dr. George Gray Ward, Jr., Prof. of Obstetrics and Gynecology, Cornell University, School of Medicine, New York, N. Y.

Dr. Louis M. Warfield, Prof. of Internal Medicine, University of Michigan, School of Medicine, Ann Arbor, Michigan.

Dr. George Weaver, McCormick Institute for Infectious Diseases, Chicago, Illinois.

Dr. John L. Yates, Milwaukee, Wisconsin.

State of Wisconsin General Hospital Opens Next Month; General Policies Are Outlined

By C. R. BARDEEN, M.D.,

DEAN OF MEDICAL SCHOOL, UNIVERSITY OF
WISCONSIN

The new university hospital, officially designated the State of Wisconsin General Hospital, for which provision was made at the special session of the legislature in 1920, is now being opened for the care of patients.

The act authorizing the establishment of the hospital, chapter 30, special session 1920, section 36.31, provided that:

"There shall be established in connection with the Medical School of the University of Wisconsin at Madison a state hospital to be known as the State of Wisconsin General Hospital.

(1) "Said hospital shall be under the control and supervision of the Board of Regents of the university.

(2) "The university infirmary and the Bradley Memorial hospital heretofore established shall be a part of said hospital.

(3) "Said hospital shall be utilized for such instruction of medical students, physicians, and nurses and for such scientific research as will promote the welfare of the patients committed to its care and assist the application of science to the alleviation of human suffering.

(4) "Said hospital shall be more particularly designed for the care of persons afflicted with a malady, deformity, or ailment of a nature which can probably be remedied by hospital service and treatment and who would be unable otherwise to secure such care."

The purposes of the hospital as thus defined are to supplement the resources of the state for giving hospital care to those who need such care and to promote medical education and scientific research and thus to aid in the general advance of medicine as an aid to social welfare.

The main responsibility for the care of the sick falls upon the private practitioner. In the long run the sick will receive the best care under conditions which encourage private practice of a high type. Among these conditions are facilities for undergraduate medical instruction and for graduate study and facilities for hospital care and for special diagnosis and treatment. Adequate facilities along these lines require liberal public

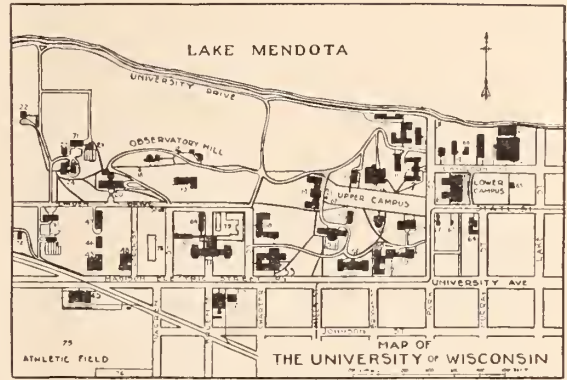


Fig. 1. Map of part of campus, University of Wisconsin, showing location of hospital buildings and proposed site for medical laboratory building. 69. Bradley Memorial Hospital. 70. Student Infirmary. 77. State General Hospital under construction. 78. Site of nurses' home. 79. Site of Medical Laboratory Building. 53. Chemistry Building. 54. Biology Building. 68. Physics Building.

support. On the other hand this public support, whether through endowment or taxation, should tend to supplement, not supplant, private practice. In formulating plans for the building and organization of the new hospital and the further development of the medical school at the state university this thought has been kept constantly in mind.

LOCATION

The board of regents selected for the site of the new hospital and the further development of the medical school the area shown in the map, Fig. 1. This site lies midway between the collegiate campus and the grounds of the College of Agriculture at the left.

The departments of physics, chemistry, biology, and economics of the collegiate department and those of chemistry and home economics of the College of Agriculture, the university extension building, the university power plant and shops are in close proximity to this site. We are thus assured of the most advantageous physical relationships between other university departments and the medical school and hospitals.

At present there are located on this site a student infirmary, with a capacity of 60 beds, the Bradley Memorial Hospital designed for clinical research and to be used for pediatrics, with a capacity of 60 beds, and the State General Hospital with a capacity of over 300 beds. A nurses'

home is to be erected in the immediate future and plans have been drawn for a medical school building to be connected with the hospital.

THE NEW HOSPITAL BUILDING

Figure 2 is a photograph of the State of Wisconsin General Hospital. There are six stories, a basement, and a roof garden.

The general design of the building is in the form of a T, the horizontal wings of which face the south and the vertical wing of which points toward the north. The former are designed primarily for the immediate care of patients while the latter is essentially a service wing with kitchen and dining rooms in the lower stories, laboratories and internes' quarters intermediate, and an operating suite on the top floor. The central portion where the wings meet contains waiting rooms, administrative offices, and some laboratory and treatment rooms. In this portion of the building, facing the south, there is a large open loggia which may be seen in the photograph and which is designed in addition to the facilities on the roof, for open air and sunlight treatment of patients.

The basement contains in addition to storage facilities, a hydro-therapeutic department and an electro-cardiographic laboratory from which wires lead to the various floors of the hospital.

The first floor contains the out-patient department. In the central portion there is the main lobby of the hospital with information, record desks, and offices. In each wing are examining rooms with various special facilities for diagnosis and treatment. There is a special group of rooms for receiving ambulance cases and for emergency surgical treatment.

The main wings of the second floor are designed for the care of neuropsychopathic patients. It is believed that at present there is a great lack of proper facilities in the state for the care of patients of this type of limited means and that much good may be done patients not sufficiently advanced to require commitment to a public institution for the care of the insane, but requiring expert care to prevent the development of an advanced neurosis.

On the third floor, one of the main wings is designed for the care of obstetrical cases and contains a delivery room and other accessory facilities. The other wing contains rooms for patients who can afford to pay for professional

medical services and for whom a very limited provision has been made in this hospital.

The main wings on the fourth floor are designed for patients requiring general medical care. In each wing there are two twelve-bed wards and eight two-bed wards.

The main wings of the fifth floor are designed primarily for special surgical cases, eye, ear, nose, and throat in one wing and orthopedics in the other. In the central portion there are diagnostic and treatment rooms.

The main wings of the sixth floor are designed primarily for general surgery with an arrangement of wards, as is also the case on the fifth floor, similar to that on the fourth floor. In the central portion there are facilities for electro and mechano therapy conference rooms and laboratories.

The roof is furnished with a diet kitchen, duty rooms, toilets, and other facilities for the care of patients taking open air treatment. There is an enclosed space for care of patients during cold or very stormy weather.

The building is of fireproof construction. As outlined above it is designed essentially on a unit plan there being a unit in each main wing on each floor above the first. Each unit is designed to care for from thirty to forty patients under the supervision of a graduate nurse whose station is centrally located. Each unit is provided with a diet kitchen, a duty room, and with two toilets, thus making it possible to care for patients of both sexes. Each unit is especially equipped to care for patients suffering from conditions for the treatment of which the unit is designed. There are chemical, bacteriological, clinical, and surgical pathological laboratories designed both for routine diagnosis and for teaching and clinical research. Elaborate provision is made for various forms of special therapy such as hydro-therapy, electro-therapy, mechano-therapy, and helio-therapy. The resources of the state for the care of the sick and the advancement of medical knowledge have received a most important addition through the erection and equipment of this building.

USES OF THE HOSPITAL

The primary objects of the new hospital are to furnish facilities for the care of patients who now lack adequate provision, and to furnish facilities for teaching and the advancement of medical knowledge.



STATE OF WISCONSIN GENERAL HOSPITAL,
UNIVERSITY OF WISCONSIN, MADISON

Chapter 142 of the Wisconsin Statutes of 1923 provides:

142.01. Public patients. A resident of Wisconsin who is afflicted with a deformity or ailment which can probably be remedied or advantageously treated, if he or the person liable for his support is financially unable to provide proper treatment.

142.02. Application. When the case of such person shall come to the notice of a sheriff, county supervisor, town clerk, health officer, health nurse, poor commissioner, policeman, physician, or surgeon, or any public official, he shall and any teacher, priest or minister may, file with the county judge an application for his treatment at such hospital.

142.03. Investigation. (1) The application shall be in such form as the county judge shall direct, and shall contain a full statement of the financial situation of the person and a general statement of his physical condition, and shall be verified. The county judge shall make investigation and the supervisor for the town, village or ward of the residence of the person shall supply to the court, on request all material information within his knowledge.

(2) The judge if satisfied that the required facts exist, shall appoint a physician of said county personally to examine the person. The physician shall make a verified report in writing, within such time as the court shall direct, setting forth the nature and history of the case, and such other information as will be likely to aid in its treatment and giving his opinion whether the condition of the person can probably be remedied, or should be treated, at a hospital, and any information within the

knowledge of the physician relative to his financial situation. The physician shall be paid by the county, five dollars, and actual and necessary expenses.

(3) The faculty of the medical school of the university shall prepare blanks for examining physicians. Such blanks shall be printed by the university, and mailed to each county court upon request. Physicians shall report in duplicate on said blanks, and if the application is granted one copy shall be sent to the hospital.

142.04. Findings and order. If the court shall be satisfied that the required facts exist and that the person should be treated at the Wisconsin general hospital, he shall so find and enter an order granting the application. If the court is not so satisfied, he may make further investigation. If the court does not find the required facts, he shall enter an order denying the application. Upon granting the application, he shall ascertain from the superintendent of the hospital whether the person can be received as a patient, and if he can the court shall certify his order to the hospital and to the county clerk.

142.05. Conveyance to hospital. If the patient is unable to travel alone, the court may appoint a suitable person to take him to said hospital, and such person shall receive actual and necessary expenses, and, if not a salaried officer, a per diem of three dollars per day going and returning; and the same shall be paid by the county.

142.06. Discharge of patients. When the superintendent of the hospital is of the opinion that a county patient is cured, or no longer needs treatment or cannot benefit thereby, he shall discharge the patient. If the patient is unable to travel alone, the superintendent

shall notify the county judge who shall appoint some suitable person to bring the patient back. Such person shall receive expenses and compensation as provided in section 142.05.

142.07. Hospital charges. (1) The Wisconsin general hospital shall treat patients so admitted at rates based on actual cost as determined by the board of regents of the university. Payments made by such patients shall be credited to their account. Patients may be admitted without certificate, but the cost of their care shall not be a point charge against the state and county, except when such patients are admitted in an emergency pending action of the county court. If the court grants the application the charges against state and county shall date from his admission.

(2) No compensation shall be charged against or received from any patient by any officer or person employed by the hospital other than the compensation provided by the board of regents of the university.

142.08. Reports; payment of charges. The net cost of caring for a certified patient shall be paid one-half by the state and one-half by the county of his residence.

(1) The board of regents of the university shall file a verified monthly report with the secretary of state, containing an itemized statement of the account against each such patient naming the county. The secretary of state shall audit the same and issue a warrant against the state treasurer for the proper amount. The state treasurer shall thereupon transfer such amount from the general fund to the appropriation provided in subsection (7) of section 20.40.

(2) On or before October first in each year the board of regents shall file with the secretary of state a statement setting forth in detail the account of each certified patient during the fiscal year ended on June thirtieth next preceding.

(3) The secretary of state shall thereupon certify to each county one-half the amount paid by the state for each such patient from that county, and one-half the total amount so paid which last amount shall be certified, levied and collected with the general state taxes.

Section 46.115. The board of control of the state of Wisconsin shall make application to the board of regents of the university, for the admission to the State of Wisconsin General Hospital of any inmate of any state institution under the board of control, or of any person committed to or applying for admission thereto, who is afflicted with any disease, malady, deformity or ailment, which can probably be remedied, or which can be advantageously treated by proper medical or surgical care at the State of Wisconsin General Hospital, in all cases where such person cannot receive proper care at the institution to which he has been committed or to which he has made application for admission. Said application shall be accompanied by the report of the physician of said institution or by a physician appointed by the board of control, in the same form as reports of other physicians for admission to patients of said hospital. The board of control shall pay to the regents of the university for the treatment of such patients at the

same rates charged the county for county patients, and the expense of such treatment and of transporting such patient to and from the hospital shall be paid out of the appropriation for operation of the institution from which said patient is sent. Said board may, when necessary, send an attendant with such patient and pay his traveling expenses in like manner.

ACT IS MANDATORY

This act, which passed both houses of the legislature with a very large majority in its favor, has been cited at length to show the earnest desire of the people of the state to furnish facilities for medical care to those without adequate resources for such care. The act makes it mandatory for public officials and physicians and advisable on the part of others especially interested in the public welfare to report patients who appear to need the facilities of the Wisconsin General Hospital and makes ample provision for the transportation and care at joint county and state expense of patients who, upon further investigation, are found to need such aid and are likely to benefit from the treatment afforded at the hospital. The need of the active co-operation of the medical profession in the execution of the act is recognized by the requirements that the county judge to whom a patient has been recommended for hospital care at joint state and county expense, shall appoint a physician of his county to examine the patient and report as to whether or not the patient needs the care suggested. For compensation for such examination and report the act provides a fee of five dollars.

In addition to caring for patients whose financial status is such that public aid is required to pay for the cost of hospital care, it is believed that the new hospital can do much good in furnishing special diagnostic and therapeutic facilities for patients who can raise sufficient funds to pay for the per diem cost of hospital care and for the overhead cost of special diagnostic and therapeutic facilities but cannot in addition afford fees for the professional services of experts. Such patients may be sent directly to the hospital by the family physician with a note explaining the circumstances, pay the charges, which in case of public patients are assessed against the state and county, and on discharge be referred back again to the family physician with a report as to the results of the diagnostic or therapeutic procedures requested. In such instances no fees for the professional services of specialists are charged. The

members of the professional staff of the hospital are compensated for teaching and research and get their reward in instances of this kind from the opportunity offered of a broader field for clinical study. The family physician profits from the expert aid received in the care of his patients and from the fact that the patient is not so impoverished as to be unable to compensate his physician for his invaluable services.

On the other hand, if a patient can afford to pay the fees of a specialist in addition to the fees of his family physician and the charges for nursing and hospital care, he should not be sent to the State General Hospital as a clinical patient; but, if in need of the services of a specialist, should be referred as a private patient directly to a specialist or to a group engaged in private practice. If a member of the staff of the State General Hospital be selected as the specialist to whom the patient is referred, the patient should be directed to the private outside office of this specialist and not to him in his official capacity as a member of the hospital staff nor to the State General Hospital.

LABORATORIES FOR SPECIAL WORK

While private patients should not be referred to the hospital for professional medical consultation and treatment they may be sent there by any physician for special laboratory work of a nature not otherwise available to the physician. In such cases a fee to cover the cost of such work is paid by the patient to the hospital and a report of findings is sent by the hospital to the physician. The purpose of this procedure is to place at the disposal of physicians special laboratory procedures which can be performed by technicians and which might otherwise be unavailable. The responsibility for the interpretation of the reports of the technicians and their application for the welfare of the patients rests in these cases upon the physician referring the patient. The hospital assumes no responsibility for professional medical services rendered such patients. As a rule expert professional advice is desirable in connection with laboratory procedures and private patients should be referred to specialists engaged in private practice, and not to the University Hospital.

THE HOSPITAL STAFF

The hospital staff has been selected from the point of view of special training in the various branches of medicine and of experience in medi-

cal teaching and research. It is comprised partly of full service and partly of part service men. The full service men are men who devote their whole energies to clinical work in the hospital, teaching and research and receive academic salaries customarily given members of the university faculty of corresponding experience, ability, and reputation. The young men of this group engage in no private practice. The more experienced men whose services as consultants or specialists may be of value to those engaged in private practice are permitted to maintain offices outside of the hospital for private consultation work at hours arranged so as not to interfere with the major work of care of patients in the hospital, teaching, and research. Those thus engaged in private consultation work are permitted the use of beds in the hospital for private patients but the number of such beds is very limited.

Members of the staff of the hospital on a part time basis receive small salaries and do not have the privilege of use of beds in the Wisconsin General Hospital for care of private patients.

UNDERGRADUATE TEACHING

It is not proposed to begin the third year of the medical course before the academic year 1925-26 or the fourth year before the academic year 1926-27. While as yet not decided, it is probable that a fifth or intern year will be required for the M.D. degree. During the coming year plans for clinical teaching will be matured.

In developing undergraduate clinical teaching the present plans are to make use of two groups of teachers, intra-mural and extra-mural. The intra-mural teachers will be composed of the staff of the Wisconsin General Hospital and will do their teaching in this hospital. The extra-mural teachers will be selected from the staffs of hospitals affiliated with the university for the purpose of promoting training in the art and science of medicine. While at first such hospitals may be restricted to state institutions and to hospitals in or near the city of Madison, it is hoped eventually to enter into relations of this character with hospitals in other parts of the state especially for the advanced training of the latter part of the fourth and fifth or intern year. It is desired to re-introduce into medical education the advantages of the old apprenticeship system under conditions of modern medical practice and this can be done only when a large number of

men interested in medical progress take part, each in the training of a small group of students. Further announcement of plans for clinical teaching will be made after these plans have been fully matured. It is hoped to make acquaintance with hygiene and public health measures an important feature of the training. In this we shall have the co-operation of the state Board of Health.

GRADUATE TRAINING

Graduate teaching may here be defined as advanced residence instruction in the science and art of medicine leading to certificates of special proficiency or to the higher academic degrees. Work of this kind is already offered at the university in the pre-clinical branches and will be developed in the clinical branches. Students taking special advanced work in a clinical branch may be residents in the Wisconsin General Hospital in order to acquire practical experience and skill. Announcement of the details of instruction will be made later.

POST-GRADUATE INSTRUCTION

Post-graduate instruction is here defined as instruction of a more or less informal nature intended to give the practitioner opportunity to become acquainted with recent advances in the science and art of medicine. For some years the state university, through the extension division, has offered extension courses designed for this purpose and has established a loan collection of reprints. The university library has likewise been made available to the physicians of the state. The extension work will be continued if there is a demand for it and will be supplemented by short practical courses at the Wisconsin General Hospital. Last year a course on the use of insulin was given at the Bradley Memorial Hospital and the faculty of the medical school co-operated with the State Board of Control in offering a special course of instruction to physicians connected with the various state institutions.

Aside from offering courses of a more or less formal character it is hoped that the university, through the Wisconsin General Hospital, may prove of value to physicians who desire to visit it for the purpose of becoming acquainted with the methods in use there. Physicians of the state will be especially welcome there at any time.

RESEARCH

The advance of medical knowledge is a fundamental duty of a university hospital. The staff

should be productive and help to maintain a progressive attitude on the part of the medical profession of the state. The resources of the university and the State General Hospital will be placed so far as practical at the disposal of any physician desiring to further medical knowledge.

SCHOOL OF NURSING

A school of nursing has been established at the university in connection with the State of Wisconsin General Hospital. Two courses are offered, a three-year course leading to a certificate of Graduate Nurse and a five-year course leading to a B.S. degree and a certificate. Detailed information concerning these courses may be obtained from Miss Helen I. Denne, director of the training school.

SUMMARY

The new State of Wisconsin General Hospital is an important addition to the medical resources of the state. Its location at the state university in close association not only with pre-clinical medical departments but also with the university departments of physics, chemistry, and biology as pure sciences and as applied to agriculture and to public health, gives it unusual advantages as a center for medical teaching and progress. To make full use of this opportunity there should be close co-operation between the medical profession of the state and the staff of the hospital in the selection of patients suitable for treatment there and in their care while at the hospital and subsequently; there should be close co-operation between men experienced in private practice and the intra-mural faculty of the medical school in fitting young men for the responsibilities of treating the sick, and close co-operation with public health officers in promoting education in preventive medicine; there should be above all the feeling of sharing a common ideal, the promotion of human welfare, through the promotion of medical science and art. It will take time to learn in just what ways the university, through the new hospital, can do the most to promote medical practice and progress. Through the active co-operation of the medical profession these ways may, with patience, gradually be worked out.

Tomahawk Lake Camp Only One of its Kind in United States; Capacity to be Enlarged This Fall

BY MRS. LOUISE F. BRAND,

WISCONSIN ANTI-TUBERCULOSIS ASSOCIATION.

Ever been to Tomahawk Lake Camp? No? Then you've missed something. In fact, you've missed a lot. Ask anyone who has ever dropped in for an hour or two while motoring through that section of the country or while vacationing at one of the many summer camps or private cottages just across the water or through the woods from the state camp. If your questions don't start a wave of enthusiasm over the scenic beauty of the camp, over the value of the practical work that is being done there, over the effectiveness with which it is putting the final finishing touch on the tuberculosis cure, then there's something wrong with the questioner.

Of course, you can't stop at Tomahawk Lake Camp for any length of time. There isn't room. There isn't room for the convalescent sanatorium graduates who ought to be there and who want to be there. So you can't put up with the Reichs, much as you will doubtless want to once you have had a good glimpse of how they run the State Camp, but you can find plenty of places in the near vicinity where you can linger unless they, too, happen to be overcrowded, as they are mighty apt to be during the summer season.

For that is one of the charms of Tomahawk Lake Camp. The forest around the camp is virgin forest. It is in the very heart of one of the most beautiful and popular summer resort regions of the state. Nearby lakes are full of fish. The woods are full of game. The camp is ideally located for providing healthful, stimulating recreation.

But it isn't all play for the residents of Tomahawk Lake Camp, the primary purpose of which is fitting them to go back into industry by supplying a graded system of outdoor work for the building up of physical strength. Tomahawk Lake Camp is a practical experiment in the conservation of human life, an experiment that passed beyond the experimental stage years ago. It is one of Wisconsin's unique institutions, the only one of its kind in the country.

It is an institution literally carved out of the wilderness. Into its buildings have gone more than brick and mortar, timber and nails, for much



PATIENTS' COTTAGE, TOMAHAWK LAKE CAMP.

of the work that has made the camp what it is today has been done by the patients themselves. It has been part of the training by which flabby muscles have been made firm and lungs and hearts, weakened by illness and months of enforced idleness, have been strengthened, but it has also been a labor of love on the part of the men.

Roads have been cut through the heart of the forest, bridges built over streams finding their way to a nearby lake, acres of land cleared and transformed into garden and farm, and more than one building has been added to the original administration building, twenty-bed patients' cottage, power house, and barns with which the institution started its work in August, 1915. But with all the work that has been done by the men in the building of poultry houses, root cellars, hog pens, machinery sheds, and additions to the barn, the normal capacity of the institution has not been increased although it has been stretched from twenty to twenty-four. This in spite of the fact that the 1916-17 legislature passed an appropriation for a new patients' cottage and refectory, increasing the capacity of the camp to sixty patients, and that succeeding legislatures have made additional appropriations for other camp needs. Cessation of building activities during the war, followed by increased cost of construction, is the cause for the fact that up to the present year no action has been taken to start building. The Board of Control expects that work on the new buildings will be begun this fall.

At the entrance of the road leading into the camp grounds stands a sign which reads, "Toma-

(Continued on page XXIV)

THE JOURNAL BOOK SHELF

The Circulatory Disturbances of the Extremities. By Leo Buerger. Published by W. B. Saunders & Co., Philadelphia.

Modern Urology. By Richard Cabot, M.D., Second Edition, Lea and Febiger, Philadelphia. Two volumes, \$18.00.

Obstetrical Nursing. By Charles Sumner Bacon, Ph.D., M.D. Published by Lea and Febiger, Philadelphia and New York. 1924.

Cosmetic Surgery—The Correction of Featural Imperfections. By Charles Conrad Miller, M.D. F. A. Davis Co., Philadelphia, 1924. Cloth, 263 pages, 140 illustrations. Price, \$4.00.

Management of Diabetes. By George A. Harrop, Jr., M.D. 176 pages, cloth. Paul B. Hoeber, Inc., New York, 1924.

Differential Diagnosis. Presented through an Analysis of 317 cases. By Richard C. Cabot, M.D., Professor of Medicine and Professor of Social Ethics at Harvard University, Volume 2, Third Edition, Revised. Octavo of 709 pages, 254 illustrations. W. B. Saunders Company, Philadelphia and London, 1924. Cloth, \$9.00 net.

Pediatrics. Edited by Isaac A. Abt. Vol. 3. W. B. Saunders Co. \$10.00 per volume.

Pathological Technique. Mallory and Wright. Eighth Edition. Revised and enlarged. W. B. Saunders Co., Philadelphia, 1924.

A Critical Examination of Psycho-Analysis. By A. Wohlgemuth, D. Sc. (London). New York: The Macmillan Company, 1923.

The Treatment of the Common Disorders of Digestion. By John L. Kantor, Ph.D., M.D. Illustrated. C. V. Mosby Company, St. Louis, 1924. Price, \$4.75.

The Conquest of Worry. By Orison Sweet Marden. New York: The Thomas Y. Crowell Company, 1924.

An Intimate Portrait of R. L. S. By his stepson, Lloyd Osborne. New York: Charles Scribner's Sons, 1924. \$1.50.

The Soul of Samuel Pepys. By Gamaliel Bradford. Boston and New York: Houghton Mifflin Co., 1924. \$3.50.

Now That I'm Fifty. By Albert Payson Terhune. New York: Geo. H. Doran Company, 1924.

The Mind in Action. By George H. Green. New York: G. P. Putnam's Sons, 1924.

Mobilizing the Mid-Brain. By Frederick Pierce. New York: E. P. Dutton & Company, 1924.

Physical Exercises for Daily Use. By C. Ward Crampton, M.D.

Insanity and the Criminal. By John C. Goodwin. New York: Geo. H. Doran Company, 1924.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1923. Cloth. Price, postpaid, \$1.00. Pp. 72. Chicago: American Medical Association, 1923.

Peculiarities of Behavior. By Wilhelm Steel. Authorized English version by James S. Van Teslaar. In Two Volumes. Boni & Liveright, New York, 1924. Price, \$8.50.

The Primitive Archaic Forms of Inner Experiences and Thought in Schizophrenics. By Alfred Storch of Tübingen. Translated by Clara Willard, Librarian, St. Elizabeth's Hospital, Washington, D. C. Nervous and Mental Disease Publishing Company, Washington, D. C.

A Clinical Guide to Bedside Examination. Rebman Company, New York.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

Diabetes. By Philip Horowitz, M. D., 219 pages, cloth. Paul B. Hoeber, Inc., New York, 1924. 34 illustrations.

This is the second edition, largely rewritten. This book is evidently designed to be a handbook for the management of all the types and complications of diabetes. It is not complete enough to be a reference work on the subject, nor is it brief and orderly enough to serve for ready reference. The whole volume is cluttered up with numerous case histories, given with all the details. The book has been prepared to appear intensely practical by its numerous diet charts and prescriptions, but it is difficult to read. The only scheme of organization is the classification of diabetes in four grades of severity, with no definite means of grouping the cases into the proper classification. The author evidently fails to see the diabetic as a human with one weakness, namely, a reduced supply of insulin. Whether this concept is true or not it has served to rationalize the treatment of diabetes and make possible the proper conduct of diabetic cases by general practitioners.

The one contribution the author makes is his insistence on the benefits of treatment with *B. bulgaricus* or *acidophilus* during the "irritative" stages of early diabetes. He believes that all diabetes is toxic in origin, and includes intestinal auto-intoxication as a common causative factor. The reader is led to expect much original work in insulin, but only commonplaces are given.

The author's methods require the use of the blood sugar and alkali reserve determinations. Many patent food preparations are used in the diet schemes. It is difficult to follow the logic of the diet, and still more difficult to master the details of the diet prescriptions.

E. L. S.

Physicians and Surgeons

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Dislocations and Joint Fractures. By Frederic J. Cotton, A. M., M. D., F. A. C. S. (Second Edition, Revised.) W. B. Saunders Co., 1924.

This is truly a remarkable book! Its 726 pages are filled with descriptions, suggestions and warnings in a most delightful style. The author is an artist of no mean ability and the pages are embellished with a great number of sketches which serve admirably to elucidate a profusion of excellent X-ray pictures and photographs of myraids of bone and joint injuries. In the 700 pages there are 1393 illustrations. Beyond any question of doubt it is the foremost book on this subject in any language.

A. G. S.

To Lectures on Gastric and Duodenal Ulcer, A Record of Ten Years' Experience. By Sir Berkley Moynton Leeds. John Wright and Sons, Ltd., Bristol. Wm. Wood & Co., New York.

This is a neat and convenient size, paper bound volume of 48 pages. The first lecture, "On Some Problems of Gastric and Duodenal Ulcer," was delivered before the Hunterian Society of London, January 29th, 1924. The second lecture "On the Treatment of Duodenal Ulcer" was read before the Harveian Society of London on March 22, 1923.

These lectures are well prepared and entertainingly written. Seven hundred and eighteen operative cases are reviewed. Some information of statistical value is recorded—History, Gastric Chemistry, X-Ray Examination and the relative value of Medical and Surgical Treatment is discussed. In a few instances, observations made border on the ridiculous and are more amusing than enlightening to the thinking physician.

Physicians should read these lectures, but do so with the full and clear understanding that they are written by a surgeon, and a surgeon who sees only through surgical eyes.

R. C. B.

The Medical Clinics of North America. (Issued serially, one number every other month.) Volume XIII, Number 1, July, 1924. By Internists of New York City. Octavo of 426 pages with 106 illustrations. Per Clinic year (July, 1924, to May, 1925). Paper, \$12.00 net. Cloth, \$16.00 net. Philadelphia and London. W. B. Saunders Company.

One expects in these Clinics to find much of absorbing interest. This particular volume is an exception.

A large number of very important conditions—most of them not uncomely met with in general practice—are ably discussed.

W. A. M.

International Clinics, Volume II. Thirty-fourth Series, 1924. J. B. Lippencott Company, Philadelphia and London.

A Symposium on Physiotherapy describing several new procedures of interest to the profession at large with an excellent article on treatment with sodium is one of the outstanding features of this number.

As usual the various papers on Diagnosis and Treatment, Neurology, Pediatrics, Surgery, Pathology and Industrial Medicine are contributed by leaders in the respective fields.

The illustrations, including colored plates, figure

roentgenograms and electrocardiograms are excellent.

W. A. M.

Eat Your Way to Health. By Robert Hugh Rose, A. B., M. D., 12 mo. cloth. 246 pages, \$2.00 net. Funk & Wagnalls Company, Publishers, New York.

This is an excellent book for the layman as well as the general practitioner.

It is a generally recognized fact that excess weight is often dangerous, also that weight reduction is often not without harm unless thoroughly supervised. Many other conditions beside obesity demand specified diets rather than general instructions as to what should be eaten.

Dr. Rose has previously made many valuable contributions to the literature on diet and is eminently fitted by long experience to offer this volume. —W. A. M.

Manual of Gynecology and Pelvic Surgery for Students and Practitioners. By Roland S. Sheel, Second Edition. Published by P. Blakiston's Son and Company, 1012 Walnut Street, Philadelphia, Pennsylvania.

This is a brief outline of gynecology and pelvic surgery. It can hardly be compared to the larger and more exhaustive works in gynecology.

Sections on anatomy are good and concise and treatment is taken up well but it is somewhat lacking in the gross and microscopic pathology of the various diseases.

—C. P. B.

Mind and Medicine. By Thomas W. Salmon, M.D., Professor of Psychiatry in Columbia University. From the Columbia University Press, New York, 1924.

This booklet, attractively bound and beautifully printed, contains the address made by Dr. Salmon at the opening session of the College of Physicians and Surgeons, Columbia University, September 26, 1923.

It is a plea for a close relationship between the psychiatrist and other men of the medical profession in the treatment of mental disorders.

In concluding this brilliant lecture, Dr. Salmon quotes Dr. Ray Lyman Wilbur, who said in an address made while President of the American Medical Association:

"The human mind, the human will and human personality will be as important for the medical student of today when he comes to full practice as typhoid fever, small-pox and cholera have been for the physicians in the past. Moral and spiritual qualities play as large a part as do the more physical of the biologic processes."

This view Dr. Salmon hopes and believes will result in a medical education that will train physicians to deal with the total reactions of human beings—mental and physical and social.

—W. A. M.

Modern Methods of Treatment. By Logan Clendenning, M.D., Assistant Professor of Medicine and Lecturer on Therapeutics, Medical Department, University of Kansas. Illustrated, 692 pages. Cloth. Price, \$9.00. The C. V. Mosby Company, St. Louis, 1924.

This work is divided into two parts. Part I discusses with as much detail as can be expected in one volume various methods of treatment; rest, drugs, biologic therapy, extracts of the ductless glands, dietetics,

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heat and cold, hydrotherapy, medical gymnastics and massage, exercise, electro-therapeutics, radiotherapy, health resorts, psychotherapy, and various miscellaneous procedures not classified under the above heads. In Part II the author makes special application of therapeutics to particular diseases.

The reviewer is impressed with the care evident in the preparation of the book. The various therapeutic measures are described in simple, concise language and due credit is given to originators of special, well-recognized forms of treatment.

A very well worth-while volume for the general practitioner.
—W. A. M.

Nine more volumes of the National Health Series edited by the National Health Council and published by Funk and Wagnalls Company, New York and London, 1924, have been reviewed. This makes fourteen of these splendid little books available to the public at the price of 30 cents per volume.

Food for Health's Sake—What to Eat. By Lucy H. Gillett, A.M., Superintendent of the Nutrition Bureau of the New York Association for Improving the Condition of the Poor.

What to eat and why certain types of food should find a plan in our daily dietary are well emphasized by Miss Gillett. Information regarding the proper balancing of meals for families where strict economy is necessary is also most valuable for those whose incomes allow greater expenditure but whose lack of knowledge of the principles of nutrition permits vital mineral and vitamin deficiencies in the daily dietary.

The Quest for Health—Where It Is and Who Can Help Secure It. By James A. Lobey, Administrative Secretary, National Health Council; Associate Editor of the American Journal of Public Health.

The author speaks in a practical way of various health problems with which everyone should be concerned.

In the chapters "The High Road to Health" and "Progress on Life's Highway," he tells what health is, its importance, the influence of heredity, and personal hygiene upon health and the course of life from a health standpoint from the time life begins before the individual is born through babyhood down to old age and the end itself.

Other chapters are devoted to special problems such as tuberculosis, cancer, heart trouble, et cetera, which are encountered along the road to health and various guide posts on the highway, namely physicians, health departments and others.

It is a thoroughly interesting volume.

The Young Child's Health. By Henry L. K. Shaw, M.D., Clinical Professor of Diseases of Children, Albany Medical College, Formerly President American Child Hygiene Association.

To young parents particularly does this volume appeal. It is concerned with the development, health and care of the child during the "pre-school age"—from two to six years. The author stresses health and hygienic problems, common disorders of the pre-school age, together with suitable dietaries.

The importance of the chapter on Nervous and Backward Children is so great that one wishes it were longer and more complete.

The Human Machine—How Your Body Functions. By William H. Howell, Ph.D., M.D., L.L.D., Sc.D., School of Hygiene and Public Health, Johns Hopkins University.

Dr. Howell, one of the most eminent of physiologists, in this volume describes the important normal functions of the human mechanism in a concise but entertaining manner.

Too few individuals have a clear conception of the physiology of the body and this excellent presentation of the digestive, respiratory, circulatory, nervous, special-sense and reproductive functions as well as the description of the organs themselves should make a strong appeal to everyone.

Love and Marriage, Normal Sex Relations. By Thomas Walter Galloway, Ph.D., Litt.D., Associate Director Department of Educational Measures, American Social Hygiene Association, New York.

This is a valuable contribution written in a clear and understanding manner, particularly for parents and the younger generation old enough to contemplate marriage.

Taking Care of Your Heart. By T. Stewart Hart, A.M., M.D., President of the Association for the Prevention and Relief of Heart Diseases.

The mortality of organic heart disease now exceeds that of any other disease and this volume, briefly describing the heart and telling what heart disease is, its cause, possible means of prevention and symptoms to be noted by the individual, is most timely. In the chapter on "Diagnosis" the author properly lays great stress upon the fallacy of interpreting one's own symptoms and making a "self-diagnosis" of heart disease. In following chapters he urges physical examination by a competent physician and the patient's hearty cooperation with the doctor in the treatment which so often consists of careful regulation of the daily life.

The Expectant Mother, Care of Her Health. By Robert L. De Normandie, M.D., F.A.L.S., Instructor in Obstetrics, Harvard Medical School.

For the woman about to become a mother nothing is more important than a knowledge of her personal hygiene during pregnancy and a full understanding of normal and abnormal phenomena accompanying the condition. It is almost as necessary for the husband to be given as fully as possible the same information. In this work Dr. De Normandie tells in an entertaining and easily understandable way most if not all of the details the expectant mother and father should know regarding the pregnant state. Not the least valuable contribution in his insistence upon early supervision of the patient by the chosen physician or clinic and frequent and regular consultations during the entire pregnancy.

The Venereal Diseases. Their Medical, Nursing and Community Aspects. By William Freeman Snow, M.D., General Director American Social Hygiene Association.

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ORIGINAL ARTICLES

FRACTURES REQUIRING OPEN OPERATION*

BY JOSEPH F. SMITH, M.D.

WAUSAU

The end to be attained in the treatment of fractures is the restoration of anatomical structure. When this is accomplished in the highest possible degree, the two purposes of treatment are best achieved; namely, (1) the restoration of function and (2) restitution of the normal cosmetic appearance.

The restoration of function is by far the most important object to be accomplished and it may be said that the more nearly our treatment secures for the patient an anatomical replacement of fragments, the better the chances for restoration of normal function, other conditions being equal.

Exactly what degree of replacement must be accomplished in each individual case will depend at times upon many factors, such as the patient's occupation, his age, his social position and upon the physician's own judgment as to what constitutes satisfactory function in the individual case in hand. It has been shown by Speed, David, and others that children in the growing age possess in a remarkable degree the ability to compensate for shortening by compensatory growth. For this reason, fractures of the single long bones, such as the femur, in a growing child may be allowed a degree of overriding or overlapping which would constitute a serious disability in the adult. It follows then, that in the treatment of fractures of the single long bones in children, the physician need not attempt to obtain complete anatomical restoration without shortening; but may depend to some extent upon nature to help in the anatomical restoration during the processes of growth.

Again, there may be a considerable divergence of opinion in a given case as to what degree of

anatomical replacement may be necessary to secure a good functional result. This can only be decided in many instances by a reliance upon a wide experience with this class of cases and a due consideration of the patient's social position and functional requirements.

In these days when the laity have been taught the appearance of fractures as shown by the X-ray, a great deal more care must be exercised by the physician in securing the best possible reduction, carefully checked in all cases before and after treatment by X-ray pictures taken in two directions at right angles to each other. If there is any doubt in the physician's mind as to whether or not the result will be satisfactory to the patient, then the pictures should be shown to the patient and there should be a full discussion with him of the conditions, possibilities, etc. In this way, the patient, or those responsible for his care, should be made to share the responsibility for the final result.

In many cases of fracture, the nature of the injury or displacement is such as to make satisfactory replacement by conservative methods impossible from the very beginning; in others, after repeated attempts to secure and maintain satisfactory reduction by closed methods, the results are obviously unsatisfactory. In still other cases, in which a degree of reduction has been secured which promised satisfactory restoration of function, the patient, when shown the X-ray pictures, will insist upon a better anatomical reposition which can only be accomplished by an open reduction. It is in these cases, that some form of open operation must be carried out and the particular procedure best adapted to the case in hand must be selected.

The procedure of deliberately compounding a simple fracture should be carried out only after the most careful consideration and under conditions that afford the utmost safeguarding of the wound against infection. To reduce the displaced fragments of a broken femur by an open operation which leaves the patient with an osteomyelitis which may persist throughout the remainder of his life with varying degrees of resulting dis-

*Presented at the 78th annual meeting of the State Medical Society of Wisconsin, Green Bay, August 20-22, 1924.

ability is a procedure which produces a more deplorable condition than could have resulted from the most marked degree of misalignment.

Improperly placed incisions which destroy the nerve supply to the extremities, cause binding down of the muscles to the bones by large masses of dense scar tissue or destroy the flexibility of joints often leave the patient in a far worse condition than he would have been in had his fracture not been treated at all.

The matter of non-union resulting from open operations has probably been overestimated. It is doubtful if non-union occurs any more frequently in a group of fractures properly treated by open methods than would occur in a similar group treated by closed methods. The frequency with which one finds muscle, fascia or periosteum interposed between the ends of fractured bones at open operation would suggest this as a fruitful cause of non-union in the closed cases.

In carrying out the open treatment, the strictest aseptic technique should be used with avoidance of hand contact with the wound as far as possible. The materials or devices used to maintain reduction should be the simplest and easiest of application that can be used for the particular case in hand. After the application of the means of internal fixation, the fractured member should be immobilized just as completely as if the closed method of treatment were used. Muscle pull and stress must be controlled to avoid displacement of fragments or pulling out of pegs, screws, or nails. If non-absorbable fixation devices are used, they should be removed as soon as they have served to maintain fixation until displacement under ordinary conditions is no longer likely to occur. These devices can generally be removed under local anesthesia through a window in the cast, if one has been used, a few weeks before the cast is to be removed. In this way the wound is closed by the time the patient is ready for discharge. Due care to preserve the integrity of the soft parts and the motion of the joints by early massage, followed later by active and passive motion, will often add greatly to the patient's comfort and shorten the period of disability.

DISCUSSION

The discussion for this paper will be found following the paper by Dr. J. M. Dodd.

ADVANTAGES OF OX-BONE IN THE TREATMENT OF FRACTURES BY OPEN OPERATION*

BY WILSON CUNNINGHAM, M.D., F.A.C.S.

PLATTEVILLE

The conservative closed method of treating fractures is to be chosen when satisfactory end results can be anticipated by its employment. What might have passed as a satisfactory result a few years ago may, today, with the advent of the general use of the X-ray, appear mechanically very bad and cause much legal annoyance in spite of a good functional result.

In the light of present-day surgery, there is no question that open operation for certain fractures is advisable and even necessary in an increasingly large group of fractures which present certain difficulties. For example, in fractures of the patella with marked separation and interposition of the capsule, open operation is indicated. In cases of fracture of the olecranon process with marked separation, open operation offers the only hope for the possibility of a successful termination. Fracture of the radius with a displaced head, or fracture of the os calcis with displacement are bound to result unsatisfactorily, unless the surgeon resorts to open operation.

The fractures in which open operation may be advisable or necessary are as follows:

1. Fractures of the greater tuberosity of the humerus.
2. Fractures of the epicondyle, internal condyle, or external condyle or the humerus.
3. Fracture of the humerus into the elbow joint.
4. Certain degrees of green-stick fracture of the fore-arm.
5. Fractures of the carpus with displacement.
6. Supra-condylar fractures of the femur.
7. Fractures of the tibia.
8. Any fracture which it is impossible to reduce completely, or incompletely, beyond a certain degree, by the closed method, and in which a better result may be obtained by the open method.

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9. Fractures in which satisfactory reduction cannot be maintained. In these cases open operation is clearly the method of choice when definite contra-indications are not present.
10. Fractures in which non-union has followed closed manipulation.
11. Fractures followed by mal-union in which satisfactory, or nearly satisfactory, results can be achieved by open operation.

If the result which can be obtained by the closed method will not be satisfactory anatomically or functionally, and if the end result to be anticipated justifies the procedure, open operation is indicated and, in the absence of contra-indications, should be performed.

Every patient with a fracture should be considered individually as a distinct problem by the orthopedic surgeon. Other conditions for consideration are the control of the surroundings, as well as the equipment, experience, adaptability, and limitations of the surgeon with regard to the particular case in question. In any event, a surgeon must be available whose experience and skill justify him in attempting the particular task to be accomplished.

Once open operation has been decided upon, the easiest, quickest, and least extensive operation, which will most likely produce, in the hands of the operator, the desired results within a reasonable length of time and with the least probability of unpleasant or unfavorable results should be the operation of choice.

When desirable reduction has been accomplished and internal fixation and support are necessary, Sherman's Vanadium steel plates are probably the most easily and quickly applied adjunct at present available for the retention of the parts. For several reasons, however, Sherman's Vanadium steel plates, as well as Lane's plates, have many disadvantages. Among some of the objections to their use may be mentioned the following:

1. It is undesirable to introduce a foreign metallic substance into the tissues of the body, as it will generally have to be removed subsequently with the attendant annoyance and inconvenience to the patient and surgeon. If it is allowed to remain indefinitely there is likelihood of localization of an infection.
2. Steel plates interfere with osteogenesis, at

least at the site of the application of the plate if not in the entire area of the fractured surfaces. Callus is frequently found on the side opposite the plate, while it is entirely absent on the side where the plate was applied. Dr. Albee says, from his experience, that as a cause of non-union he would place Lane's plates at the top of the list.

3. Living bone will stand metallic pressure but a very short time, and it has been my experience that within a very few days Sherman's Vanadium steel plates or Lane's plates become loose and give no support. The bone about the screws is quickly destroyed, with holes resulting which are four or five times as large as the original ones.

4. As to the advisability of Parham-Martin bands or other metal clamps, I cannot speak from experience; but it seems reasonable that many of the objections to the use of Sherman's Vanadium steel plates, or Lane's plates, might be equally applicable to the use of metal bands or clamps.

Ox-bone plates, previously prepared and ready for use, I consider the most applicable and satisfactory of all extraneous adjuncts which may be used for internal fixation for the retention of most operative fractures.

The plates are made in various sizes. The length, width, and thickness of the one chosen are considered so as to meet the requirements of stress for the particular fracture in question. The larger bone plates are used in fractures of the long bones; when more strength than usual is necessary the central portion of the plate is made thicker, and stronger (Fig. 1). The plate is fashioned with a slightly concave surface to fit the convex surface of the bone more accurately.

The holes for the screws are counter sunk to receive the heads of the screws. The screws are made with a machine screw thread and a counter sunk head. When the screws are turned in the lathe a handle is left, partially detached (Fig. 1), so that after the screws are all in place this portion may readily be nipped off with a Liston's bone forceps, and the wound is ready to be closed. The reason for using this counter sunk head was shown by an attempt to use plates with tapped holes. These are mechanically wrong, as the plates remain in the same position relative to the fractured bone as they are at the time the first screw enters the tapped hole in the fractured bone. On the other hand, with the counter sunk



Fig. 1. Showing plates, screws, and pins made of ox-bone.
 (a) Plates of varying sizes and thickness.
 (b) Flat plates for skull repair.
 (c) Pins, of varying sizes.
 (d) Screw with 1, partially detached handle, 2, counter sunk head, and 3, machine screw thread.
 (e) Screw holder, showing manner screw is held.
 (f) Drill.
 (g) Tap.

plate and screw head, the fragments of bone can be drawn up to the plate as snugly as desired.

To make the plates and screws or pins, ordinary femur beef bone is obtained from the butcher shop, freed of all excess tissue, and boiled for about one hour in a mild bicarbonate of soda solution. After turning the screws, plates and pins, they are boiled in a solution of soda for thirty or forty minutes, which removes the fat and grease. They are then inspected and the perfect ones are wrapped in gauze and fractionally sterilized by boiling for twenty minutes each day for three successive days. They are then placed in a sterile mason jar, or other suitable retainer, where they may be kept until needed for operation. At the time of operation one of the sterile packages of plates and screws, or pins, needed is boiled for ten minutes when the contents are ready for use.

Bone to be used for mechanical support should never be placed in an autoclave either before turning the screws and plate or afterwards, as the high pressure steam renders it brittle, void of strength, and unable to withstand any great amount of stress.

In making up a supply of plates and screws it

is well to have an assortment of pins of a variety of sizes which may be used variously in fractures of the femur neck, olecranon process, os calcis, in oblique fractures of the long bones, or on any occasion when one or more pins seem more suitable than other buried mechanical support. These pins may be used any place where a nail might be suitable. The hole is drilled through both fragments or through one and into the second fragment; the pin is then driven in and cut off even with the surface of the bone.

When two pins are wanted for cleating the fragments of the fracture together, the holes are drilled at the desired oblique angle to each other and a pin is driven into each hole. I have also used the ox-bone screws for the same purpose in oblique fractures. Screw holes may be drilled into the fragments which are then tapped; screws are then introduced to hold the fragments together without applying a plate.

Another condition in which I have found ox-bone satisfactory is fracture of the skull with loss of substance. I have covered a considerable space with loss of both tables in fracture of the skull by placing a plate of ox-bone to cover the gap.

The first patient on whom I used ox-bone for this purpose was operated about two years ago. I used the ordinary ox-bone plate which I ordinarily employ for fracture plating, as I had no other prepared at that time. See Fig. 2. It answered the purpose, however, and the wound

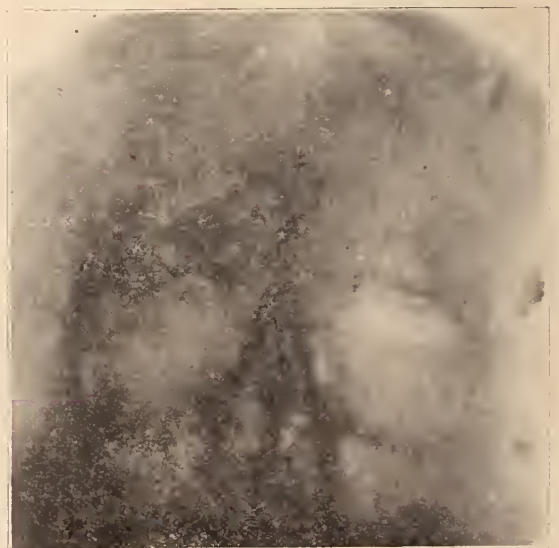


Fig. 2. Showing oxbone plate placed over opening through both tables of skull.



Fig. 3. X ray taken two years after operation showing opening through both tables of skull filled in with new bone.

healed and the opening in the skull with loss of both tables of the skull, caused by the end of a wagon tongue in a speeding automobile and



Fig. 4. X-ray showing wide separation of fragments of fracture of the patella.

team collision, closed over with bone, thus avoiding an unsightly, pulsating depression in the forehead. The ox-bone plate was gradually absorbed and the osteogenic forces replaced new bone in its stead. See Fig. 3.

Another very interesting case which I might relate here was one of complete fracture of the patella with wide separation of the fragments. See Fig. 4. It was impossible to obtain complete coaptation by closed reduction.

The accident occurred November 19th, 1923, and the operation was performed the following day. The blood clots were removed and the interposed tissues lifted out so that coaptation of the fragments was perfect. A small ox-bone plate was applied to the surface of the fragments; holes were drilled in the bone according to the spacing of the holes in the plate; the holes in the fragments were then tapped and ox-bone screws introduced and the fragments of the patella brought up snug to the plate. The handles of the screws were nipped off and the wound was closed. See Fig. 5. April 9, 1924 (five months after the accident), an X-ray was taken after the man had been working for some time and shows a very satisfactory condition. See Fig. 6.

Autogenous bone transplant is undoubtedly the most ideal for use in open operations for frac-



Fig. 5. X-ray showing fracture of patella with fragments in apposition and retained by oxbone plate and screws.



Fig. 6. X-ray of fracture of patella taken five months after operation. Note oxbone plate and screws nearly absorbed and perfect bony union of the patella.

ture and in certain cases of non-union, especially where there is considerable loss of bone substance. In such cases this may be the only treatment that will produce sufficient osteogenesis to give the desired result. Except in those particular cases where autogenous transplants are necessary, however, the extreme difficulty and the great length of time required for the technique of the transplant operation preclude its general use, unless by the most experienced and ingenious orthopedic surgeon.

Even under the most advantageous circumstances the use of the autogenous transplant might well be limited to that variety of cases in which the use of ox-bone would not stimulate the necessary osteogenesis. When ox-bone plates will answer the purpose, their convenience, the greater ease with which the operation can be performed, and the more perfect mechanical result which can be obtained surely commend their use.

Ox-bone plates and screws, or pins, remain firm in the host and do not loosen or produce destruction of the bone as do steel plates and screws. The blood vessels extend through the Haversian canals of the ox-bone so that circulation is soon established, which aids in the extension of osteo-

genesis from the living bone; in time, the ox-bone is absorbed and the osteogenic forces replace new bone in its stead.

A transplant which is not autogenous probably meets the same fate as does ox-bone in that it merely supplies the support and furnishes the frame work for the extension of circulation until the osteogenic forces replace the same with new bone.

CONCLUSIONS

Many fractures present difficulties which require treatment by osteosynthesis.

The time for operation following a fracture depends on various factors, such as the condition of the patient and the nature of the injury, but with favorable conditions there is no reason why operation should not be performed within the first 24 or 36 hours.

The use of absorbable materials for internal fixation and support should be preferred to non-absorbable materials.

Metal screws, plates, or nails act as foreign bodies and tend to localize haemic or contiguous infection; they soon become loose and useless from a supportive standpoint.

Metallic plates interfere with osteogenesis, and the cause of non-union may, at times, be attributed to their use.

Except when an autogenous transplant is necessary because of its high osteogenic powers, ox-bone is recommended for use in the treatment of fractures by osteosynthesis, and even when an autogenous transplant is used, ox-bone screws may be employed with considerable advantage for the fixation of the transplant, and thereby simplify and shorten the time of operation.

A few of the advantages of the use of ox-bone are:

1. Ox-bone is absorbable and the necessity of subsequent removal is avoided.
2. When ox-bone is placed in firm contact with fractured bone it remains fixed and becomes vascularized, and then not only acts as a support but aids in the extension and formation of new bone.
3. The ease of preparation and comparative simplicity of the application of ox-bone for internal fixation in fractures shortens and simplifies the operation very materially.

The discussion for this paper will be found following the paper by Dr. J. M. Dodd.

PRESERVATION OF FUNCTION AFTER ACCIDENTS TO THE FEET*

BY J. M. DODD, M.D., F.A.C.S.

ASHLAND

The value of a paper to a group of practicing physicians and surgeons depends on its lesson being presented in such a manner as to make it readily applicable in practice when occasion arises.

I have, therefore, chosen as the subject of this short paper, the "Preservation of Function After Accidents to the Feet," causing loss of tissue, and distortion of its members, believing that the deductions from my own experience will be helpful to my fellow practitioners.

Among the frost bites, cuts, lacerations and fractures to which the foot is so often subjected, the surgeon is put to an extreme test of surgical judgment in deciding what must be removed and what may be restored to at least partial usefulness, and what measures shall be adopted to attain the desired end.

As an anatomical study the foot is most interesting. Here is a collection of bones so shaped and arranged and held together by ligaments and interlaced with tendons as to make a structure mobile, elastic, strong and adapted to support the weight of the body, yet capable of all movements necessary to locomotion with the grace and agility which constitutes one of the chief charms of physical movement.

The body support conveyed through the bones of the leg at the ankle rests upon the keystone of an arch so that the points of contact of the foot with the ground are some distance from the center of gravity of the leg. Therefore, the body rests on an elliptic spring with the convex side upward, thus taking up the jar so distinctly felt when one tries to walk on his heels or on stilts, and which is so noticeable in the stubby gait of the flat-footed person.

On the study of the foot we find that the arch is not antero-posterior alone; but an arch in all directions, forming a cone of irregular outline with its concavity directed for the most part downward and inward, thus adding to the cushion effect of the body support. It is found that the

weight is applied, not at the middle of the antero-posterior diameter of the foot, but back of the middle, a provision of nature which gives spring and mobility to the foot which it could not otherwise have.

The foot rests on a triangular buttress with the heel as the apex and the ball of the foot forming the base. The outer side of the foot bears very little weight while the inner side does not touch the ground surface while standing. The weight is borne on the heel and ball of the great toe and to a lesser degree the ball of the other toes.

The toes have little weight to bear and their chief function is to increase the spring of the foot in walking, unless they are developed beyond the intention of nature as in toe dancing.

If any part of the foot is to be sacrificed, it is the toes that will be missed the least, and in the repair of injuries of the foot every effort should be made to preserve the bearing surfaces, if possible, and without regard to flap covering of the exposed ends. The loss of the heel is more easily corrected by prosthesis than is the ball of the foot. Amputation through the metatarsals destroys the front bearing so that it cannot be restored by any means that may be applied. The full length of the first metatarsal is of more importance than all the others, though loss of any of them cripples the foot by lessening the area of the bearing surface. Loss of either front or rear bearing surface throws the foot out of alignment with the leg and disturbs the normal gait. A foot in which the arch is obliterated and has lost its spring, except for a broader bearing surface, is little better than a peg, and the gait of the person who has sustained such loss is so characteristic that the defect is apparent when the gait is observed. Study of skiagraphs of the normal foot will serve to illustrate the points I have endeavored to bring out.

There is a great temptation to cover every amputation stump with a flap. Experience teaches us that this is not necessary, and lay opinion, which it might be feared would not approve of what would appear to be incomplete surgery, is easily influenced by an explanation of what we are trying to accomplish.

A stump, smooth, well-rounded and healed by primary union may bespeak good surgical technique, but the functional result may be most unsatisfactory. Such a stump may get the

*Presented at the 78th annual meeting of the State Medical Society of Wisconsin, Green Bay, August 20-22, 1924.

patient out of the hospital in a short time, but he may spend the rest of his days trying to get some sort of a shoe fitted to his foot that will enable him to walk on it comfortably.

A few weeks or even months treatment of an open stump may make the same stump useful and comfortable. If a bearing surface can be preserved by the method of requiring the longer time, then it is far better surgery to remove what must be removed by reason of destroyed blood supply, using such sutures as may be applied without undue compression or tension on the flaps and then wait for healing by granulation.

During the extreme cold of last January a man froze both feet so that the toes of both feet became gangrenous. The line of demarcation was allowed to form, the tissues at that point to become adherent and the channels of possible infection to become sealed. This line corresponded to the metatarso-phalangeal joint, and when separation was well under way the toes were removed. No sutures were used; the articular surfaces of the metatarsals lay at the level edges of the soft tissues. Warm, moist antiseptic dressings were used, and granulation progressed slowly until the ends were entirely covered. Granulations had sprung up and covered the articular ends except in a few places where a thin shell of bone was exfoliated and though it took seven months to heal over these stumps, the ball of the foot was preserved and the man now walks almost as well as before.

Had I amputated to get flaps to cover the stumps the foot would have been shortened, thrown out of relation with the leg, the tendons would have been released at their distal ends, and a decided crippling would have resulted.

Keeping a gangrenous member antiseptic, promoting dry instead of moist gangrene favors the agglutination of all the soft tissues, including the tendons at the line of demarcation, and there is no retraction which would disorder the relation of the muscles requiring many months for their retraining. We may thus avoid the infection of tendon sheaths, which is the complication most to be feared. Foot injuries, when the soft parts are intact, should be X-rayed for fractures, sprains and displacement of bones. It is most important that even slight displacements be recognized and replaced if possible; for the tarsals or metatarsals,

if even slightly out of place, leave a crippling effect that is generally permanent.

It is found also that a bone, with the exposed end covered by articular cartilage, does much better than the raw end of a bone that has been divided by saw or bone cutting forceps.

The points, therefore, are: To save all tissues not devitalized which still have a blood supply. Shape the stump as well as possible without destroying a bearing surface. Do not remove the articular cartilage. Use sutures with care not to unduly stretch or constrict tissues. If sloughing is unavoidable as in frost bite, make it a dry gangrene if possible, and be in no hurry to remove the dead tissues. Promote granulations with warm, moist antiseptic dressings and later skin graft if necessary to cover end of stump. In this work nature will do much to preserve function if she is aided and given time.

It is difficult to replace broken and displaced bones in the foot; but our efforts should be directed to maintaining the arch of the foot and proper relation of the bearing surfaces, even resorting to tenotomy, when necessary, to attain our object.

It is almost always best to cut the tendo Achilles in fracture of the os calcis, otherwise the upward pull of this tendon will flatten out the heel and produce a form of flat-foot that is a bad deformity, very difficult to treat satisfactorily.

Restoration and preservation of the normal arch of the foot, when once deranged, is one of the most important and difficult measures in surgical practice, and, therefore, should have our most studious care.

DISCUSSION

The foregoing three papers were discussed as a symposium. The discussion follows:

PRESIDENT SLEYSER: These papers are now open for discussion.

DR. J. A. JACKSON, Madison, Wis.: I certainly was very much pleased to have this opportunity of observing Dr. Smith's pictures and radiographs and of hearing his talk. I have heard about Dr. Smith's work for a good many years but I have never had the pleasure before of seeing his results. Dr. Smith is indeed very modest in the way he glides over the operative end of this work. One might think from seeing these cases and these beautiful results that the open reduction of fractures is a very simple procedure. I believe that is one thing a great many surgeons should be cautioned about when they see these plates, because some men will consider themselves qualified to go right ahead and do

this work. I want to tell you that there is no more difficult task in surgery than the open treatment of fractures. From the beginning to the end, the surgeon who is in charge must watch every detail, he cannot delegate this work to others, but must do it himself.

In one of these difficult cases of fracture, the surgeon, if he has a conscience, carefully observes the technique of preparation from the minute he goes into the anaesthetic room, through each stage of the operation until the final layer of the cast has been put on. The actual reduction in many cases is a difficult procedure, but once the fracture and bone ends have been exposed, the surgeon may obtain extraordinarily good results. Complete exposure allows much more accurate treatment than any other method. Reduction must be accomplished without allowing a hand or anything which has touched a hand to come in contact with the wound. In other words, a very, very careful line of technique must be observed. It is true one can obtain occasional good results without using the strictest care, but when results are summed up, you will find that surgeons who fail to observe the Lane technique are continually in trouble and they are the very men who say that open reduction is a most undesirable procedure. Dr. Smith has shown case after case in which he has obtained good results. Why did he get those results? Simply because he accurately followed Lane's technique and if he hadn't done so, he would not have been able to show you these plates.

I am interested in the one case in which the plate broke and wonder whether a vanadium plate was used. In one of my own cases the plate broke due to the patient's developing tetanus. It was a compound fracture and the patient broke one of the heaviest vanadium plates. This is the only case of mine in which the plate broke.

Taking the patient into the confidence of the doctor is another very strong point that Dr. Smith brought out. I invariably do so; the surgeon who tries to put something over on the people in a fracture case is nothing better than a fool. The dangers and limitations of the treatment should be explained thoroughly. The surgeon need not take the whole responsibility. In fourteen years of this fracture work I have never had a lawsuit, and I hope I never will, though maybe my next case will bring me one. If my patients are not perfectly satisfied when I start in with them after explaining the situation, they are welcome to seek treatment elsewhere. I tell these patients in the beginning that I am a crank about fractures, and I want to do everything possible in the best possible way. Don't try to hold a fracture case and glide over anything. If a good result is obtained, the patient is more than pleased; if the result is not what you hoped, the patient has no reason for complaint as you had previously explained the situation.

Another point about open reduction is that physiotherapy may be commenced early. Since the installation of a physiotherapy department in our group, I have found my results are a great deal better; that is, the patients become ambulatory much sooner. I imme-

diately institute physiotherapy, massage and diathermy. In these cases I do not carry mobilization to the same extent that I do in closed reduction.

I rely on getting absolute reduction and use very strong plates and plenty of screws in the large bones; then, I need not fear difficulty in holding them afterwards. Casts are cut down and the extremities are left more accessible so that early massaging of the muscles may be instituted; in fractures of the femur, I leave the patella free so that it can be moved daily. In all fractures of the femur in which a cast is applied, a window is always left over the patella so that this bone may be manipulated daily to prevent the joint from becoming stiff. This is advisable, since it is between the patella and femur where the first adhesions form.

In all of my open reduction treatment of fractures I have never hesitated to use a steel plate, a Martin-Parham band, a nail, a piece of wire, a bone graft, or other methods of fixation when I felt that it best fulfilled the mechanical requirement. In other words, I have not limited myself to one type of fixation as so many surgeons do. The proof of my results is that I am still as enthusiastic about this work as I was when I started and surely if my results were not good, I would have become discouraged and stopped long ago. It is amusing to me to hear a man say in derision of this work that although he has never put in a plate, he has taken out several. My own feeling and practice is to take out all plates or metal which are just beneath the skin as in fractures of the tibia or clavicle. Those that are deeply buried beneath the muscles need never come out if they have been properly put in.

I want to repeat my words of appreciation of the excellence of Dr. Smith's results. I do not believe anybody here, outside of those who are doing this work, realizes the amount of work Dr. Smith put in on every one of the cases he showed you (Applause).

DR. J. W. POWERS, Milwaukee: It is a good deal like carrying coals to New Castle to attempt to add anything to Dr. Smith's paper, and I am not going to attempt it. However, there are certain points that I would like to stress. He glided over and merely mentioned the fact that open operation should be done after several attempts at closed reduction. Now this I think especially should be stressed, for the reason, that no matter if the best of results are obtained after an open reduction, done in the cleverest manner, the convalescence is going to be longer in those cases than it is where a manipulation alone has been successful. These manipulations of a closed reduction should be done repeatedly, checked up by the fluoroscope and with plenty of assistance, keeping your patient informed or the family informed as to the progress of your results. It isn't any disgrace at all to fail to one or two attempts at reducing a fracture and I would be perfectly honest with the patient and insist on an opportunity for more than one attempt. Frequently an open reduction can be avoided.

Now an open reduction is very properly named an open reduction, for the reason that possibly seventy-five

per cent of the value of an open reduction is the reduction. You can't discard external splinting by putting in some form of internal splint in the fracture; you must have just as thorough or even more thorough mobilization and fixation in an open reduction than you would have in the other. Therefore, the reduction is the important part of the open reduction; internal splinting is merely an incident.

We have been reading of Dr. Smith's results for years and Dr. Smith has undoubtedly developed an individual technique and is doing this work very easily, and, as Dr. Jackson says, leaves the impression that this is a very easy type of work.

Now I am not in hearty accord with the use of plates or any non-absorbable material. Dr. Smith showed some excellent results with it. That is an individual thing. I think as a class of cases that it is much more difficult to get a result with a non-absorbable material than it is with absorbable material. You can hold a fracture with heavy catgut or kangaroo tendon or strips of fascia lata. You can splint them with bone grafts and bone pegs, with a much simpler technique to my way of thinking than you can with plates. You can reshape the ends of a bone so that these oblique fractures don't over-ride, so they are not so difficult to hold, but in all cases a great deal of attention must be paid to your external splinting.

In the case of fracture of the astragalus Dr. Smith obtained an excellent result. I think, however, in cases of fracture of the astragalus, particularly where there is comminution, your astragalus broken into a number of pieces, you do not need fear doing an astragalectomy. However, I would like to stress in doing an astragalectomy there must be a backward displacement of the foot. The tissues must be deflected up high enough on the tibia and fibula, and the capsule of the joint high enough so you have room to get a considerable backward displacement of the foot. This, of course, is put up in plaster at this time and at the end of three weeks this plaster should be taken off and a walking cast put on, and the patient should be put on the foot at the end of three weeks. I think that is the most essential thing in those cases and really excellent results can be obtained. However, where one has a case where the procedure of Dr. Smith's can be carried out, that would give good results (Applause).

DR. NUTZUM: Dr. Smith always gives us something good. Before the days of the X-ray and the bone plate, we seldom had a non-union, they were rare and the functional results were usually very good. We didn't have to contend with the X-ray. Just how our bones looked we could not determine but we know that the functional results were reasonably good. Murphy stressed the fact that a fracture in an animal always healed. I remember when I was a boy we had a cow that broke her leg. It healed. She had a tremendous deformity but it healed.

He pointed out that the plate held the fracture so still that you were more apt to get a non-union, and we have been able to show that in the picture, the side

upon which the plate was placed did not unite as well as the opposite side of the bone where it came more closely in contact.

I had the privilege of seeing Sir Lane's work for two months in 1914, and he was plating everything, the clavicle, every fracture that I saw him treat he plated, as well as removing the colon for goiter, gall stones and all forms of disease, including tuberculosis. He was curing all of those by removing the colon. He was a wonderful technician, a wonderful operator and had wonderful results and still he couldn't convince me that it was necessary to plate all of those bones nor that removing the colon was a cure-all. I think that has been largely abandoned by this time, and I think the great majority of fractures can be reduced reasonably with good functional results under the fluoroscope, and that very, very few fractures really require plating.

I am glad to see the Doctor's results. I have seen a good many of those cases where they had an osteomyelitis that gave a tremendous amount of trouble. I want to say we don't plate very many bones. We do, however, have to make an open reduction sometimes and we do have to reshape the ends of the bones so they will support each other and that can be done in the great majority of cases (Applause).

DR. DOEGE: I wish to speak in regard to Dr. Smith's paper. Dr. Smith made this statement, that in not properly reduced fractures of the long bones of children, where there is an overlapping of the fragments and consequent shortening of the limb, nature corrects the surgeon's work by actual lengthening of the bones by subsequent growth. If true, this is new to me; and I, perhaps, display my ignorance by questioning it. In a case of a femur, I really cannot see by what efforts on the part of nature such lengthening could be accomplished. I know, of course, that when one leg is shorter than the other, adjustment or compensation takes place by a tilting of the pelvis; but that actual lengthening of the short bone occurs, this I would seriously doubt. I would like to know of Dr. Smith whether he has ascertained the fact as stated by him, by actual measurements, or if not, what authority he has for that statement.

I fully agree with what Dr. Jackson said about the work on bones. It is not work to be done by everybody, or by the occasional surgeon; nor is it work to be done anywhere except in a well equipped operating room. The technique of bone work must be carried on very carefully, or we will not have uniformly good results. (Applause).

DR. JOHN R. MINAHAN: Mr. President, I listened to these papers with a great deal of interest. Some of the finest results that I have ever seen on fractures have been obtained by using Lane's splints and by using the bone splints of Dr. Cunningham, and some of the very worst cases that I have ever had to treat I have seen following Lane's splints. The question in my mind that often comes to me is how many doctors with a fracture of the femur would have Lane's splints put on? I am afraid some years ago the great tendency was prac-

tically—advocated by a great many men—to plate every fracture. I believe we are receding from that position now. In the last few years I think there are less Lane splints being used than there were several years ago, which is a very good indication that the final results that we are looking for were not obtained.

I am afraid that if we depend on the open operation too much, we will lose the art that we should have of trying to adjust those fractures without an open operation. Of course, the Doctors that have presented the papers told us they should only be used after an effort had been made, but the point I wish to make is that the effort will not be strong enough, that you will depend too much on the open operation. I must confess that I have never in my life used the Lane splint, but I will further confess I have removed a great many of them and the results were not gratifying at all to the men that put them in.

Now we have got to stand together. The man that has a fracture of the leg and gets a good functional result is afraid of what? He is afraid of the X-ray. When a man has a fracture of the leg and gets a good functional result, I don't care what the X-ray shows. If he has a good functional result, he has the very best condition that he can get.

Every time I go to a medical society and get one good point, I feel I am well paid for going, and the point that Dr. Dodd made about preserving that foot is invaluable to us if we make use of it (Applause).

PRESIDENT SLEYSER: If there is no further discussion I will ask the essayists to close. Dr. Smith.

DR. JOSEPH SMITH: I want to thank the gentlemen who have brought out points which for lack of time I did not have the opportunity to bring out. I want to emphasize what Dr. Jackson said, that in the after care of these patients external splinting should be depended upon just as completely as is done in a case where no open reduction has been performed. I also want to emphasize the importance of early massage, especially in fractures of the femur early massage applied to the patella and knee joint. This can be very well done by a large window cut in the cast.

Regarding the points brought out by Dr. Powers, I should like to also emphasize that open reduction is not synonymous with internal splinting. The internal splint, so-called, is not to be relied upon in any case to maintain the reduction instead of the external splint or cast. Furthermore, even when an internal splint has been put on after an open reduction and a cast applied, extreme care should be exercised to control these cases and be sure that the muscle pulls do not produce a deformity even inside of a well applied cast. I refer particularly to cases of fracture of the femur where in spite of a plate and well applied cast, bowing of the femur will occur from pull of the muscles if the cast is not well controlled.

As to the matter of non-union, I think the early removal of the plates or internal fixation material where non-absorbable material has been used is one means of avoiding a non-union.

Now regarding the use of absorbable plates, I would like to show just one slide. I think that is all right in cases like Dr. Cunningham's where he prepares his own material. I want to warn you against using the material purchased prepared for this purpose. This slide shows a plate I removed that had been in nine months. Evidently four screws had been used. Two of them disappeared, the other two were quite perfectly intact with little or no evidence of absorption of the original plate. The trouble with the absorbable plates is they are not absorbable and they frequently make more trouble than a metallic plate.

We have seen one non-union and this followed a case of bone grafting. We have seen two cases of delayed union after plating, and I think this disproves the statement of Albee that the use of non-absorbable material is the most fruitful cause of non-union.

Now in regard to the matter of infection. We have seen two very serious infections. One of these followed a case of bone grafting which was done the next day after the fracture of the tibia and the other was a compound fracture of the femur in which we applied a circular silver wire the next day after the injury. These are the only two cases of serious infection we have had. We think we avoid this to some extent by delaying operation. We never operate any of these cases under a week after the injury. I believe in the old principle laid down by Murphy: a few days of waiting until the tissues are coffer-dammed is a very useful means of protection against infection.

In reply to Dr. Doege's inquiry, I should like to refer him to the work of Dr. David who, in a paper read before the Western Surgical Association last year, showed an actual physiological compensation occurs in children during the growing age.

Referring to Dr. Minahan's experience of taking out plates, I think we have all had that experience and my answer to that is the man who put them in should take them out before the other fellow gets a chance (Laughter and applause).

DR. CUNNINGHAM: For the protection of the fragments, as Dr. Smith and Dr. Jackson brought out, it is very necessary to immobilize the fractured member thoroughly and absolutely and not depend upon the internal fixation. The internal fixation is merely to assure one of a more accurate and a more perfect apposition than is possible by the splints and traction alone. I use splints and traction when indicated in all cases of internal fixation as though I had not used the internal fixation at all.

With reference to the plate Dr. Smith just showed, that plate has a tapped hole. In putting on that kind of a plate, the plate is always in the same relative position to the bone as the plate is when the screw first enters the fractured fragment, because the hole in the plate is tapped as well as the opening in the bone, therefore, there is no chance to either draw that plate down snugly to the bone nor the fragments up snugly to the plate. As a result, there is greater liability of imperfect immobilization. After the tenth day, or thereabout,

it is very necessary to have the limb immobilized as well as possible for the following week or ten days, as this is usually about the time of the beginning formation of the new blood supply. Movement of the fragments or movement of the internal splints will tend to break up the new bone formation and the new blood vessel formation and interfere with the new circulation of the part. By having screws that will draw the plate down firmly and snugly the plate tends to hold the fragments without motion.

As to the time of operation, for a good while I made it a rule to wait a week or ten days or two weeks, usually ten or twelve days, before operating. I have found by experience that with a fracture in which plating is indicated and there is no marked mutilation of the surrounding soft tissue, operation may be done the same or the following days as well as later. What is the difference whether you operate the next day or ten days later? You are gaining considerable time in the healing process by operating at once, granting there are no contra indications. If you have a severe contusion like some of the cases I have shown upon the screen where there was a compound fracture with considerable mutilation of the surrounding soft parts, preliminary antiseptic treatment and drainage, if necessary, is continued until the tissues have reached a fair state of resistance. This may be a week or ten days or two weeks before it is advisable to operate. If there is infection present, control the infection first, if possible. In some cases one cannot control the infection entirely, but if you can, control the infection before applying the plate.

I thank you (Applause).

DR. DODD: Mr. President, the principal point I wish to have emphasized in my paper is to preserve the bearing points of the foot even if to do so means an open wound and a long healing process. Do not amputate for the sake of getting flaps to cover the stump in injuries or in gangrene from frost bite or other causes.

There is a tendency on the part of the surgeon to want to get rid of dead tissue when an extremity is gangrenous, but it is unwise to remove the dead parts until the line of demarcation is well formed. Leave it to nature because while the separation is going on the tissues on the living side of the line are becoming agglutinated and tendon sheaths, lymphatics and other structures are becoming adherent and channels of infection are being sealed, and infection, when operation is finally done, is much less liable to occur.

Another point I mentioned in the paper, and I wish to stress it here, is to leave bones covered with articular cartilage whenever it is possible to do so in amputating through a joint. Whenever a bone is present in the wound covered with articular cartilage, don't be in any hurry about removing it. Nature will take care of it. It is surprising how granulations will spring up over articular cartilage and stumps heal in that way giving much more satisfactory results than when we attempt to do a neat mechanical job in the beginning at the sacrifice of essential bone structure (Applause).

CHLORINE GAS—ITS USES A HUNDRED YEARS AGO. ITS USES TODAY AS A THERAPEUTIC AGENT IN CERTAIN RESPIRATORY DISEASES WITH REPORT OF 900 CASES*

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Editor's Note—With the kind approval of the author this paper has been somewhat condensed to permit this early publication.

INTRODUCTION

The marked interest displayed by members of the medical profession and the public in general concerning the use of chlorine gas as a preventative of and for the treatment of certain respiratory diseases, has prompted the paper here presented, which is devoted to a brief discussion of this important subject from a purely practical point of view.

Before beginning the discussion, a few moments will be devoted to some very interesting historical data that have recently been discovered while searching through some old medical archives in the library of the Surgeon-General of the Army. These have been so interesting to the speaker that it is believed they will be equally interesting to you.

According to these archives, one hundred years ago, in 1824, the medical world was awakened to the fact that a new remedy for many affections was being used by the famous physician, William Wallace of Dublin. Under the title, "Researches Respecting the Medical Powers of Chlorine Gas," published by him at that date, he concludes an interesting and graphic exposure of the potency of chlorine gas as follows:

"I use chlorine, and I recommend a trial of it on general principles; and, if employed on such principles, I assert that it will be found a most valuable agent in the practice of medicine.

"In short, my object cannot be mistaken. It is solely to communicate to the profession such facts

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as may induce them to put this new and valuable remedy fairly and carefully to the trial of general experiences; that test by which the importance of every new proposal in the practice of medicine must be fully estimated."

This keen-sighted research worker, a member of the Royal College of Surgeons in Ireland, one of the surgeons to the Charitable Infirmary in Jervis Street, surgeon of the Dublin Infirmary for the treatment of diseases of skin, lecturer on anatomy and surgery, etc., prior to the publication, had a knowledge of the efficacy of this gas even as early as 1816, because there appeared at that time in the quarterly *Journal of Science* No. 2, of said year, the statement that "chlorine is known to be an elementary body of the greatest activity, of the powers of which over diseases we are nearly in total ignorance."

With regard to the application of this gas, Dr. Wallace gave a description in an address to the medical profession, including the medical attendants of hospitals, in which he emphatically pointed out the advantages which were likely to arise to the public from the establishment in charitable institutions, and from the general employment in private practice of an apparatus for the application of medicine in the form of gas or vapor to the body. He stated:

"Were it required that I should, in a general way, communicate my opinion respecting the diseases, besides those of the liver, in which I should expect from my knowledge of the mode of action of chlorine that it might be usefully employed, I would answer that it deserves a trial in all cachectic states of the system; and in every disease, of whatever kind it may be, which we might naturally hope to benefit, by stimulating or restoring the functions of the skin, or by keeping up, in this important covering, a state of permanent irritation.

"As examples of the former class, I may mention scrofula and lues, and many chronic inflammations of the fibrous and mucous tissues, such as catarrh, etc. . . . I have every reason to suppose that these advantages are, oftentimes, of the very first importance in the treatment of disease. Indeed, unless I am greatly mistaken, chlorine gas will, from hence-forward, be much employed in conjunction with air or aqueous vapor, merely as a general cutaneous stimulant; and, for this purpose,

it will be found superior, on several occasions, to many others, even to sulphureous fumigation."

Thus, one notes that after a lapse of one hundred years, the remedy advocated then, for its efficacy in respiratory diseases, springs anew.

We are told that primitive peoples, from the earliest times, had some knowledge of medicine, even though they did not understand the phenomena of disease, which, in their time, they attributed to supernatural causes. The theory of chlorine gas, a century ago, reflects the views that are being brought forth today.

The origin of the present apparently successful use of chlorine for the treatment of respiratory disease dates back to 1918 and had its genesis in the observations of medical officers in our Army who were stationed along the front lines. There it was observed that, notwithstanding that the great influenza epidemic was filling our hospitals with those stricken with the disease, the hospitals in the front areas were almost devoid of cases of this nature. Consequently, it did not take the medical officers long to attribute this immunity in the trenches to the presence of gas. They not only took advantage of the immunizing effects of chlorine but used it for treatment.

Based on this theory the chief surgeon of one of our divisions in France directed that chlorine be used for the treatment of respiratory disease, and as a result, those so treated were considerably improved.

In the summer of 1922 a very convincing test was carried out at Camp Perry, Ohio. Here a gas chamber was fitted up in the Administration Building and all soldiers and others who were suffering from common colds, or bronchitis, both of which were so prevalent at the time, due to the changeable conditions of the weather, were ordered to this chamber where they remained for one hour. As a result a large percentage of those treated were practically cured.

These facts were reported by the chief of the Chemical Warfare Service to the Secretary of War, who gave them so much credence that he cited them in his annual report of that year to the President.

Lieutenant-Colonel Edward B. Vedder of the Medical Corps of the United States Army, in charge of the Medical Research Laboratory at Edgewood Arsenal, and his able assistant, Captain

Harold P. Sawyer of the Medical Corps, began a scientific investigation, along these lines, about a year and a half ago. They treated in a specially constructed chamber at Edgewood Arsenal, during this period, over nine hundred and thirty persons affected with respiratory diseases. In addition, they made extensive laboratory experiments on different organisms. As a result of their efforts, they arrived at certain definite conclusions which proved, beyond a doubt, that chlorine gas has a decided action on the retardation of the growth of organisms. Furthermore, it acts as a specific in certain respects in connection with disease of the upper respiratory tract. Their splendid report was published in the *Journal of the American Medical Association*, March 8th, 1924.

It was early recognized that the success of the treatment depended largely upon two important factors, as follows:

First: The introduction of a sufficient amount of chlorine gas of a concentration capable of producing therapeutic results.

Second: The maintaining of this concentration constant throughout the period of treatment.

Before the patient enters the chamber an initial charge of chlorine gas of sufficient concentration to chlorinate the air is ejected therein. The concentration is then maintained constantly throughout the entire period of treatment, by the constant automatic introduction of pure chlorine gas from the ejector—scoopage method—which is regulated and controlled by the construction of the ejector.

The apparatus is placed on a shelf on the outside of the chamber and the gas enters through a five-sixteenths inch glass tube, one end of which is attached to the ejector, the other end or outlet, extended to the center of the chamber seven feet above the floor, thus permitting a constant inflow of gas to drift down and be taken up by the draft from the electric fan and thereby equally distributed. It was found that if the gas entered the chamber suddenly, by pulsations or gusts, its constancy could not be controlled and it also produced unpleasant effects and often caused the patients to hack and cough. It is not advisable to have the chlorine ejector inside of the chamber, for the reason that this also necessitates the presence there of the operator. It has been observed that the continuous inhalation of large quantities of chlorine gas, even at the prescribed

concentrations, is liable to produce slight irritation of the upper respiratory tract.

Some persons are very susceptible to chlorine gas and this must be considered in its administration. This has been demonstrated daily in the experiments conducted by the speaker. After treatment some will say, "the gas was very strong today," while others, sitting adjoining, will claim the gas was very weak, demonstrating conclusively that the individual susceptibility of different persons must be considered. The age of the patient, however, has no bearing on this factor. In one sitting in the chamber there was a lady eighty-seven years of age suffering from chronic bronchitis, while sitting in an adjoining chair was a mother holding a nursing babe three months old, suffering from an acute cold. Both of these persons were inhaling the same concentration of gas and under like conditions.

While the results of the treatment obtained by the speaker are not so flattering as some heretofore published, yet, considering the nature of the cases, the chronicity of the diseases and the fact that no individual treatments could be given, it is believed these results must be considered highly satisfactory. In conducting this work, people suffering from every conceivable disease applied for treatment, thinking chlorine gas would cure them of their ailments. Naturally, the felt greatly disappointed when they learned the truth and in a few instances saw fit to condemn the treatment most severely. Others who had been sufferers for years with chronic ailments of the respiratory tract also criticised it, simply because a single treatment did not produce a complete cure.

Attention is now invited to the accompanying tables which express both numerically and graphically the results of nine hundred cases treated. Accurate records not having been kept of patients treated at the capital chamber and elsewhere, these are not included. A brief analysis of the table reveals some interesting data. It will be observed that six hundred forty-eight males and two hundred fifty-two females received two thousand five hundred ten treatments, or an average of 2.7 treatments for each case; three hundred thirty-nine cases were discharged as improved for the reason that the demand for treatment prevented them from continuing. In many of these cases an additional treatment would have resulted in

-DISEASES-	MALES.	FEMALES.	TOTAL.	ACUTE	CHRONIC.	TREATMENTS.	IMPROVED.	NOT IMPROVED.	CURED.	RESULT UNKNOWN.	PERCENTAGE			
											IMPROVED.	NOT IMPROVED.	CURED.	IMPRVD-CURED
ASTHMA.	9	17	26		26	134	8	13	2	3	34	57	9	43
ACUTE BRONCHITIS	74	44	118	118		380	45	7	54	12	42	6	52	94
CHRON. BRONCHITIS	29	21	50		50	250	17	9	21	3	34	19	47	81
BRONCHIECTASIS	2		2		2	5		2				100		
CATARRH.	41	15	56		56	201	31	11	1	13	71	27	2	73
CORYZA	373	92	465	465		862	170	19	234	42	40	5	55	95
CHRONIC COLDS.	36	15	51		51	173	14	7	20	10	34	17	49	83
HAY FEVER.	7	9	16		16	38	2	13		1	13	87		13
LARYNGITIS.	10	9	19	4	15	44	8	1	3	7	66	9	25	91
PHARYNGITIS.	9	2	11	2	9	34	7	1	1	2	78	11	11	89
PSORIASIS	2		2		2	5			2				100	100
CHRON. RHINITIS	16	6	22		22	90	8	10	3	1	39	48	13	52
SINUS INVOLV. MT.	12	5	17	1	16	63	10	5		2	66	34		66
WHOOPIG COUGH.	28	17	45		45	231	19	2	19	5	47	6	47	94
	648	252	900			2510	339	100	360	101				

LT. COL. H. L. GILCHRIST
MED. CORPS U. S. A.

Chart giving summary of 900 cases treated with chlorine gas at Washington, D. C., showing diseases, number of each, treatments, Results—Percentages.

recovery. One hundred cases were discharged unimproved; these, for the most part, were patients suffering from old chronic conditions of long standing and for which chlorine seemed to have no effect. In many instances these cases were suffering from conditions of twenty to thirty years duration.

One hundred and one cases appear in the unknown column for the reason that the patients disappeared before their records were completed, and in calculating percentages they are not included. In conducting this work, no attempt was made to make physical examinations, nor were any laboratory tests utilized. In all cases the patients came with their own diagnosis; the results of their treatment were obtained likewise.

While no encouragement has ever been given patients suffering from bronchial asthma and hay fever, yet these cases are permitted to take the

treatment. In the former some very favorable results have been recorded.

CONCENTRATION AND DOSAGE OF CHLORINE GAS

Referring once again to our early writer on this subject, Dr. Wallace states:

"When it is considered necessary to conjoin with the general application of chlorine, the partial application of this gas in a dilute state (and this will in general be the case), it should be done while the patient sits surrounded by the chlorine in the cabinet.

"There is as great variety in respect to the length of time that the patient should remain in the cabinet, and the temperature at which the gas should be used, as there is in respect to the quantity of chlorine required. It is, therefore, equally impossible to lay down any very accurate rule respecting them. I have always consulted

the patient's feelings; and have found that, while some would not wish to remain in the cabinet longer than fifteen minutes, others have not felt inclined to come out for an hour.

"Chlorine gas should always be in such quantities as to excite the peculiar sensations which arise from its employment. These sensations will afford the best rule for the regulation of our conduct; and it will be found that very different quantities of chlorine will be necessary to produce them, arising from the circumstances above mentioned."

The experience of the speaker concerning the required concentration of chlorine gas, for the successful treatment of patients in chambers is practically the same as expressed by Dr. Wallace in his splendid article written a century ago. Dr. Wallace found at that time no set rule could be given regulating the concentration of gas which would meet all requirements. The speaker today has realized this same condition, and has found, after many experiments along these lines, that there can be no set rule laid down governing the actual amount of gas required in a new chamber for the successful treatment. He has further found that the only way of ascertaining this important matter is by the actual standardization of each place to be used. A practical method of accomplishing this is as follows:

After the chamber is ready for receiving patients, the operator enters and notes the temperature. He then allows the chlorine gas from the ejector to gradually enter into the chamber, agitated by a small electric fan, until a slight odor of the gas can be detected in all parts of the enclosure. The amount of gas required to produce this condition should be carefully noted. He then notes the amount of automatic seepage of gas required to keep this concentration constant during the entire hour, which should also be carefully recorded. If possible, these tests should be made several times, and with different number of persons in the chamber, for it has been found that for each additional person in the chamber an increased amount of gas must be added. These tests should be repeated and the average amount of gas required taken as a standard.

While it is realized that a constant concentration of chlorine gas in exact proportions in cham-

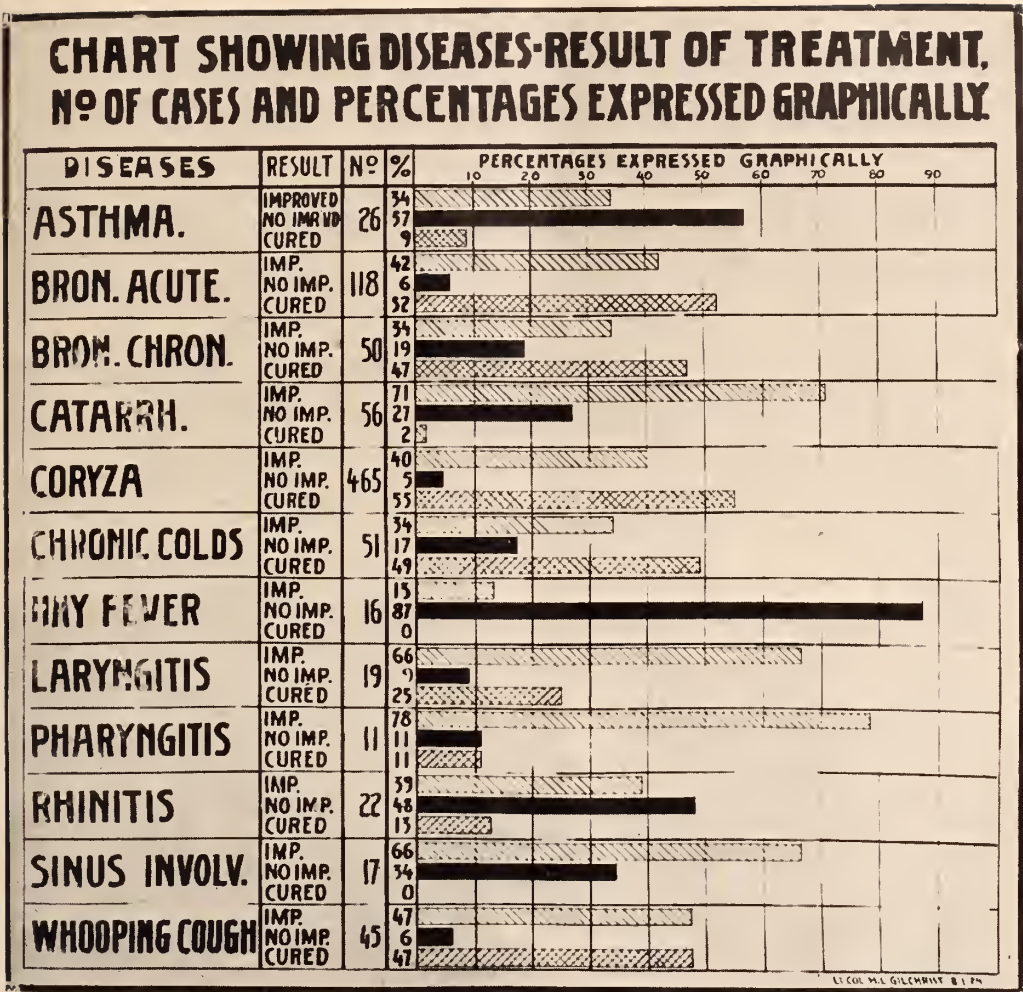
bers is most desirable, yet there is no absolute method of accomplishing this, for the reason that there are too many elements entering into it which render it a physical impossibility. Among these elements may be mentioned the following:

- (1) The hypersusceptibility of some individuals to chlorine gas.
- (2) Constant changing of temperature in chamber.
- (3) The absorption qualities of the interior of the chamber or room.
- (4) The absorption qualities of the clothing worn by the patient.
- (5) Climatic conditions.
- (6) The condition of the patient.

All of these conditions, which have a direct influence upon the concentration and the therapeutic dosage of chlorine gas in chambers, must, therefore, be considered.

The walls of all gas chambers should be impervious to the action of chlorine gas. The chambers should be as nearly air-tight as possible, but provision should always be made for a slight intake of fresh air and the exit of the foul air. The use of beaver board partitions is not advisable, but if this material is used it should be covered with several coats of white lead and oil paint. Water colors should never be used for the interior decoration, for the reason that this form of coating absorbs large amounts of gas.

In using the chlorine treatment, every effort should be made to keep the gas at a constant concentration. As stated before, each case must be treated solely upon its merits, and every chamber or room used for the purpose should be carefully standardized before being utilized for treatment. It is a safe rule to follow, that any amount of gas which can be detected by the odor, and which, after an hour's exposure, produces to the individual so exposed a slight irritation in the back of the throat or a slight burning of the eyes, may be considered a safe concentration for general usage. If, on the other hand, the gas produces to the individual exposed an irritation so severe as to cause hacking and coughing, it should be weakened, because these symptoms indicate that the concentration for the particular individual is too strong.



AN APPARATUS FOR THE ADMINISTRATION OF CHLORINE

The success of the administration of chlorine gas in the treatment of diseases depends, to a large extent, on the kind of apparatus used. There are several elements entering into this important procedure which, if not fulfilled, may be the cause of entire failure.

Any apparatus capable of obtaining successful results must be so constructed that the exact amount of gas to be used can be seen and known definitely before any attempt is made for its deliverance to the patient. This is very important. It must be simple in construction, safe, durable, easy to operate, and readily transportable. It should be complete in itself and independent from any outside influence. It should be so constructed that the gas can be automatically and continuously ejected in measured minute quantities, thereby insuring a constant flow of pure gas to

replace that absorbed by the patients and their surroundings.

THE USE OF CHLORINE IN THE TREATMENT OF ANIMALS

Since chlorine gas has proved so beneficial in the treatment of human beings, it has also been used by the veterinarians of our army in the treatment of animals. The speaker knows of no better way to present this matter to you than by quoting from the most excellent report on the subject by Lieutenants C. S. Williams and F. H. Woodruff of the Veterinary Corps of the Army. This report covers the use of chlorine gas in the treatment of influenza among animals at Fort Hoyle, Maryland. Forty-one animals were treated; twenty-one made complete recoveries after the first treatment and it only required five additional treatments, covering a period of eight days, to cure the remainder.

The chlorine treatment has also been used quite extensively in the city of Washington by different veterinarians in the treatment of distemper in dogs. It has proved very satisfactory.

DANGERS IN USING CHLORINE GAS

The dangers associated with chlorine gas have been greatly magnified, not alone by the laity; but also by members of the medical profession. Although chlorine gas was used extensively during the war as a weapon of offense, yet, out of one thousand eight hundred forty-three casualties in our army resulting from its use, but seven, or about one-third of one per cent, were fatal. Since the chlorine investigation was begun, over a year and a half ago, by the medical officers of the Chemical Warfare Service, more than three thousand five hundred persons have been treated in government institutions by this method. In addition, many have since been treated in the offices of private physicians, yet not a single instance is known of a bad result.

The speaker has also communicated with the leading chemical manufacturers in the country relative to the subject, and he has visited several of their plants to ascertain the effects of chlorine gas on the employees. In some of these establishments persons were interviewed who had been working with this gas for long periods and who, at different times, were exposed to heavy concentrations, yet, in no cases were any bad effects reported.

CONCLUSIONS

1. The chlorine gas treatment is not a cure for all respiratory ailments.
2. It has a wonderful field of usefulness; but it has its limitations.
3. The beneficial qualities of this method of treatment depend upon its germicidal action on the lining membranes of the upper respiratory tract.
4. It stimulates the flow of lymph and acts as a cleanser of the mucous surfaces. It causes a dilatation of the capillaries, thereby producing a general hyperaemia of the affected membranes.
5. The degree of infection caused by organisms will govern, to a certain extent, the length of treatment required to produce relief.
6. The aim in using chlorine gas as a prophylactic is to purify the atmosphere we breathe,

thereby rendering it sterile in much the same manner as the water supplies of our cities and towns are purified, both being accomplished by the use of chlorine.

7. Chlorine treatment should be handled by physicians only. It has a curative value in common colds, whooping cough, influenza and bronchitis; it is well worth a trial in bronchial-asthmatic cases.

8. It is very important that the gas be given in sufficient strength. If too weak, it will not produce the desired effects. There is practically no danger whatever in any reasonable dose.

In parting, I know of no better message to leave with you than the one our distinguished brother physician of a century ago left to his colleagues of that period, when he said:

"I use chlorine, and I recommend a trial of it on general principles; and, if employed on such principles, I assert that it will be found a most valuable agent in the practice of medicine."

DISCUSSION

DR. A. E. RECTOR, Appleton: I think this has been a very interesting and instructive discussion to us. I move the Society extend a rising vote of thanks to Colonel Gilchrist for coming to us.

* * * The motion was seconded variously and carried unanimously by a rising vote * * * (Applause).

PRESIDENT SLEYSER: Gentlemen, discussion of this paper will be opened by Colonel Gilbert E. Seaman, of Milwaukee.

DR. SEAMAN: Mr. President, it has been a privilege to listen to this very practical paper by Colonel Gilchrist. I had the opportunity of coming in contact with some of the observations concerning chlorine gas during the war and I had the privilege of seeing some of the work of Colonel Gilchrist in February of this year. I have been interested in the subject. It is a subject that from the standpoint of preventive medicine, it seems to me, is of great importance. There are a good many unsolved problems in preventive medicine and not the least of them in connection with the respiratory diseases. The chapter on respiratory diseases during the war was not one with which we could point with a very great deal of satisfaction.

It is true, as Dr. Gilchrist has said, that the Army at the front did not suffer from respiratory diseases as much as the Army in the rear or at home or as the civil population. Whether or not the fact that those men were subjected frequently to the action of chlorine prevented those diseases is a question to be determined.

They say there is nothing new under the sun, and Dr. Gilchrist has told you of the observations of Dr. Wallace of a hundred years ago. It is also recorded that

Labarraque, a French physician and chemist, suggested the use of chlorine, and, of course, you are all familiar with the use of the chlorides as a germicide, a deodorant, under the name of Labarraque's solution.

In 1833, I think it was, (a fact recently called to our attention by Dr. O'Malley in the Journal of the American Medical Association) a Dr. Bourgeois writes in the Transactions Medicales of the use of chlorine, and particularly of his observation that people working where they were subjected to the action of chlorine in bleaching establishments, or even those suffering from tuberculosis, were greatly relieved apparently from the action of the chlorine.

In 1915 or 1916, Küster and others in Germany used chlorine to treat the carriers of the meningococcus and diphtheria carriers with good reported results. Of course, we are familiar with the action of chlorine in aqueous solutions and the hyperchlorites were largely used, at least in the forces with which I had something to do, to the exclusion of practically everything else in treating diphtheria carriers and with most excellent results. I have had that statement questioned, and laboratory men have questioned it, but I do not always get discouraged on being questioned by laboratory men.

The fact remains that we had in France large epidemics of diphtheria and that we handled the diphtheria carriers by treatment with hyperchlorites in the form of hypochlorite, and we were checked by the laboratory men. We got rid of our diphtheria carriers in a very short period of time.

Now the group of diseases known as respiratory diseases, those spoken of by Colonel Gilchrist, are responsible for a large amount of more serious morbidity and for a large amount of mortality. If this remedy bears out its early promise it seems to me that it is incumbent upon the medical profession not only to interest themselves in it but to see to it that it is properly used.

I have used the Gilchrist apparatus. We have had it in operation for six or seven weeks. We have used it in a large variety of cases. There is no question in our minds as to its value in acute colds. There is no question as to its value in certain chronic conditions of the upper respiratory tract. There is no theory upon which one would come to the conclusion that such a remedy would be of value in hay fever, for instance, or even in asthma excepting comparatively few cases, it seems to me, merely those cases which may be reached by the use of a germicide such as chlorine gas is when used in this way.

The observation at the Edgewood Arsenal during the war (Colonel Gilchrist alluded to it) was a very interesting one. It was noted that those employees and those troops on duty at the Edgewood Arsenal who were in contact with chlorine, the manufacture of chlorine gas, were not afflicted to anywhere near the same extent with the influenza and furnished the hospital very few cases.

Chlorine gas was used at Camp Pike, one of the cantonments during the war, with excellent reported results.

Dr. Gilchrist refers to its use in the treatment of in-

fluenza in horses. I am informed that that observation was also made during the war. I have forgotten the detail but the story that General Fries tells in relation to its action in horses is a very interesting one. That fact is perhaps to be taken with less skepticism than the statement that a person suffering, we will say, from asthma has been relieved.

Chlorine is the basis of all the lethal gasses that were used in the war. We heard a great deal of the use of gasses. I saw a large number of gas cases. I saw a considerable number of gas cases in the early period of the participation of the American Army. The first attack that was made upon the second American Division resulted in deaths for the reason that the protection against gas had not been developed and the gas discipline had not been developed so that particularly the Marine contingent of the second American Division up near Verdun early in 1918 suffered quite severely. But we had large number of cases of men who were gassed more or less severely and practically no deaths, as Colonel Gilchrist says. In the 32nd Division where we had 14,000 casualties with the usual proportion of gas casualties, we had to my knowledge only one death upon the field from gas.

Chlorine gas is not as dangerous as it is reputed to be and used for therapeutic purposes is not at all dangerous, as Colonel Gilchrist said, because the lethal dose, or the danger point of chlorine gas may be one hundred times or two hundred times as great as that recommended and that which has been used.

Now Colonel Gilchrist's paper is decidedly a practical one. This practical work, of course, will be checked by the scientific work of the close observer, the laboratory man. If the medical profession will accept what seems to be a real contribution to the handling of these common colds, these respiratory infections, and will guide it so that it will be properly used, it seems to me that it will be a great step in advance. I personally feel under great obligation to Colonel Gilchrist for the privilege of listening to his paper. Thank you (Applause).

PRESIDENT SLEYSER: I am very sure Colonel Gilchrist will be only too glad to answer any questions any members might like to ask him.

DR. JOSEPH SMITH, Wausau: Mr. Chairman, I would like to ask if the chlorine in the concentration used in these treatments has any bleaching effect. I am thinking of the damage that might be done to the patient's clothing, etc., during the treatment.

DR. ANDREWS: I would like to ask what is the smallest possible room in which this may be used.

DR. HIGGINS: While the Doctor is answering questions, I am sure we would all like to know who manufactures his outfit.

By way of discussion I feel that a history of the case and nasal examination will be of great help in making deductions from a series of treatments. As Dr. Gilchrist mentioned it would be folly to expect relief from nasal stenosis in a person with complete pathological obstruction from a badly deviated septum.

It was very generous of Colonel Gilchrist to leave Washington and come here. I am sure that he has sensed the interest and appreciation of this large audience in his thorough and masterly presentation of his interesting observations.

PRESIDENT SLEYSER: Colonel Gilchrist, will you answer the questions, please?

LT. COL. GILCHRIST: Now as to bleaching effect on fabrics or clothing. In some very heavy concentrations I have noticed my jewelry has been tarnished. The ordinary concentration has no effect at all on metals of any kind. Of course concentrations ten or fifteen minutes stronger will tarnish metals and jewelry.

The doctor over her asked about the size of the room. The smaller the room, the better. Don't build a great big chamber, say large enough to accommodate two persons comfortably. The smaller the cubic contents, the better. Of course, if you are going to treat seven at a time, it will be necessary to increase the size of the chamber.

One point I failed to bring out about the concentration. Each additional individual in a chamber, will require 20 cubic centimeters more gas per hour. In the chamber established in the Chemical Warfare Service it requires 150 cubic centimeters of gas to give the initial concentration and for one person will require 420 c.c.'s for the hour, but for ten people it will require 600 c.c.'s for the hour. There are 750 cubic feet of air space in that chamber.

Another thing, if the day is hot and the patients are perspiring freely, I have thrown in as much as 700 c.c.'s almost a cubic centimeter for a cubic foot of air space. The moisture takes up a tremendous amount of

chlorine. If the day is cool the gas can be decreased. All of these points must be worked out by the physicians in standardizing their chambers. I have tried several rooms in the Munitions Building having the same cubic contents and I find in standardization there is a difference of 150 cubic centimeters per hour to give the concentration required.

As for the apparatus, it is turned out by the National Research Laboratories in the Westinghouse Building, Pittsburgh. It is the one that is used entirely by me in my work.

The question has been asked how long one of those tubes will last. One of those tubes will last me a week. What does that mean? It means that I am throwing in 600 cubic centimeters of gas five times at a minimum; six times five is thirty, 3,000 cubic centimeters of gas. Multiply by six and that gives you about 18,000 cubic centimeters of gas. A tube that will last me for one week, from nine o'clock on Monday morning up until Saturday.

QUESTION: May I ask if the chamber is necessary? Why not have a cabinet with a breathing mouthpiece?

LT. COL. GILCHRIST: You can't treat whooping cough in a child with a mouthpiece. It is a difficult thing if you try to cover up the face for an hour. I have obtained splendid results by allowing the chlorine to drip down. I was treating a congressman and he discovered the idea of scooping up chlorine by the boxful, it being three times heavier than air and breathed out of the box. He said, "If some of my friends could see me doing this, it would be goodbye to my political career. They would think I am ready for the insane asylum."

Medical Examiners License Twenty-two; Enact Strict Rules Governing Applications of Aliens

Twenty-two applicants were granted a license to practice in Wisconsin through reciprocity proceedings by the State Board of Medical Examiners in a special meeting held at Madison on Wednesday, September 24th. The board also enacted strict rules to prevent fraud or deceit in applications by aliens for licenses. The following applicants were granted licenses by reciprocity:

The Board acted favorably upon the Reciprocity Agreement submitted by Montana which makes thirty-five states with whom Wisconsin now reciprocates on the basis of written examination. The Board also raised its requirements regarding the reciprocal relations with such states as require a practical and those that require two years' practice so that Wisconsin will now require a practical of all applicants receiving reciprocity from Minnesota, Illinois, North Dakota, and Washington and

a two years' practice of all applicants receiving reciprocity from states which impose this requirement.

"Owing to the large number of aliens," said Dr. R. E. Flynn, Secretary, "making application for examination for licensure in our state the following requirements were made rulings of our Board:

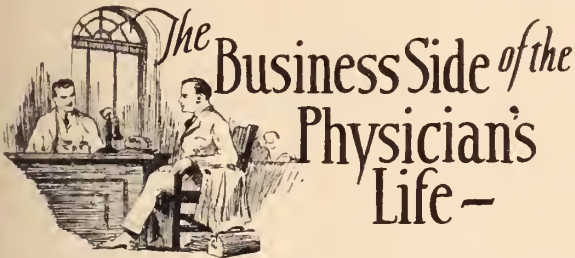
"1. That the examinations be conducted only in the English language.

"2. That no foreigner be admitted to the examination until all items in regard to both preliminary and professional education are verified by official word received directly from the foreign university from which he claims to have graduated.

"3. That through photographs, endorsements and other means of identification it is proved with-

out doubt that the man who appears before your Board is the individual who actually took the work and completed the course at the foreign medical school from which he claims to have graduated."

Name	Address	Reciprocity from:
1. Bigler, John A.	Chicago, Ill.	Illinois
2. Campbell, Daniel R.	Bagley, Minn.	Minnesota
3. Byrd, T. Luther	Milwaukee, Wis.	Georgia
4. Barlow, R. A.	Madison, Wis.	Illinois
5. French, Merle R.	Milwaukee, Wis.	Iowa
6. Frenzel, Walter C.	Wausau, Wis.	Illinois
7. Hager, Benjamin H.	Madison, Wis.	Minnesota
8. Hedblom, Carl A.	Madison, Wis.	Minnesota
9. Krembs, Ferdinand R.	Stevens Point, Wis.	Illinois
10. Krohn, Irwin K.	Black River Falls, Wis.	Colorado
11. Lowe, John Wm.	Madison, Wis.	Illinois
12. McLoone, James Egan	La Crosse, Wis.	Illinois
13. Nebel, Harold	New York City	New York
14. Pike, Charles H.	Niagara, Wis.	Illinois
15. Pollard, John D.	Chicago, Ill.	Illinois
16. Sisk, Joe Newton	Madison, Wis.	Texas
17. Smith, Woodruff	Nahma, Mich.	Nat. Bd. of Med. Exam.
18. Swarz, George	Chicago, Ill.	Illinois
19. Wood, C. A.	Chicago, Ill.	Illinois
20. Lambert, Joseph W.	Des Plaines, Ill.	Illinois
21. Carlisle, Vernon R.	Chicago, Ill.	
22. Robbins, James M.	Milwaukee, Wis.	



Trunks—trunks—boxes—and then more trunks. That is the sight that meets your eye these days when you get off the train at Madison. The University has opened.

You walk down State Street and see the young people everywhere with new dresses, new suits, or the carefully studied but expensive outing raiment that is found in a college town or in Kollege Kut Klothes advertisements. Yes, you know you are in a college town.

And if the contagion of youth does not immediately enter your veins you may subconsciously wonder how many "Dad's" and how many "Mumsies" are making the old suits do another six months so that all this may be possible. We all want that boy or girl to have an equal opportunity with any other boy or girl and these days that seems to mean a university education. But one wonders if the boys and girls realize just how much of a sacrifice it means to the folks back home.

All our investments are not on paper, however, and sending the boy to college is an investment. But it is an investment that requires a very considerable amount of ready capital to handle. It costs money to send the boy or girl to the University these days. It isn't so much the tuition—its the upkeep.

If you and I meet that expense when the bills come in it will be found mighty heavy in most cases—in some it will be found prohibitive. And so the point of this little theme—why not anticipate that need now so that we will be able to swing the deal when it comes time.

It doesn't take a very large sum each year to accumulate the capital needed for the four years at school. But aside from the pure business side, I wonder if this saving year by year will not accomplish something more than a grand total. When Charlie or Susan sees Dad make the old suit do another six months so that something can be added to their education fund, will they not begin to realize that a University education is an opportunity and not a take-it-for-fun-and-granted affair?

Your boy or your girl sees something added each year. It is "his" account or "her" account. Sending them through college does mean a sacrifice for a good many of us. Why hide that fact.

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"LET GEORGE DO IT."

Under this head we list each month definite offers of service available to our readers—the members of the State Medical Society of Wisconsin. Additions will be made from month to month but if you have a need not covered here your Secretary-Managing Editor will do his best to fill your needs. Address J. G. Crownhart, 558 Jefferson St., Milwaukee.

1. **PACKAGE LIBRARIES** are now available on Cancer, Schiek Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, and Control of Communicable Diseases. Address Package Library Dep't., Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. **MEDICAL BOOKS** will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. **PHYSICIANS' EXCHANGE COLUMN** is open to all members without charge.

4. **NEW SCIENTIFIC PUBLICATIONS** listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. **STATE LAWS** and departmental rulings can be secured through the Secretary's office.

6. **LEGAL ADVICE** upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

EDITORIALS

AT our recent annual meeting our Society declared it to be a duty of physicians to more fully advise the laity on questions of public health and how it may best be safeguarded. Our Society declared that physicians should make every effort to make available to those who must pass upon these questions, known facts and reliable information pertaining to them.

Here is a duty that is yours in a personal sense as well as "ours." In every part of the state laymen have been nominated for the one hundred and thirty-three seats in our legislature. Only two physicians will be members of that body.

These laymen, nominees for a state office, will welcome a personal visit with you as individuals. Call on your nominee this evening; give him an understanding of the fundamental problems as you see them with your scientific training and experience; assure him of your personal willingness to be of this service in making information available to him. Do this and you will discharge an unselfish duty for it is through the members of the legislature that the people are served.

If you put this off it will not be done. Make your call this evening.

THE TRI-STATE MEETING

THE annual post graduate assembly of the Tri-State District Medical Association is to be held in Milwaukee the last week of this month.

Here is a scientific program for five full days. Many of our members will attend this meeting and because of that heavy program we offer a suggestion. Plan in advance which papers you especially desire to hear, take your pocket notebook with you and jot down the salient points on those papers, and then when you go home you will take something with you. He who tries to hear all, relying upon his memory, will have nothing clearly.

A RECOGNITION

IN THESE days of politics, elections and speeches it is refreshing to find a platform statement that says something. This Journal takes no partisan stand in politics but we will always commend, regardless of party affiliations, those who promote the application of scientific medicine to the fields of public health. We feel thoroughly justified, therefore, in calling the attention of our readers to the Public Health plank of the Republican Party in this state. Incidentally, this was the only plank to be found in all four platforms.

"We favor wise legislation for the better protection of health. The advancement of well-established methods of sanitation, public hygiene and of scientific means for the prevention and control of disease is a most economic investment for the state."

We've no doubt that if faced with the question the platform drafters of the other three parties would say that they no less than the Republicans, favored "wise legislation for the better protection of health," but that it was crowded out by space limitations. And that's just the trouble with so much that has to do with social welfare projects. They are so obvious that it seems trite to reaffirm belief in them, or to practice them promptly and publicly.

AN APPEAL AND AN ANSWER

About two weeks ago the writer received the following letter:

"Dear Doctor:

I fear that I may be a bit presumptuous in writing to you, but the problem in question has been in my mind so long and is disturbing me so much that I just must appeal to someone for help. The question that I would like to have answered

is this, "Why are so many patients sent to the sanatorium when all chances for recovery have passed?" During the past two weeks six of our patients died, not one of whom had a chance when admitted. Three of these patients were here less than one month.

I appreciate of course that many patients do not seek medical aid until too late, but on the other hand, our records seem to show that quite a number of the patients were under a physician's care for months and sometimes years before making application for admission to the sanatorium. Do the physicians in general have any definite or concrete objection to sanatorium treatment, and if so, what is it? Or is it that they are not sufficiently interested in their patients' welfare?

I am wondering if some of these questions might not well be brought up at the County Medical Meetings or published in the Medical Journal, and in that way bring the value of sanatorium treatment in early cases to the attention of the physicians.

While this may seem like a direct appeal for help from _____ sanatorium, it is nevertheless meant for all the county sanatoriums in the state—because I know that the superintendents of some of the other institutions are struggling with the same problems.

Thanking you in advance for any suggestions or assistance you may be able to give me,

Yours very truly."

As a result of this letter several hours were spent on an article for the Wisconsin State Medical Journal appealing to the medical profession of Wisconsin for earlier sanatorium treatment. Two days ago the following letter was handed to me. This letter states the ease of the patient so much better than I could that my article went into the waste basket. Here is the letter:

"Dear Miss _____:

I want to tell you what I have been trying to do with that ease I sent down to you for examination. I am referring to Herman Smith.

After getting your report, I went over to the Smith home and had a long and interesting talk with his father. The result of this conversation was that father and mother both were satisfied that the best thing to do for their son was to send him to the sanatorium for proper treatment. On the following day I had an interview with the

boy. At that time he was perfectly willing to go to the sanatorium, apparently having been convinced of the importance of early treatment.

Knowing what the advice of the family physician would be I congratulated myself on the splendid progress made. I purposely, however, kept the boy away from his doctor until I could see him (the doctor) myself and have him go over your report carefully. At this interview I found that which I had expected, the stumbling block. The interview finished with the doctor saying, "Well, I will leave it to the boy to decide for himself." Just imagine a family physician taking such an attitude. I wonder whether the same doctor would refrain from using diphtheria antitoxins because the child objected to the prick of the needle! People look to the family doctor for advice and expect it. Say Miss ——— I would like to have told this doctor just what I thought of him. *Such men are not square with the great profession which they represent or the people who put their trust in them.*

Well the boy went to his family physician and when he came to my office on the following day I saw the verdict written on his face. He had changed his mind and would not go to the sanatorium. His own family physician had unfortunately convinced the boy to remain home.

I am fully convinced by Dr. ——— report that a few months at the sanatorium would have meant much for the lad's future. I had already been to ——— Sanatorium and arranged for a bed, so you can understand how mad a person would be after the progress made with the family. I'm not yet giving this case up.

Yours very truly."

If this letter is not a good answer to the superintendent's appeal, I'll eat my hat.—Oscar Lotz.

Editor's Note—Perhaps this belongs in the Correspondence column—but does it?

Dermatosis From Fur.—Reports have been published of persons who have suffered severe eruptions and irritations of the skin following the wearing of furs. Investigation has shown that these disturbances are caused by paraphenyldiamin which is used to dye furs black and by quinone, an oxidation product of paraphenyldiamin which gives a brown color. The untoward effects may be prevented largely by extreme care in the finishing and dying processes with special attention to remove all excess dye, and particularly traces of quinone from the fur. (Journal A. M. A., January 26).

THE JOURNAL CLINIC

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TWO CASES OF SUBACUTE BACTERIAL ENDOCARDITIS, FROM MILWAUKEE COUNTY HOSPITAL,

BY F. D. MURPHY, M.D., AND L. F. DUGAN, M.D.

Subacute bacterial endocarditis, though not an exceedingly rare disease, always attracts a good deal of attention from the staff. Two illustrative cases came into this hospital during the past summer; an abstract of the histories and progress notes is presented.

CASE I

HISTORY

F. H., a white male, laborer, aged 42, entered the Milwaukee County Hospital on June 7, 1924, because of pain in the knees and legs.

The Family History was negative.

Past History.

With the exception of measles at the age of 9, he has been always in good health. He never had joint diseases, and denies having had tonsillitis.

Present Complaint.

The present trouble dates back to the first week in March, 1924. At that time he had an attack of what he called grip, from which he never fully recovered. The attack was characterized by pains all over the body, a dull headache, which came and went, and a feeling of general depression. There were no chills or fever, but he had drenching sweats. After a few weeks the headaches and pains gradually subsided but the weakness and depressed feeling persisted. During the latter half of March and April, he tried to work but was incapacitated because of weakness. The pains in the legs, which was the entrance complaint, began during the last few weeks of May, 1924. He has lost no weight; the present weight, 150 pounds, being his average.

Physical Examination.

Physical examination revealed a well developed man, who did not appear to be very sick; there was however a marked pallor present. The eyes were normal; no jaundice or petechiae were present. The nose, throat, and ears were negative. The chest was negative on inspection; both sides moved freely on respiration.

The apex beat was seen in the fifth intercostal space inside the nipple line. On further examination the size of the heart was found to be normal. A thrill systolic in time was felt in the second intercostal space to the left of the sternum. A loud, rasping systolic murmur was heard in the same place; it was transmitted, with great clearness, to the large neck vessels. The aortic second was gone. The pulmonic second was present.

No other murmurs were heard. The rate was normal and there were no irregularities in the rhythm. Examination of the lungs showed no consolidations and no indications of tuberculosis or infarcts. The abdomen was practically negative. The spleen was barely felt below the costal margin; the liver was not palpable. Examination of the joints of the body revealed no evidence of disease. The knee joints were specially examined. No redness, tenderness, swelling, local heat, or pain on passive motion were elicited. The leucocyte count was 5400. The differential count showed: polymorphonuclear neutrophils 73 per cent; lymphocytes small 14 per cent, large 6 per cent; endothelials 4 per cent; eosinophils 2 per cent; myelocytes 1 per cent. The platelets appeared normal in number, size and appearance. The erythrocytes were pale, and some poikilocytosis was present. The erythrocyte count was 2,690,000. The hemoglobin (Dare) was 60 per cent. Fluoroscopy of the chest substantiated the physical finding; no enlargement of the heart or aorta were seen, and no pericardial fluid was made out. Later stereoscopic pictures did not change the interpretation.

The blood Wassermann on several occasions was negative. The blood pressure was 112/70/42. Urine analysis showed normal findings.

Progress Notes.

The fever has been the Pel-Ebstein type, ranging from 98 degrees in the morning to 102 degrees in the evening. A few days after the patient entered the hospital a blood culture was taken which, after 24 hours, revealed the presence of *Streptococcus viridans*. On June 20th, another blood culture showed *Streptococcus viridans*; approximately 124 colonies per 1 c.c. of blood.

On June 24, (the patient at this date had been in the hospital two weeks and had declined rapidly) it was decided to give him mercurochrome intravenously. He received 15 c.c. of 1 per cent solution on June 26. He developed a moderate mercurial reaction, following which he seemed to improve for a few days and a blood culture showed 90 colonies per 1 c.c. of blood. We became a little hopeful over his condition and on July 12 gave him 20 c.c. of a 1 per cent solution of mercurochrome. This was followed by a mild mercurial reaction. He felt better after this treatment and the blood cultures showed a drop to 50 colonies per 1 c.c. of blood.

On July 15, another 15 c.c. of 1 per cent mercurochrome were given intravenously, following which a severe mercurial reaction developed. Instead of improving the patient declined rapidly; the R. B. C. dropped to 2,110,444; the W. B. C. to 4,800. On July 20, patient much worse; spleen now easily palpable; no petechiae; pallor extreme. The heart findings did not change; he was very weak.

On August 4, a transfusion of 500 c.c. of blood was performed, after which the patient improved rapidly, and in a few days he looked like a new man. The blood counts came up to almost normal within 10 days; within two weeks he was walking around the ward. The blood cultures have been positive all along.

On August 22, petechial hemorrhages appeared for the

first time; the legs were covered with them and a few were seen along the costal margins.

Note.

During the past month this patient has steadily improved. He wishes to go to work as he feels that he has been cured. No one has explained to him the meaning of *Streptococcus viridans* in the blood.

CASE II

HISTORY

J. K., a white male, aged 44, was admitted to the Milwaukee County Hospital on August 14th, 1924, because of chills, fever and weakness.

The Family History was unimportant.

Past History.

He had always been in good health and denied having had any of the acute infectious diseases. He admitted, however, that he had suffered all his life from frequent attacks of tonsillitis.

Present Complaint.

About June 1, 1924, he suddenly became chilly and felt feverish. After a few days he began to have definite chills which lasted 2 to 3 hours and would recur every 3 or 4 days. He felt that he was becoming weaker every day. Sometime in the middle of July he stopped working because of weakness. The chills and fever continued until about August 1 when they went away and did not return. The prostration however continued and was enhanced by drenching sweats. He was free from pain at all times.

Physical Examination.

A glance at the patient as he lay on his back in bed was enough to convince the examiner that the patient was critically ill. The marked pallor, the exhausted, dejected appearance, the loss of expression, the tendency to sleep while being examined, all went to impress one that this illness would prove fatal. The eyes and ears were normal; the throat was reddened and the tonsils were greatly enlarged and diseased. Many teeth were devitalized and pyorrhoea was marked. The chest was well developed and the respiratory excursion was normal. Examination of the lungs brought out no evidence of serious disease; nothing in the lung findings could account for the cough. Inspection of the precordial area showed that the apex was in the fifth intercostal space, well inside the nipple line. No thrill was felt. At the mitral area a rough systolic murmur was heard. This was transmitted along the left sternal border to the junction of the 3rd rib with the sternum; here the systolic murmur was joined by a rough diastolic murmur. On moving the stethoscope to the right of the midsternal line the murmurs were barely audible. When the stethoscope was moved to the left the murmurs became very distinct, and in the 3rd intercostal space, midway between the left sternal border and the midclavicular line, the murmurs were most intense; the pulmonary second tone was taken up by the diastolic murmur. The heart rate was rapid but regular. On examining the abdomen the spleen was found to extend four fingers breadth below the costal margin; it was not hard and palpation caused great pain. The liver

was not enlarged. There was some oedema of both ankles, but no signs of joint disease. No petechial hemorrhages were present and no evidence of emboli was discernible. The B.P. was 128/80/48. The urine showed ++ albumin, many granular casts, many R. B. C. and W. B. C. The blood culture was negative; so was the widal. The leucocyte count was 12,400. The differential count was: polymorphonuclear neutrophils 66 per cent; large and small lymphocytes 28 per cent; eosinophiles 1 per cent; endothelial leucocytes 3 per cent; nucleated red cells 2 per cent. The platelets appeared normal and were not increased in number. The erythrocyte count was 2,060,000; the red cells were normal except that they were pale. The Wassermann was negative. The stereoscopic roentgenogram of the chest showed no signs of tuberculosis or infarcts.

Course of Disease.

The fever, while the patient was in the hospital, was the intermittent type; it reached 101 degrees every afternoon and went to 97 degrees in the morning. The patient never seemed to rally, and the exhaustion became more marked. Several blood cultures were made in the course of the disease and were negative. The R. B. C. and Hb. gradually sank. The spleen seemed to become larger and more tender. The heart findings remained as described. On August 28, a few days before death, petechial hemorrhages of the skin appeared for the first time. They were specially marked on the legs and chest. On August 31 the patient sank into unconsciousness and died.

AUTOPSY BY DR. H. T. KRISTJANSON

Anatomical Diagnosis.

Acute puriform pericarditis; subacute vegetative endocarditis; hypostasis of both lungs; chronic fibrous pleuritis (bilateral); healed tuberculosis of both apices; hyperemia and parenchymatous degeneration of liver, spleen and kidneys.

The body is that of a large framed but rather poorly nourished elderly white male 176 cm. in length. The pupils are equal and measure 5 mm. in diameter. Rigor mortis is marked in the extremities; post mortem lividity is well defined in the dependent parts. There are noted scattered petechial hemorrhages over the extremities and chest anteriorly.

The peritoneal cavity contains a small amount of yellow fluid in both flanks and in the pelvis. There are several discolored areas of the external surface of the small intestines. The appendix is small and is bound down by chronic fibrous adhesions below the ileo-cecal junction. The large bowel appears normal with exception of two slightly constricted portions where the lumen is much smaller than normal. The stomach is not distended and appears normal except for congestion of the mucosa. The pyloric ring is not thickened. There are fibrous adhesions between the fundus of the gall bladder and the duodenum. The foramen of Winslow is patulous.

The pleural cavities contain a small amount of yellow serous fluid. The upper lobes of both lungs are surrounded by film like fibrous adhesions. These were



A, pulmonary artery; B, papillary muscles; C, pulmonary vegetation.

however, readily separated from the chest wall. Both apices show healed tuberculosis. The dependent portions of both lower lobes show rather extensive hypostasis. The pericardial sac is distended and is filled with turbid yellowish fluid in which are floating yellowish flakes of plastic exudate. Both the pericardium and epicardium are congested and dark in color. In places they are covered with small pieces of plastic exudate. The right heart is distended with liquid and coagulated blood. The tricuspid valve shows no abnormal thickening of the leaflets. On the pulmonary valve is a partially organized vegetation, that measures 2 by .8 by .7 cm. and is attached to the middle leaflet of the valve. The mitral and aortic valve show no vegetations. There is a beginning of atheromatous change in the arch of the aorta. The myocardium is slightly opaque in appearance.

The liver is enlarged and drips blood on section. The biliary ducts contain no calculi. The bladder is small. The wall is thickened. The pancreas is apparently slightly enlarged and congested; it shows an increase in the interstitial tissue. The spleen is also very much enlarged, tense and on section drips blood from the cut surface. It measures 14 by 11 by 5 cm. The supra-renals are congested. The kidneys are enlarged, swollen and

hyperemic. The capsule strips readily. The parenchyma is gray and granular. The urinary bladder contains a small amount of urine. The prostate is palpable.

The sections from the vegetations on the pulmonary valve show that the tissue is partially organized. There are many recently formed capillaries filled with blood. Some areas show infiltration with polymuclear cells and a few fibroblasts. Other portions of these sections are made up of necrotic tissue where there were noted no cellular elements. The myocardium beneath the vegetation shows rather extensive inflammatory process, indicated by infiltration into the muscle with polymuclear and round cells. The kidney tissue shows areas of round cell infiltration and a rather well defined degeneration of parenchyma. The liver and spleen show extreme congestion with parenchymatous changes.

Sections from the pulmonary vegetations, stained for bacteria, showed Gram positive diplococci. In the pericardial exudate short chained streptococci were found.

DISCUSSION

Two cases of subacute bacterial endocarditis are reported here to show how variable the clinical course of the disease may be, and to draw attention to the involvement in one of them of the pulmonic valve alone. One case, (Case 1—F. H.) characterized by a very insidious onset, positive blood culture, and other features of the disease, had definite remissions and apparently is recovering. The other case, (Case 2—J. K.) although the blood cultures were negative, and the clinical findings warranted a diagnosis of subacute bacterial endocarditis, gradually declined and without one remission died 3 months after the attack began.

The question of proper diagnosis in Case 2 may come into the minds of some clinicians. An exact agreement as to what is meant by subacute bacterial endocarditis has not been reached, according to Clawson of Minneapolis, but most clinical writers harmonize quite well when dealing with the essential clinical features of the disease. Most writers believe that there are 5 cardinal signs of the disease.

1. Endocarditis.
2. Embolic phenomena:
 - (a) petechial hemorrhages,
 - (b) Osler's nodes,
 - (c) hemiplegia, or blocking of some vessel in one of the limbs,
 - (d) enlarged spleen (Osler).
3. Fever.
4. Anemia.

5. The presence of *Streptococcus viridans* in the blood (present in 80 per cent of cases). The cases of bacterial endocarditis which last under 6 weeks are generally called acute, those lasting longer than 6 weeks, subacute.

From the clinical side then, it seems that Cases 1 and 2 referred to fulfill the demands in most essentials. The petechial hemorrhages in Case 2 probably were not due to embolism, but it is well known that these occur in the course of subacute bacterial endocarditis without embolism.

The presence of vegetations on the pulmonic valve alone (shown on post mortem) seems rather unusual, judging from the report of 146 autopsies cited by Blumer in his article on this subject, in *Medicine*, May, 1923. There he showed that the pulmonic valve alone was involved in 4 cases out of 146 autopsies.

In Case 1 we do not feel that mercurochrome treatment yielded any beneficial results. Although various chemicals, silver compounds, salvarsan, quinine, serums, and many other preparations have been used in vain, it was difficult to become enthusiastic over mercurochrome treatment in these cases.

Sometimes the transfusion of blood has seemed to bring on favorable effects for a time, as it did in Case 1, but the final results, nevertheless, have not been encouraging.

The prognosis in subacute bacterial endocarditis is notably poor; most figures drawn from large series of cases show that 96 per cent die within a space of two years. An exception to the above figures is the report of Graham, Oille, and Detweiler, which states that 23 cases of *Streptococcus viridans* bacteremia, first described in 1915, have recovered.

SOCIETY OFFICER LEAVES STATE

Dr. S. S. Hall, after 42 years residence in Ripon, has left for Minneapolis, where he will make his home with his daughter, Miss Jane Hall. Dr. Hall will be succeeded by Dr. H. A. Schultz of Random Lake who has purchased his practice and office equipment.

Dr. Hall has always been identified as one of the pioneer professional men in Ripon and of the state. He graduated from the Harvard School of Medicine in 1867. He practiced medicine at Rosendale until 1882 when he moved to Ripon.

PREVENTIVE MEDICINE

Edited by
W. D. STOVALL, Chairman
Section on Preventive Medicine, State Medical
Society of Wisconsin

This Section is open to all members of the State Medical Society and others who wish to discuss subjects pertaining to Public Health. Original articles, and criticisms of statements appearing in this section are earnestly solicited. Questions concerning public health procedure will be answered. Address communications to Dr. W. D. Stovall, State Laboratory of Hygiene, Madison, Wis.

SOME FREQUENT NEGLECTED FACTORS IN THE HEALTH OF SCHOOL CHILDREN*

BY H. P. GREELEY, M.D.,

MADISON

Mark Twain once said: "There has been a great deal of talk about the weather; but as yet nothing has been done about it."

This I take as the text for the few remarks I have to make this afternoon. I do not wish to imply that nothing is being done for the health of school children. Great credit is due for the enormous advances that have been made and yet in the particular aspects that I am considering, all too frequently nothing is being done.

The present-day program for modern schools calls for the physical examination of school children, including dental inspection, weighing and measuring of children, instruction in diet and health habits and often hot school lunches, and routine general inspection by school nurses including visits to the homes. Within the past year compulsory physical education has been added to the list. The results of such a program have disclosed a really frightful condition among our children, 52 per cent of whom are defective, 96,000 defects among 187,000 pupils. These defects are classified as follows:

Teeth	71%
Tonsils and adenoids.....	38%
Eyes	21%
Nose	15%
Lymph nodes.....	20%
Under nutrition.....	6%
Anemia	3%
Ears	4%

The results of this program, year after year, in spite of the thousands of corrections, has, as yet, failed to reduce the amount of sickness or defects in each succeeding school enrollment.

*Read before the annual meeting of the State Conference of Social Workers.

It is, therefore, evident that important and necessary as the work is it has not yet hit at the foundations of poor health. In order to remove the foundation of poor health we must build the foundations of good health.

What are these foundations?

1. Good heredity.
2. Good nutrition.
3. Absence of infection through sanitation in its broadest sense.

Let us consider these three fundamental requirements and see what our school system is doing to supply them.

1. Good Heredity. Obviously the school system cannot supply this factor. What it *can* and *must* do, however, is to furnish in the secondary schools, in normal schools and in college, the fundamental facts of heredity. This knowledge is at hand and is of immense practical importance though it is an unpopular and, to many people, still a forbidden field. It is not my purpose to dwell upon this subject; but I will say that it doesn't mean at all what people who disapprove of it think it does.

Our second requirement for the prevention of disease is good nutrition. This depends upon a knowledge of the proper kind and quantity of food, proper food habits and last, and most important, a good appetite. For all the knowledge about a balanced diet and all the food will not produce a healthy child who has no appetite for it. There is no parent today, anywhere, who has not this knowledge at hand; but what are we doing for the child's appetite? There are four fundamental requirements for a good appetite:

1. Fresh air.
2. Sunlight.
3. Exercise.
4. Avoidance of fatigue.

Where do our schools stand here?

Fresh air is practically unknown inside a school-house from the first grade to the senior in college. Our children breathe dry, overheated, and consequently bad air during the greater part of the day during the school term; stifling and strangling both their mental and physical capacities. Our children enter school in the fall, vigorous and alert and well. In the first week of school colds are exchanged and the crop of illness begins, coughs, earaches, balky stomachs,

jumpy nerves, bad tempers and bad discipline. As a result many succumb, the rest drag out a losing race and leave school pale and spiritless in the spring.

In our rural schools children arriving at nine o'clock in the morning often are not permitted to leave the building at recess or during the noon hour because of the difficulty of getting them attired. Yet, we stress the value of fresh air, tell the children to spend a large part of every day out doors and to keep their windows open at night. Why shouldn't we use the laboratory method and give them a little of this valuable commodity, fresh air?

What open air school rooms do for children is not a matter of speculation. It will make sickly children well and yet there are only eleven open air rooms in the state of Wisconsin outside of Milwaukee.

If these accommodated four hundred children there are still some 480,000 children who are accumulating disease and sickness against the four hundred getting rid of them.

How the shades of our ancestors would shudder if they realized that the only indoor fresh air their descendants got was night air, that pestilential bearer of disease!

Do you realize that it is against the ruling of the Industrial Commission to give children fresh air? School buildings must be equipped with a ventilating system that is both frightfully expensive in operation and utterly unsatisfactory. Systems which filter, moisten, and reheat air in a closed circuit are in vogue, others less satisfactory must be in use, whereas direct ventilation, by open windows or cloth screens, is 100 per cent efficient, healthy and cheap—saving both coal and power bills. The remedy for this obvious iniquity, which is the real cause for my text, is an awakened public demand and an altered state law.

Perhaps, I have said enough about fresh air. What about sunlight? Here, again, children are told to spend a large part of the day out doors and in winter six out of seven of the valuable hours of sunlight are spent indoors, and the seventh in bolting a dinner in order to get back in the shade of an overheated schoolroom. Here, again, the state law, in the shape of the manual, forbids any healthier regime for the curriculum is crammed with cast iron requirements for so

many hours of this and so many hours of that. Children must spend daily the required hours in the accumulation of facts and the acquirement of disease in order to enter the secondary schools without an examination.

Our third requirement for a good appetite is exercise. The recent physical education requirement is a most excellent but totally inadequate start in the right direction. Again, because of the manual, an adequate amount of physical education is prohibited. Recently a prominent educator in the East said to me that a more valuable education would be arrived at if children, in the mass, were sent to school to play and did their book work as individuals at home. In other words organized play taught real education, adjustment to environment, adaptation to all types of character, honesty, clean living, self-discipline, courage and self-control—none of these being taught in a classroom except by precept.

The playground movement is, however, well-organized and rapidly developing. What is needed is to weed out of the curriculum 75 per cent of the arithmetic and substitute healthful directed games.

The fourth requirement for a good appetite is avoidance of fatigue; but the school system, as I have pictured it, cannot but make children tired. It makes school teachers both sick and tired; as you know school teaching is rated by life insurance companies as a dangerous occupation, next to marble cutting and saloon keeping.

To sum up, then, the foundation of good health rests upon good nutrition and good nutrition upon a good appetite. Our school, with one hand, teaches our children how to eat, and with the other robs them of their appetite.

We have now considered two of the foundation stones of our edifice of good health. Good heredity and good nutrition. The third, absence of infection through sanitation, is the one without which our whole edifice of preventive medicine would collapse.

Schoolhouse sanitation and cleanliness in its widest sense are almost synonymous and mean the application of our knowledge of the infectious diseases based on the researches of Pasteur and others during the last fifty years.

First, in regard to personal cleanliness. What

do our schools do besides tell the children its value? As a laboratory of applied cleanliness the washing facilities are a joke. Of what use to tell children to be clean and allow them to be dirty? Washing facilities in schoolhouses must be adequate and they must *be used*. Clean hands kept out of dirty mouths are the best preventive of minor infections. What is done in regard to our arch enemy the filthy fly? Swat the fly is our slogan. The school, as a laboratory here, could not be improved upon. There is ample opportunity to swat the fly in our schools. Almost without exception they are unscreened during the worst fly months, September and October, and the privies are just outside the open windows in these months, for they generally are open in September.

Schoolhouse floors, especially rural, are dirty and infrequently washed. Toilet facilities are also inadequate in rural schools and hard to keep clean and sanitary. The remedy is obvious—soap and water, towels, screens, and sanitary privies.

Squeers was a brute, but his method was the laboratory method and was correct. Children learn less by precept than by practice. Organize the schools and make the children, in squads, responsible for personal cleanliness among themselves, and in and out of the building.

A recent report of the National Council of Education states that "the country schoolhouse is the worst, the most insanitary and inadequate type of building in the whole country, including those used for domestic animals." Our national boast has always been that the first thing a new community did here was to erect the public school. This statement would indicate that the last thing we did was to tear it down and put up a new one.

I venture to say: The reduction in physical defects of school children through the application of our knowledge in regard to the wholesome effects of fresh, moist air, sunlight, exercise and cleanliness would treble the reduction of physical defects produced by all other means.

Our concrete duties are to change the state laws in regard to compulsory ventilating systems and study requirement—to insist on clean children in modern, well-equipped, sanitary buildings.

Then, and then only, the statement that was recently made to me by the dean of a neighboring state university medical school can be refuted; namely, that the main function of our public

schools is not education, but the spread of the infectious diseases.

PUBLIC HEALTH NOTES
FROM THE
STATE BOARD OF HEALTH

Sterilization of individuals other than those who are inmates of state institutions is not permitted under the terms of the sterilization law, it was advised. Enforcement of this law is under the state board of control.

Answering an eastern inquiry, the State Board stated that there is a constant increase in deaths reported from cancer in Wisconsin from year to year, due to a greater prevalence of the disease and to the fact that better diagnosis is made than formerly as a result of excellent laboratory service.

Replying to numerous inquiries as to the use of iodine among school children, the State Board advised the iodine be administered in school under a physician's direction, although generally speaking it is held safe to give it to all children from 6 to 7 years to the age of 16 to 17. "Goiters can be practically eliminated from this state by a reasonable use of the iodine treatment," the letter asserted.

Report was received of a case of glanders in a man at De Soto. The information was transmitted to the department of agriculture for cooperative assistance.

What procedure should a health officer take in recording the death of a non-resident whose ashes are sent to Wisconsin for interment? The reply was that no action is necessary. Such death certificates will have been filed in the state where death occurred.

In the case of a crippled child whose parents were alleged to deny proper treatment for the defect, a health officer was informed of the law on the subject. Parents can be cited before the county judge to show cause why the child should not be taken away and placed in the state school at Sparta. It is held just as essential to have

proper medical attention when needed as that the child be properly clothed and fed.

There was held to be little danger, generally speaking, of a patient giving whooping cough to others after six weeks from the beginning of the disease. Under the state rules, however, the patient cannot leave the premises or come in contact with the general public during the whooping stage. The home must be placarded for at least six weeks from the time the case is reported to the health officer. Children who have had the disease "should not be permitted to return to school during the whooping period."

STATE BOARD SHALL PROSECUTE

That the state board of medical examiners shall do more than just investigate complaints and that the statutes provide it shall "institute prosecutions" was the advice of Attorney General Herman L. Ekern in an opinion to Dr. R. E. Flynn, La-Crosse, Secretary of the Board. The Attorney General stated that any member of the board may sign the official complaint without liability. The opinion dated September 19th follows:

Dr. Robert E. Flynn, Secretary,
Wisconsin State Board of Medical Examiners,
La Crosse, Wisconsin.

Dear Sir:

You state that your board is constantly receiving complaints regarding men who are practicing in open violation of our medical practice act. You further state that you experience difficulty in getting any person to sign an actual complaint. You inquire whether it would be permissible for the board as a body to file the complaints or would the filing of such complaints make the members thereof individually liable.

Your duties in respect to violations of the medical practice act are contained in subd. (6) of sec. 147.01, which reads as follows:

"The board shall investigate complaints of violation of this chapter, notify prosecuting officers, institute prosecutions, and if it so direct, and the court and district attorney consent, its counsel shall assist the district attorney."

I believe that under the provisions of this section it was contemplated that your board should have more power than that merely of investigating complaints and then requesting some person to actually sign the same. The section states that your board shall "institute prosecutions." I do not find any provision in our law which would appear to justify a complaint by the Wisconsin State Board of Medical Examiners as a Board. The law appears to contemplate that criminal complaints should be signed by an individual. It would appear, however, perfectly proper for your board, after having

made an investigation of any case, to direct either the secretary or one of its members who is familiar with the matter to sign the complaint. The member signing the complaint, however, should believe in good faith that a violation of the law has been committed.

In regard to any liability which could be incurred by the members of the board, you are advised that if the board and the member signing the complaint act in good faith, there would be no liability. In order for anyone to maintain an action for malicious prosecution, two things must occur: that is, the action must have been instituted maliciously and it must also have been instituted without probable cause, as is shown by the following citations:

"Even if there was no probable cause for the prosecution but it is shown there was in fact no wrongful motive the action for malicious prosecution cannot be maintained and a verdict for the plaintiff will be set aside." 18 R. C. L. 31.

"While as the name implies malice is the root of action for malicious prosecution, malice alone, even when extreme, is not enough but want of probable cause for institution of the original proceedings must also be shown. If probable cause exists, it is an absolute protection against an action for malicious prosecution even where express malice is proved." 18 R. C. L. 33.

In this connection, I direct your attention also to subd. (4) of sec. 147.01, which reads as follows:

"The board shall employ a licensed attorney as counsel and other necessary assistants, and fix their compensation. The counsel shall attend the meetings of the board, advise the members, and assist the board generally."

In any case where your board becomes convinced that a violation of the law has occurred, you can and properly should submit the entire facts to your counsel. When this is done you would have an additional defense to any action for malicious prosecution that might be instituted. I quote from the opinion of our court in *Topolewski v. Plankinton Packing Co.*, 143 Wis. 52, in which the doctrine of advice of counsel as applied by our supreme court is set forth:

"It (our court) has upheld the rule that advice of counsel, upon a reasonably fair statement of the facts under all the circumstances, constitutes probable cause, most liberally in favor of defendants in malicious prosecutions, holding that even advice of private counsel satisfies the rule, also that 'full and fair statement of all the facts' does not require statement of all the facts discoverable, or that the informer should even make diligent inquiry to ascertain the facts. *King v. Apple River P. Co.*, 131 Wis. 575, 111 N. W. 668." P. 62.

I am, therefore, of the opinion that any member of your board acting in good faith and upon the request of the board may sign the criminal complaint without incurring liability. This would be especially true in case the signing was done upon advice of the counsel for your board.

Very truly yours,

C. A. ERIKSON,

Deputy Attorney General.

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The Wisconsin Medical Journal, Official Publication

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Sheboygan	Edmund Knauf, Sheboygan	G. J. Hildebrand, Sheboygan
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SOCIETY PROCEEDINGS

BARRON-P-W-S-B COUNTY

The members of the Barron-Polk-Washburn-Sawyer-Burnett County Medical Society met at Rice Lake, September 26th, for the last of the extension courses. Dr. R. S. Cron, Milwaukee, presented a paper, illustrated by slides, on "Plastic Surgery of the Female Pelvic Organs."

CLARK COUNTY

The Clark County Medical Society met at Colby on September 23rd. The minutes of the previous meeting were read and approved and at the business meeting Dr. H. H. Christofferson of Colby was elected president and Dr. F. P. Foley of Dorchester was elected secretary-treasurer for the ensuing year.

Dr. Harold Marsh, Madison, gave a very instructive paper on "Scarlet Fever and Immunization, Dick's Method." Dr. Joseph Smith, Wausau, district counselor, outlined the diagnosis and treatment of goiter in its several forms. Dr. Smith's paper included reports from several sources with statistical tables. The discussion was opened by Drs. Karl Doege, V. A. Mason, and H. A. Vedder of the Marshfield Clinic. F. P. F.

GREEN BAY COUNTY

The Green Bay Medical Academy of Medicine met September 10th at St. Mary's Hospital. Dr. R. M. Carter was the speaker of the evening taking as his topic "Fractures of the Lower End of the Radius."

MARINETTE-FLORENCE COUNTY

The Marinette-Florence Medical Society met at Marinette September 25. After the supper a business program was held, and Dr. Louis F. Jermain, Dean, Marquette University School of Medicine, held a clinic.

TREMPEALEAU-JACKSON-BUFFALO

The Trempealeau-Jackson-Buffalo County Medical Society met at Blair on July 7th. Dr. Edward Evans of La Crosse, District Councilor, gave an address on the subject "A Practical Talk to General Practitioners." On September 18th at Fountain City the annual meeting was held with the election of officers. Dr. H. E. Marsh, Madison, spoke on "The Diagnosis and Treatment of Scarlet Fever." Both were interesting meetings and the Society feel grateful to Dr. Evans and Dr. Marsh for their splendid addresses.—R. L. M.

WASHINGTON-OZAUKEE COUNTY

The Washington-Ozaukee County Medical Society met September 26 at Hartford Hospital, Hartford. The program consisted of a talk on "Scarlet Fever—The New Serum Treatment" by Dr. H. E. Marsh, Madison; and "Diseases of the Rectum and Anus—Their Recognition and Office Treatment," by Dr. A. H. Heidner, West Bend.—A. H. H.

WAUPACA COUNTY

The Waupaca County Medical Society held a meeting at Marion, September 18th. Dr. F. Gregory Connell of Oshkosh gave a very interesting paper on "The Diagnosis of Gastro-intestinal Disease." The talk was fol-

lowed by a very able discussion by the members. Dr. Connell closed the discussion. A vote of thanks was extended to Dr. Connell for his splendid paper. The next meeting will be held at Iola.—A. M. C.

NEWS ITEMS AND PERSONALS

The seventh biennial conference of Wisconsin health officers was held at Madison September 25th and 26th. Many municipal health problems were discussed and ways and means of promoting public health were planned. Governor Blaine addressed the conference Thursday afternoon. Papers and discussions were given by Dr. L. M. Field, Beloit; Dr. A. V. de Neveu, Rhinelander; Dr. F. B. Welch, Janesville; Dr. H. A. Ott, Dale; Dr. W. W. Bauer, Racine; Dr. E. V. Brumbaugh, Madison; Dr. I. F. Thompson, Milwaukee; Dr. H. E. Dearholt, Milwaukee; Dr. F. A. Southwick, Stevens Point; Dr. V. A. Gudex, Eau Claire and Dr. J. F. Schneider, Oshkosh. At the closing session Dr. W. D. Stovall, director of the state laboratories, spoke on state service.

Dr. Bjarne Ravn who has been practicing medicine in Minneapolis has formed a partnership with his brother Dr. E. O. Ravn, and their father Dr. M. Ravn at Merrill.

"Mental Defectives" was the subject of Dr. W. C. Clark of Janesville, who talked to the Lions Club at Stoughton. Dr. Clark served in the medical corps during the world war. He related to the club his experiences in the handling of the mental deficient soldiers in the training camp.

Dr. H. E. Dearholt, Milwaukee, of the Wisconsin Anti-Tuberculosis association, was elected president of the Mississippi Valley Anti-Tuberculosis conference at the annual meeting, Tuesday, September 18th, in Sioux Falls, S. D. He succeeds Dr. J. S. Pritchard, Battle Creek, Mich. The next meeting of the conference will be held in Lansing, Mich. Mrs. T. B. Sachs, Chicago, was elected vice-president and T. J. Werle, Lansing, secretary and treasurer.

While returning to Fond du Lac from Sheboygan and Sheboygan Falls where he had addressed committees arranging for National Defense Day programs, Dr. A. J. Pullen of Fond du Lac narrowly escaped serious injury when he was forced to drive into the ditch to avoid collision with a speeding car he met at a curve in the road. Dr. Pullen was severely shaken by the drop into the ditch.

Dr. George Thorngate, Exeland, has left for Shanghai, China. Dr. Thorngate is a medical missionary and will have charge of the hospital and patients at Liu Ho Ku, China.

Marquette University, Milwaukee, has opened a new college that will offer training for hospital executives, technicians, dietitians, social workers and other hos-

pital specialists. The college work will lead to a bachelor's degree, the school for technicians will lead to a certificate or diploma of efficiency, and graduate work will entitle the student to the master of arts degree.

Dr. J. T. Elliott, city health commissioner, who has been located at 16½ West Davenport Street, Rhineland, has moved his office to his home on 3 South Stevens Street.

Dr. R. B. Cunningham, Cadott, is an independent candidate for the state senate for the seat now held by Senator Lange.

Dr. W. S. McManus, 56, San Antonio, Texas, died September 15th, in Texas. Dr. McManus lived in Superior about fifteen years ago. He left Superior to study medicine and began his practice at Ellendale, N. D., later moving to Grand Forks and then to San Antonio. He served overseas during the late war and received the rank of major, being stationed at Brest, France. He was born in Clinton County, New York.

Dr. S. W. Forbush of Orfordville has opened a new office in Beloit. He will also retain his office at Orfordville.

The question of whether Indians on reservations in Wisconsin, who have been granted citizenship, are under federal or state control has been raised and may require action by the federal government to settle. Deputy Attorney General Erickson in an opinion to Dr. H. B. Sears, of the State Board of Health, holds that the grant of citizenship to Indians on reservations does not in itself relinquish federal control over the Indians.

The health department is seeking to determine whether an Indian on a reservation can be placed in a county poor-house or institution without authority from the government. The opinion declared that commitment to a poor-house is dependent upon the legal settlement of the Indian and that citizenship is not essential. An Indian cannot acquire a legal settlement while residing on a reservation that is not within the boundaries of a town, village or city, according to the ruling.

Dr. Joseph C. Bloodgood, formerly of Milwaukee, now residing in Baltimore, has recently had published in Ford's Dearborn Independent an article on the treatment for cancer. Dr. Bloodgood is a graduate of the University of Wisconsin.

MARRIAGES

Dr. Harold M. Coon, associate medical director at River Pines, to Miss Mary Morrissey, Joliet, Ill., on September 9th. They will reside at River Pines, Stevens Point.

DEATHS

Dr. C. D. Fenelon, 61, of Phillips, died of pernicious anemia at Weyauwega on September 4th. Dr. Fenelon was born at Weyauwega May 17, 1863. He attended the University of Wisconsin and the Rush Medical College. He taught and was principal in the schools of

Weyauwega and then took up the study of medicine and practiced at Phillips.

Dr. Fenelon was a member of the Price-Taylor County Medical Society, the State Medical Society of Wisconsin and of the American Medical Association.

Dr. Rudolph J. Gieseler died at the National Soldiers' Home, Milwaukee, September 19. Dr. Gieseler was born in Racine July 6, 1892. He was a graduate of the University of Wisconsin and Rush Medical College, Chicago, and his internship was spent at the Cincinnati General Hospital. Dr. Gieseler was a veteran of the World war, enlisting in 1918 in the Medical corps and serving thirteen months, seven of which were spent in France. He attained the rank of first lieutenant.

Dr. J. A. Mack, 73, of Madison, died September 8th at a sanitarium in Oshkosh, where he had been for several months following a stroke of paralysis. Dr. Mack was president of the Capital City bank of Madison, and had previously practiced medicine there.

Dr. E. E. Atkins, 77, of Fond du Lac, died of a paralytic stroke, September 5th at Fond du Lac. Dr. Atkins was born in 1847 in Pennsylvania. He attended Hanneman Medical college, Chicago, and practiced medicine in Hustisford, Dodge County, later moving to Fond du Lac. He was mayor of Fond du Lac in 1895. He was alderman for many years, being president of the city council and also president of the board of education.

Dr. Louis Bickford, Oshkosh, was found dead at Oshkosh September 16. Until recently Dr. Bickford was employed as assistant to Dr. Adin Sherman at the Northern Hospital for the insane. He was born at Dresden Mills, Maine.

SOCIETY RECORDS

NEW MEMBERS

Elliott, R. S., Gillett.
Witchpalek, W. W., Algoma.
Hafemeister, E. F., Waupaca.

CHANGES IN ADDRESS

Lillie, O. R., 301 Iron Bldg., Milwaukee—1110 Majestic Bldg., Milwaukee.
Weber, A. J., 1209 Grand Ave., Milwaukee—209 Grand Ave., Milwaukee.
Schoofs, O. P., Fond du Lac—829 47th St., Milwaukee.

Venning, J. R., Bagley—Ft. Atkinson.
Christensen, F. C., 1966 Broadway, New York City—Apt. 32, 404 West 115th St., New York City.
Erdlitz, F. J., Peshtigo—Brillion.
Hall, S. S., Ripon—159 Malcolm Ave., S. E., Minneapolis, Minn.

FOURTEEN DAYS FOR MEASLES

Measles cases are to be placarded for 14 days from the time they are reported to the health officer, regardless of the practical recovery made prior to that date. Children who have had measles cannot leave the premises.

Tri-State Assembly, Wisconsin Anti-Tuberculosis Ass'n and State Nurses Meet in Milwaukee this Month

Two state associations will hold their annual meetings in Milwaukee during the week of the Annual Assembly of the Tri-State District Medical Association, October 27-Nov. 1st. The annual meeting of the Wisconsin Anti-Tuberculosis Association will be held at the Health Service Building, 558 Jefferson Street, October 30-November 1st inclusive. This will be preceded by the sessions of the State Nurses Association at the Grace Episcopal Church October 28-30th, inclusive.

The first of the scientific sessions of the Tri-State Association opens at Marquette Gymnasium at seven Monday morning, October 27th. The sessions continue until Friday evening, October 30th.

A special amphitheatre with opera seats and amplifying apparatus has been installed in the Marquette Gymnasium at a cost of upwards of \$5,000. The seating capacity of the hall will be slightly over 2,000. The basement of the Gymnasium will house the commercial and scientific exhibits.

On the second evening, Tuesday, special entertainment has been provided. At nine-thirty the scientific session will adjourn to permit the members and their wives to visit the Roof Gardens on the new Wisconsin Theatre Building. Those who desire to attend the theatre will be admitted without charge from the Roof Garden. A special orchestra will provide music for those who prefer to dance.

The annual banquet will be held at Hotel Pfister, Friday evening, October 3th. Following the banquet addresses will be made by Monsieur J. Jusserand, French Ambassador to the United States; Sir Arthur William Currie, Vice-Chancellor of McGill University at Montreal; Dr. Nicholas Murray Butler, President of Columbia University; Prof. Theodore Tuffier, University of Paris; Major General M. W. Ireland, Surgeon General of the Army, and by Rear Admiral E. R. Stitt, Surgeon General of the Navy. These addresses will be radiocast from one of Milwaukee's large radio stations.

Registration for the sessions will be held in the Exhibit Hall, Marquette Gymnasium. The usual fee of \$5 will be charged and only members in good standing of the respective state medical

PATIENTS MAY BE BROUGHT

Members of the State Medical Society of Wisconsin are advised that they may bring cases to Milwaukee for diagnostic purposes. Those desiring to take advantage of this suggestion should communicate directly with Dr. Joseph Lettenberger, 120 Wisconsin Street, Milwaukee, so that arrangements may be made to do all prerequisite laboratory work prior to the proper day. Such laboratory work will be done by Marquette University without charge.

MAKE HOTEL RESERVATIONS

Wisconsin physicians planning to attend the Tri-State meeting are again urged to make hotel reservations at once. Requests may be sent direct to Dr. Edwin Henes, Jr., 445 Milwaukee Street, Milwaukee or, preferably, to the individual hotel.

societies will be permitted to register. To facilitate registration, members are urged to bring with them their A. M. A. card or state membership certificate.

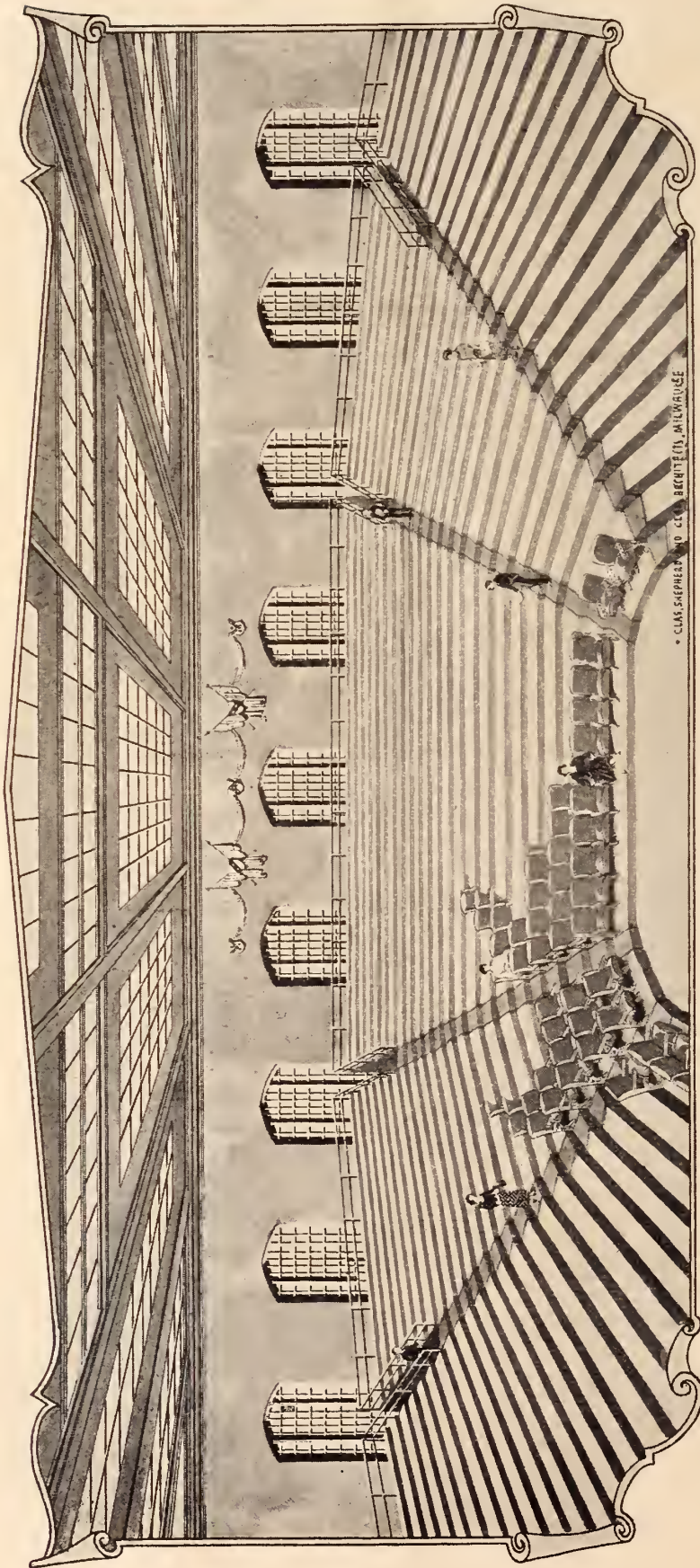
Special entertainment for the wives of the visiting physicians is being arranged and its details will be set forth in a special program to be distributed at the meeting. Members desiring to use taxi service between the depots, hotels, and Gymnasium may purchase three-ride tickets for one dollar from the Yellow or Red Top cabs. A special lunch room will be built at the Gymnasium so that the members will not need to leave the building during the short noon intermission.

This meeting of the Tri-State Association is held in Milwaukee at the invitation of the Milwaukee County Medical Society. Over two hundred members of the Society on the many committees that are arranging the details for the sessions and clinics.

W. A. T. A. MEETS.

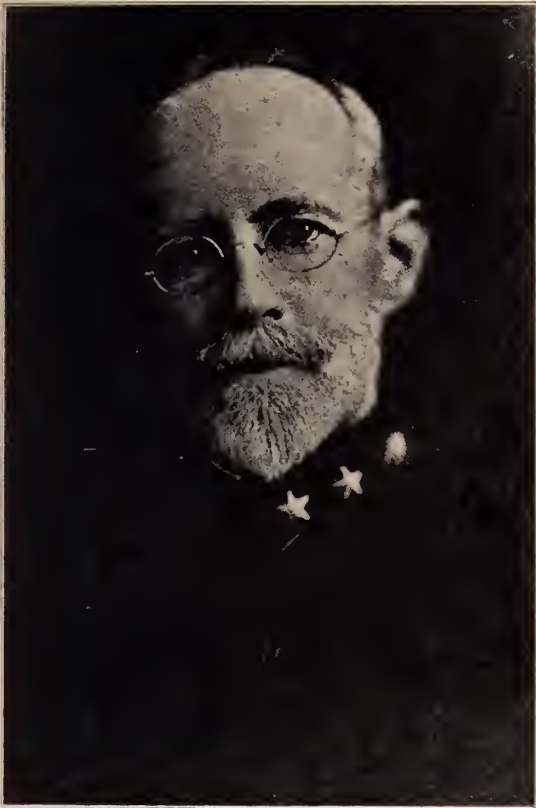
While the list of speakers for the annual meeting of the Wisconsin Anti-Tuberculosis Association, to be held in Milwaukee, October 30 to November 1, inclusive, has not been completed, the general plan of the program has been decided upon. Thursday morning will be devoted to reports and other business, including the election of officers for the ensuing year. A discussion on

Where 3,000 Will Hear Tri-State District Society Programs



Construction of an amphitheatre with theatre seats that will accommodate 2,300 is well under way at Marquette Gymnasium. The entire building will be devoted to the large session hall while the basement will be used for registration and exhibits. Special amplifying horns will be installed so that the voice of the speaker may be heard distinctly in all parts of the large hall.

The sketch shown above is from the architect's design indicating how the hall will appear where built and seats installed. The cost of the special work will exceed \$5,000.



REAR ADMIRAL EDWARD R. STITT
Surgeon-General, U. S. Navy

publicity, in all its various phases, will occupy the first half of Thursday afternoon, while the second half will be devoted to talks on the Health Service Training School conducted by the Association and its function in the public health nursing field.

The free chest clinic, its aims, how it works and what it accomplishes is to be discussed during the first half of Friday morning, while the second half will be devoted to a discussion of Wisconsin's public sanatoria and their function in the tuberculosis fight. The work of the local anti-tuberculosis associations, including all kinds of public health enterprises from providing milk lunches for underweight school children to helping support a sanatorium, will be the topic during the first part of Friday afternoon, and this is to be followed by talks on the Christmas seal sale. Friday evening there will be a dinner followed by a dance, and on Saturday morning a round-table conference of sanatorium superintendents, doctors and nurses will be held. All meetings, with the exception of the dinner gathering, will be held at the Health Service Building, 558 Jefferson St., the headquarters of the Wisconsin Anti-Tuberculosis Association.

In an endeavor to make the meeting of as much really practicable value as possible, most of the speakers have been chosen from the numerous people all over the state who are actually engaged in some form of health work and are interested in tuberculosis problems. No talks will occupy more time than forty minutes and most of them will be shorter.



MAJOR GENERAL MERRITTE W. IRELAND
Surgeon-General, U. S. Army

ALUMNI TO MEET

Alumni of the University of Pennsylvania will hold a luncheon at a date to be determined in honor of Dr. Deaver. All "Penn" alumni are urged to watch for a poster announcing the date of this dinner when they register for the Tri-State sessions.

The committee arranging the Tuesday evening entertainment at the Wisconsin Roof Garden has announced that the entire Roof Garden has been secured for the evening. Those who desire to attend the Wisconsin Theatre for the last performance will be admitted without charge from the Roof Garden floor. Special entertainment for the visiting ladies will be announced in a last minute program.

Final Program for Milwaukee Tri-State Assembly is Announced: Banquet Friday Evening

Upwards of 75,000 invitations to attend the Annual Assembly of the Tri-State District Medical Society have now been mailed to the profession of America. Physicians in the original tri-state district have received their invitations in the form of booklets containing the program. All other invitations were made in folder form.

The complete program follows:

FIRST DAY

Monday, October 27th, 1924

7 A. M.

1—Diagnostic Clinic (pediatrics). Premature infants, their care, feeding and future.

Dr. Julius H. Hess, professor of pediatrics, University of Illinois, School of Medicine, Chicago, Illinois.

2—Diagnostic Clinic (surgical). Lesions of upper abdomen centering about the stomach and gall-bladder.

Dr. Harry M. Richter, professor of surgery, Northwestern University School of Medicine, Chicago, Illinois.

3—Diagnostic Clinic (medical). Joint diseases.

Dr. Ralph A. Kinsella, professor of medicine, University of St. Louis, School of Medicine, St. Louis, Missouri.

Intermission

4—Diagnostic Clinic (surgical). Kidney infection or tumor; gall-bladder, gastric or duodenal ulcer, stomach or colonic carcinoma (in fact, any abdominal tumor).

Dr. George E. Brewer, emeritus professor of surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

5—Diagnostic Clinic (medical). Gastric or gall-bladder diseases.

Dr. John A. Witherspoon, professor of medicine, Vanderbilt University, Medical Department, Nashville, Tennessee.

Afternoon Session

1 P. M.

6—Diagnostic Clinic (surgical). Genito-urinary cases.

Dr. William E. Lower, professor of urology, Western Reserve University, School of Medicine, Cleveland, Ohio.

7—Diagnostic Clinic (medical). Diseases of the heart, the lungs, particularly pneumonia, pleurisy, etc.; diseases of the biliary passages and liver; diseases of the blood.

Dr. David Riesman, professor of clinical medicine, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

8—Diagnostic Clinic (surgical). Acute and chronic abdominal cases.

Dr. N. J. MacLean, associate professor of surgery, University of Manitoba, Faculty of Medicine, Winnipeg, Canada.

9—"Pertussis: Treatment by X-ray."

Dr. Julius H. Hess, professor of pediatrics, University of Illinois, School of Medicine, Chicago, Illinois.

10—"The Logic of Gastric Resection in Ulcer."

Dr. Harry M. Richter, professor of surgery, Northwestern University, School of Medicine, Chicago, Illinois.

11—"Treatment of Certain Types of Chronic Rheumatism."

Dr. Ralph A. Kinsella, professor of Medicine, University of St. Louis, School of Medicine, St. Louis, Missouri.

12—"Abscesses in the Posterior Mediastinum."

Dr. Charles B. Lyman, professor of clinical surgery, University of Colorado, School of Medicine, Denver, Colorado.

Intermission

13—"Late Results in Fractures of the Femur in Children."

Dr. Vernon C. David, assistant professor of surgery, Rush Medical College, Chicago, Illinois.

14—"Systemic Manifestations of Achylia Gastrica."

Dr. LeRoy Crummer, professor of Medicine, University of Nebraska, College of Medicine, Omaha, Nebraska.

15—"Non-Malignant Obstruction of the Pylorus in the Aged."

Dr. John A. Witherspoon, professor of medicine, Vanderbilt University, Medical Department, Nashville, Tennessee.

16—"Bacteriological and Pathological Studies in Certain Putrid and Gangrenous Processes, with Especial Reference to Fusospirochete Infections."

Dr. David J. Davis, professor of pathology and bacteriology, University of Illinois, School of Medicine, Chicago, Illinois.



DR. CLIFFORD U. COLLINS
Peoria, Ill.

President, Tri-State District Medical Association

Evening Session

7 P. M.

17—"Some Easily Overlooked Manifestations of Circulatory Failures with Remarks upon Diagnosis and Treatment."

Dr. David Riesman, professor of clinical medicine, University of Pennsylvania, School of Medicine, Philadelphia, Pa.

18—"The Diagnosis of Bone Tumors."

Dr. Dallas B. Phenister, assistant professor of surgery, Rush Medical College, Chicago, Illinois.

19—"Subject to Be Selected."

Dr. Joseph A. Evans, professor of medicine, University of Wisconsin, School of Medicine, Madison, Wisconsin.

20—"Anatomical Studies of Tuberculous Infection of the Human Lung."

Dr. Edward Miloslavich, director of Department of Pathology and Bacteriology, Marquette University, School of Medicine, Milwaukee, Wisconsin.

Intermission

21—"Ulcerative Colitis."

Dr. Ralph C. Brown, assistant professor of medicine, Rush Medical College, Chicago, Illinois.

22—"The Principles of the Spread of Infection."

Dr. Don M. Griswold, professor and head of Department of Preventive Medicine and Hygiene, State University of Iowa, Iowa City, Iowa.

23—"Skin Reactions."

Dr. William F. Petersen, associate professor of pathology and bacteriology, University of Illinois, School of Medicine, Chicago, Illinois.

SECOND DAY

Tuesday, October 28th, 1924

7 A. M.

1—Diagnostic Clinic (pediatrics). Breast feeding cases, including babies with their mothers from birth to the end of the first year.



HON. NICHOLAS MURRAY BUTLER
President, Columbia University

- Dr. Laurence R. DeBuys, professor of pediatrics, Tulane University, School of Medicine, New Orleans, La.
- 2—Diagnostic Clinic (surgical). Chronic arthritis cases.
Dr. Leonard W. Ely, professor of surgery, Stanford University, School of Medicine, San Francisco, California.
- 3—Diagnostic Clinic (medical). Goiter cases: adolescence, toxic adenoma, and exophthalmic.
Dr. Charles A. Elliott, professor of medicine, Northwestern University, School of Medicine, Chicago, Illinois.
- 4—Diagnostic Clinic (surgical). Brain tumors.
Dr. Walter E. Dandy, associate professor of surgery, Johns Hopkins University, School of Medicine, Baltimore, Maryland.
- 5—Diagnostic Clinic (medical). Infectious arthritis and atrophic arthritis.
Dr. Louis M. Warfield, professor of medicine, University of Michigan, School of Medicine, Ann Arbor, Michigan.
- Afternoon Session
1 P. M.
- 6—Diagnostic Clinic (surgical). Abdominal cases.
Dr. John B. Deaver, professor of surgery, University of Pennsylvania, Graduate School of Medicine, Philadelphia, Pa.
- 7—Diagnostic Clinic (surgical).
Dr. Dean Lewis, professor of surgery, Rush Medical College, Chicago, Illinois.
- 8—"The Treatment of Goiter" (slides).
Dr. Charles A. Elliott, professor of Medicine, Northwestern University, School of Medicine, Chicago, Illinois.
- 9—"The Localization of Brain Tumors."
Dr. Walter E. Dandy, associate professor of surgery, Johns Hopkins University, School of Medicine, Baltimore, Maryland.
- 10—"Rheumatoid Arthritides."
Dr. A. MacKenzie Forbes, clinical professor of orthopedics, McGill University, Faculty of Medicine, Montreal, Canada.
- 11—"Goiter."
Dr. Wallace Irving Terry, professor of surgery, University of California, School of Medicine, San Francisco, California.

Intermission

12—Symposium, "Diagnosis of Surgical Lesions of the Upper Genito-Urinary Tract."

Dr. William E. Lower, professor of urology, Western Reserve University, School of Medicine, Cleveland, Ohio.

Dr. Bernard H. Nichols, Department of Roentgenology, Cleveland Clinic, Cleveland, Ohio.

13—"The Clinical Diagnosis of Pericarditis with Effusion."

Dr. Roger S. Morris, professor of medicine, University of Cincinnati, School of Medicine, Cincinnati, Ohio.

14—"Abdominal Contusions Associated with Visceral Injury."

Dr. George E. Brewer, emeritus professor of surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

Evening Session
7 P. M.

15—"Surgery of Jaundice."

Dr. John B. Deaver, professor of surgery, University of Pennsylvania, Graduate School of Medicine, Philadelphia, Pa.

16—"The Pathological Physiology of Jaundice."

Dr. Stanley P. Reimann, director of laboratories, Lankenau Hospital, Philadelphia, Pa.



SIR ARTHUR WILLIAM CURRIE, G.C.M.G., K.C.B.
Vice-Chancellor, McGill University

17—"Observations on the Treatment of Goiter Cases."

Dr. N. J. MacLean, associate professor of surgery, University of Manitoba, Faculty of Medicine, Winnipeg, Canada.

18—"Recent Progress in Thoracic Surgery."

Dr. Carl A. Hedbloom, professor of surgery, University of Wisconsin, School of Medicine, Madison, Wisconsin.

19—"Neuro-Psychiatric Manifestations of Pellagra."

Dr. Marvin L. Graves, professor of medicine, University of Texas, School of Medicine, Galveston, Texas.

20—"Medical Treatment of Empyema with Especial Reference to Chemotherapy."

Dr. Ralph H. Major, professor and head of Department of Medicine, University of Kansas, School of Medicine, Rosedale, Kansas.

Theater Party



DR. JOHN B. DEEVER
Professor of Surgery, School of Medicine, University of
Pennsylvania

THIRD DAY

Wednesday, October 29th, 1924

7 A. M.

1—Diagnostic Clinic (surgical). Ulcer of the Jejunum and Other Abdominal Cases.

Dr. Wallace Irving Terry, professor of surgery, University of California, School of Medicine, San Francisco, California.

2—Diagnostic Clinic (dermatology). Skin diseases.

Dr. Charles J. White, professor of dermatology, Harvard University, School of Medicine, Boston, Mass.

3—Diagnostic Clinic (orthopedic). Tuberculosis of the bones, deformities, spastic paralysis, sciatica, etc.

Dr. A. MacKenzie Forbes, clinical professor of orthopedics, McGill University, Faculty of Medicine, Montreal, Canada.

Intermission

4—Diagnostic Clinic (surgical). Cystocele, Rectocele and Enterocele Associated with and without Procidencia Uteri in Young and Old Women.

Dr. George Gray Ward, Jr., professor of obstetrics and gynecology, Cornell University, School of Medicine, New York, N. Y.

5—Diagnostic Clinic (surgical). Cases in which etiology can be traced to focal infection.

Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minnesota.

Afternoon Session

1 P. M.

6—Diagnostic Clinic (surgical). Contractures, deformities, tumors, etc., of hand.

Dr. Allen B. Kanavel, professor of surgery, Northwestern University, School of Medicine, Chicago, Illinois.

7—Diagnostic Clinic (surgical). Chronic ulcer of stomach and duodenum.

Dr. John F. Cowan, professor of surgery, Stanford University, School of Medicine, San Francisco, California.

8—"The treatment of Septicæmias and Intoxications in Infants and Children."

Dr. Alan Brown, professor of pediatrics, University of Toronto, Faculty of Medicine, Toronto, Canada.

9—"Focal Infection as a Cause of Disease."

Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minn.

10—"The Value of Gastro-Enterostomy for Duodenal Ulcer."

Dr. John A. Hartwell, associate professor of surgery and clinical surgery, Cornell University, Medical College, New York, N. Y.

11—"Rickets."

Dr. Laurence R. DeBuys, professor of pediatrics, Tulane University, School of Medicine, New Orleans, La.

12—"Chronic Arthritis."

Dr. Leonard W. Ely, professor of surgery, Stanford University, School of Medicine, San Francisco, California.

13—"Intestinal Protozoa. Their Recognition and Relation to Chronic Diseases, with Especial Reference to Arthritis." (Slides.)

Dr. John V. Barrow, Los Angeles, California.

14—"The Anatomy and Physiology of the Abnormal Kidney."

Dr. Milton C. Winternitz, dean of Yale University School of Medicine, professor of pathology and bacteriology, New Haven, Conn.

Intermission

15—"Ulcer and Cancer of the Stomach."

Dr. George W. Crile, professor of surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

16—"Epidermophytosis."

Dr. Charles J. White, professor of dermatology, Harvard University, School of Medicine, Boston, Mass.



DR. LEONARD W. ELY
Professor of Surgery, Stanford University School of
Medicine

17—"Medical Advancement and Research."

Dr. Dean Lewis, professor of surgery, Rush Medical College, Chicago, Illinois.

18—"Occult Tuberculosis."

Dr. Louis M. Warfield, professor of medicine, University of Michigan, School of Medicine, Ann Arbor, Michigan.

19—"Direct Blood Stream Infection from Tonsils."

Dr. Samuel J. Crowe, clinical professor of laryngology, Johns Hopkins University, School of Medicine, Baltimore, Maryland.

Evening Session

7 P. M.

20—"Iron in Therapy."

Dr. Charles S. Williamson, professor of medicine, University of Illinois, School of Medicine, Chicago, Illinois.

21—Symposium, University of Minnesota Graduate School of Medicine (Mayo Clinic), Rochester, Minnesota.

"Renal Calculus."

"The Development of Renal Calculus."

Dr. Charles H. Mayo, Mayo Clinic, Rochester, Minnesota.

"The Production of Urinary Calculi by the Devitalization



DEAN WALTER LINDSAY NILES
Cornell University Medical School

cephalic or spastic diplegia or any case of arrested mental development.

4—Any infant—1 or more—marasmus, rickets, pyloric stenosis or an ordinary feeding case; i. e., an infant who is not a marantic but is simply not up to the standard weight and development.

5—Case of eczema in an infant or child.

6—Any case of valvular heart disease.

7—A case of chronic intestinal indigestion in an older child (coeliac disease).

8—A case of recurrent vomiting or acidosis in an older child.

9—Any type of feeding case.

2—Diagnostic Clinic (surgical). Gall-bladder disease, cancer of the rectum or large intestine, osteomyelitis and fracture of the long bones, particularly about the joints.

Dr. John A. Hartwell, associate professor of surgery and clinical surgery, Cornell University, Medical College, New York, N. Y.

3—Diagnostic Clinic (orthopedic). Joint tuberculosis; Pott's disease, hip, knee joint and ankle disease. Infantile paralysis cases; deformities of various types both of the extremities and the spine.



Dr. W. B. HENDRY
Professor of Obstetrics and Gynecology, University of Toronto

Dr. Russell A. Hibbs, professor of orthopedic surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

Intermission

4—Diagnostic Clinic (medical). Chest Cases—Thoracic Aneurism, Pleurisy, Pneumonia and Pulmonary Tuberculosis.

Dr. Frederick J. Kalteyer, associate professor of medicine, Jefferson Medical College, Philadelphia, Pa.

5—Diagnostic Clinic (surgical). "Stomach and Gall-Bladder Diseases."

Dr. George W. Crile, professor of surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.

Afternoon Session

1 P. M.

6—Diagnostic Clinic (surgical). Fractures of the upper extremities.

Dr. William Darrach, dean and associate professor of surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

and Infection of Teeth in Dogs with Streptococci from Cases of Nephrolithiasis."

Dr. E. C. Rosenow, Mayo Clinic, Rochester, Minnesota. "Clinical Data with Nephrolithiasis."

Dr. W. F. Brausch, Mayo Clinic, Rochester, Minnesota. 22—"The Prevention of Post-Operative Ileus."

Dr. LeRoy Long, dean and professor of surgery, University of Oklahoma, School of Medicine, Oklahoma City, Oklahoma.

23—"The Hypertension Syndrome in General Practice."

Dr. John H. J. Upham, professor and head of Department of Medicine, University of Ohio, School of Medicine, Columbus, Ohio.

24—"Traumatism of the Head."

Dr. Garfield M. Hackler, professor of surgery, Baylor University, School of Medicine, Dallas, Texas.

25—Symposium, "Contagious and Infectious Diseases." "Endocarditis."

Dr. Joseph A. Capps, professor of medicine, Rush Medical College, Chicago, Illinois.

"The Diagnosis and Treatment of Gonococcus Infection."

Dr. Russell D. Herrold, McCormick Institute for Infectious Diseases, Chicago, Illinois.

"The Use of Immune Serum to Protect Young Children from Measles."

Dr. George Weaver, McCormick Institute for Infectious Diseases, Chicago, Illinois.

"Immunity Results Obtained with Diphtheria Toxoid (Modified Toxin) in the Public Schools of New York (Manhattan and the Bronx)."

Dr. Abraham Zinger, assistant professor of hygiene, University and Bellevue Hospital Medical College, New York, N. P.

FOURTH DAY

Thursday, October 30th, 1924

7 A. M.

Cases to Be Presented

1—Diagnostic Clinic (pediatrics).

Dr. Alan Brown, professor of pediatrics, University of Toronto, Faculty of Medicine, Toronto, Canada.

1—Any new-born infant having either erysipelas, umbilical infection, pyaemia, meningitis, arthritis, etc., or any infection of the new-born.

2—Case of intestinal intoxication, acidosis in an older child, burn toxemia, any case of chronic infection with possibility of a bacteremia such as an acute mastoid, acute or chronic osteomyelitis, etc.

3—Any infant or child—mongolian, microcephalic, hydro-



DR. WALLACE I. TERRY
Professor of Surgery, University of California

7—Diagnostic Clinic (surgical). Thyroid cases, T. B. glands of the neck, esophageal diverticulum, spinal accessory paralysis, thyro-glossal cysts and gall stone cases, particularly with jaundice.

Dr. Francis H. Lahey, professor of clinical surgery, Harvard University, School of Medicine, Boston, Mass.

8—"Modern Aids to Labor."

Dr. William B. Hendry, professor of obstetrics and gynecology, University of Toronto, Faculty of Medicine, Toronto, Canada.

9—"History Taking in Gastro-Intestinal Diseases as Based upon a Working Conception of the Development and the Activities of the Tract."

Dr. William Goldie, associate professor of medicine, University of Toronto, Faculty of Medicine, Toronto, Canada.

10—"The Treatment of Joint Tuberculosis and the Deformities of Infantile Paralysis."

Dr. Russell A. Hibbs, professor of orthopedic surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

Intermission

11—"Prophylactic Blood Transfusion as a Routine Measure in Poor Operative Risks."

Dr. George Gray Ward, Jr., professor of obstetrics and gynecology, Cornell University, School of Medicine, New York, N. Y.

12—"Anomalous Peritoneal Bands; Their Clinical Significance and Treatment."

Dr. Walter L. Niles, dean and professor of clinical medicine, Cornell University, School of Medicine, New York, N. Y.

13—"The Diagnosis and Treatment of Tuberculosis of the Seminal Tract."

Dr. Hugh H. Young, clinical professor of urology, Johns Hopkins University, Medical Department, Baltimore, Maryland.

14—"Surgery of the Hand."

Dr. Allen B. Kanavel, professor of surgery, Northwestern University, School of Medicine, Chicago, Illinois.

Evening Session

7 P. M.

15—"The Interpretation of the Cough Symptom."

Dr. Frederick J. Kalteyer, associate professor of medicine, Jefferson Medical College, Philadelphia, Pa.

16—"Prognosis in Chronic Heart Disease."

Dr. Walter T. Connell, professor of medicine, Queen's University, Faculty of Medicine, Kingston, Canada.

17—"Food Poisoning."

Dr. Milton J. Rosenau, professor of preventive medicine and hygiene, Harvard University, School of Medicine, Boston, Mass.

18—"Healing of Fractures" (slides).

Dr. John F. Cowan, professor of surgery, Stanford University, School of Medicine, San Francisco, California.

19—"Abnormally Located Goiters."

Dr. Francis H. Lahey, professor of clinical surgery, Harvard University, School of Medicine, Boston, Mass.

20—"The Significance of Impaction and Active Motion in Treatment of Fractures of Hip and Shoulder" (slides).

Dr. John L. Yates, Milwaukee, Wisconsin.

Dr. G. W. Stevens, Milwaukee, Wisconsin.

21—"Symposium, Western Reserve University, School of Medicine (Crile Clinic), Cleveland, Ohio.

"The Diagnosis and Treatment of Gall-Bladder Diseases."

(a) "Medical Aspects."

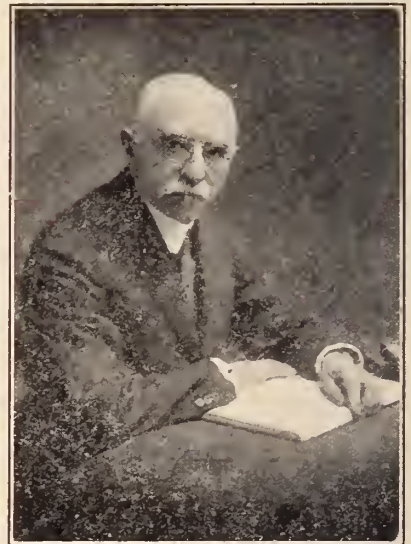
Dr. John Phillips.

(b) "The Role of the X-ray in Diagnosis."

Dr. Bernard H. Nichols.

(c) "Surgical Aspects."

Dr. George W. Crile, professor of surgery, Western Reserve University, School of Medicine, Cleveland, Ohio.



DR. DAVID RIESMAN
Prof. of Clinical Medicine, University of Pennsylvania

FIFTH DAY

Friday, October 31st, 1924
7 A. M.

1—Diagnostic Clinic (medical).

(1) Nervous manifestations in childhood; e. g., night terrors, wandering away, bad habits.

(2) Chronic invalidism in an adult.

(3) An early schizophrenic case (dementia praecox).

(4) The depressed type of reaction.

(5) A case with some paranoid beliefs.

Dr. C. Macfie Campbell, professor of psychiatry, Harvard University, School of Medicine, Boston, Mass.

2—Diagnostic Clinic (surgical). Surgical cases.

Dr. William J. Mayo, Mayo Clinic, Rochester, Minnesota.

3—Diagnostic Clinic (surgical). Surgical cases.

Professor Theodore Tuffier, professor of surgery, Faculty of Medicine, University of Paris, France.

Intermission

4—Diagnostic Clinic (medical). Gastro-intestinal cases (some of these to be duodenal spasm of various origins).

Dr. William Goldie, associate professor of medicine, University of Toronto, Faculty of Medicine, Toronto, Canada.

5—Diagnostic Clinic (urology). Chronic prostatitis, tuberculosis of the prostate, hypertrophy of the prostate.

Dr. Hugh H. Young, clinical professor of urology, Johns Hopkins University, Medical Department, Baltimore, Maryland.

Afternoon Session

1 P. M.

6—Diagnostic Clinic (gynecological). Cases of retroversion, prolapse, hypertrophy of the cervix, cystocele, rectocele, etc.

Dr. William B. Hendry, professor of obstetrics and

gynecology, University of Toronto, Faculty of Medicine, Toronto, Canada.

7—Diagnostic Clinic (surgical). Chronic appendicitis. Sir Henry Gray, Royal Victoria Hospital, Montreal, Canada.

8—Diagnostic Clinic (surgical). Fixation and deformity of the intestine by anomalous peritoneal bands, also hepato-duodenal type. (Harris bands).

Dr. Walter L. Niles, dean and professor of clinical medicine, Cornell University, School of Medicine, New York, N. Y.

9—"Morbid Attitudes and Beliefs."

Dr. C. Maché Campbell, professor of psychiatry, Harvard University, School of Medicine, Boston, Mass.

10—"Address."

Major-General Merritte W. Ireland, surgeon-general of the United States Army, Washington, D. C.

11—"The Transplantation of the Ovary and Its Preservation."

Professor Theodore Tuffier, professor of surgery, Faculty of Medicine, University of Paris, France.

12—"Address."

Rear-Admiral Edward R. Stitt, surgeon-general of the United States Navy, Washington, D. C.

Intermission

13—"Address."

Sir Arthur William Currie, president of McGill University, Faculty of Medicine, Montreal, Canada.

14—The Value of Examinations of the Blood.

Dr. William J. Mayo, Mayo Clinic, Rochester, Minnesota.

15—"Common Abnormalities of the Large Bowel; Their Influence, Local and General, on the Human Economy."

Sir Henry Gray, Royal Victoria Hospital, Montreal, Canada.

16—"Massage and Movements in the Treatment of Fractures."

Dr. William Darrach, dean and associate professor of surgery, Columbia University, College of Physicians and Surgeons, New York, N. Y.

Evening

Banquet, Hotel Pfister.

Blood Chemical Analysis is Now Available to all Wisconsin Physicians, Without Cost

BY ELMER L. SEVRINGHAUS, M.D.,

ASSISTANT PROF. PHYSIOLOGICAL CHEMISTRY, UNIVERSITY

OF WISCONSIN MEDICAL SCHOOL; CHEMIST,

WISCONSIN PSYCHIATRIC INSTITUTE.

Beginning the 10th of October, 1924, any physician in Wisconsin may have chemical analysis made of blood specimens without cost. The Wisconsin Psychiatric Institute has recently expanded its chemical laboratory to provide this service. This new addition to the laboratory service has brought to fruition another of the ideals of helpfulness to the citizens of Wisconsin which has been in the mind of Dr. W. F. Lorenz for a number of years. Ten years ago the laboratory at the Institute began to perform the Wassermann test on blood samples sent in by Wisconsin physicians. A few months later the legislature made provision for the *free* Wassermann test which has now come to be a matter of course to the medical profession in this state. This work has grown year by year, and the use made of the laboratory has increased not only in the number of samples but in the types of examinations that are made on blood and on spinal fluid. Some physicians have known of this expanding service of the laboratory at the Institute, and have sent to the Institute blood or other materials for examinations which are done elsewhere. Since it is not possible at present to have all the different laboratory services organized and housed together, physicians will get a more prompt response to requests for laboratory examinations if the specimens are mailed directly to the proper address. The State Laboratory of Hygiene, at Madison, does all the bacteriological work, the water analysis, etc. Complete instructions may be obtained from the laboratory at Madison, or any of the

branch laboratories. Dr. Bunting, at the University Medical School, makes the pathological examinations on tissues. The State Toxicologist, Dr. Muehlberger, at the University Medical School, makes examinations of all sorts of materials for the detection of poisons. The laboratory at the Wisconsin Psychiatric Institute performs the Wassermann test and other tests on the blood and spinal fluid which may be of significance in the diagnosis of syphilis. The Institute has now added the examination of the blood by chemical means. If specimens are properly marked and addressed to the proper laboratory the results will usually be in the physician's hands 24 to 48 hours sooner than if misdirected, as this requires transferring the specimen to the proper laboratory.

The blood chemical analyses have been increasing in importance for the past 15 years. Methods have been elaborated by such men as Folin, Benedict, Myers and Van Slyke which have made the analysis accurate and relatively simple. Nevertheless, the mastery of the technique has demanded more time and attention than most clinicians can afford to give to it. The work can only be done with special apparatus and chemicals that make the work rather expensive unless done on a large scale. As a consequence the use of these chemical methods of blood examination has been restricted very largely to hospitals and institutions which could afford to employ specially trained technical help or those which had chemists as members of the staff. In spite of this handi-

STATE LABORATORY SERVICE

STATE LABORATORY OF HYGIENE,
Madisons, Wis., or
branches

Blood—cultures and typhoid examinations.
Spinal Fluid—all conditions except syphilis.
Tissues—suspected rabies, tuberculosis, anthrax,
actinomycosis
Sputum—tuberculosis and other organisms.
Swabs—diphtheria, Vincent's angina, or gonor-
rhea organisms.
Feces—parasites, typhoid or bacillary dysentery
organisms.
Urine—routine examination.
Vaccines—typhoid, paratyphoid and autogenous.
Milk—bacteriological.
Water—chemical and bacteriological.

STATE TOXICOLOGIST,
Science Hall,
Madison, Wis.

Tissues, body fluids, drugs,
or other materials sus-
pected of containing
poisons.

WISCONSIN PSYCHIATRIC
INSTITUTE,
Mendota, Wis.

Serological Laboratory:
Blood and spinal fluid exam-
inations concerned with the
diagnosis of syphilis.
Chemical Laboratory:
Blood examinations for sugar,
uric acid, urea, creatinine,
and non-protein nitrogen.

cap the profession today has grown very rapidly to make use of the results of such blood study in the diagnosis of disease.

BLOOD MUST BE PRESERVED

The obstacle which has prevented the use of centrally located laboratories for such analysis is the instability of the blood. If blood is drawn from the veins and allowed to stand for a few hours, the sugar in the blood gradually disappears. Other chemical changes proceed less rapidly, but still to a large enough extent to make the blood a very different substance after only a few hours outside the body. It is therefore quite generally known that unless the blood is analyzed within the first hour or so after the sample has been drawn from the vein, the analysis does not represent the true state of affairs in the blood of the patient. Refrigeration has been of little use here. The fundamental cause of these chemical changes after blood is drawn is that the blood is a living tissue, undergoing chemical changes. At least the white corpuscles are continually carrying on a metabolism, even outside the body, using up sugar and other materials. A number of chemists have been trying to find some preservative which would stop this process and keep the blood in the same condition in which it was drawn. Most of these materials have been of only slight help, or they have interfered with the chemical analysis which is to follow. Beginning about four years ago Dr. Lorenz tried the use of a number of well known preservatives and antiseptics. With the aid of Dr. W. J. Bleckwenn, also of the Institute staff, this work was extended. Two years ago Dr. F. V. Sander was added to the staff. Profiting by the work of Dr. Lorenz and Dr. Bleckwenn he went

on and soon found success. Although no one has found a single satisfactory preservative, Dr. Sander has now demonstrated that a combination of 10 parts of sodium fluoride and 1 part of thymol will give the desired result. This preservative not only prevents the coagulation of the blood, but prevents the chemical changes in the blood so thoroughly that blood may be mailed to the laboratory for analysis. If the analysis is begun two or three days after the blood is taken from the patient the result has just as great significance as if the analysis were done immediately. It is possible with the use of this preservative to determine the amounts of sugar, urea, uric acid, creatinine, and non-protein nitrogen in blood. Perhaps later still other analyses may be made possible with the preserved blood. But fortunately these five analyses are the ones most commonly required for clinical purposes.

The result of this research was published in November, 1923, in the *Journal of Biological Chemistry*, by Dr. Sander. When it became evident to him that the use of this mixture of sodium fluoride and thymol was satisfactory, arrangements were made to have a number of physicians send in blood samples for such analyses. They have done so with the understanding that this was a trial service. Their cooperation has made the use of the preservative a demonstrated success for a period of over a year past. It is now possible to extend the privilege of this free service to all the medical profession in Wisconsin. The usefulness of the preservative has been tested out, independently of Dr. Sander's work by the writer in the laboratory at the University Medical School. It is perfectly satisfactory for these purposes.

SPECIAL SHIPPING PACKAGES ARE PROVIDED

Any physician who desires to send in blood for analysis should request from the Wisconsin Psychiatric Institute, at Mendota, Wis., a supply of the special vials and the shipping cartons in which they may be mailed to the laboratory. When the special vials are sent from the Institute the proper amount of the thymol and sodium fluoride is contained in them. Accompanying each vial is a sheet of instructions for the physician. It is necessary to use simply a clean syringe and a sterile needle. The blood is transferred at once to the vial, and the stopper is replaced immediately. The blood is shaken vigorously. This shaking is highly important, for if it is omitted, the preservative will not be dissolved. In that case the blood will not be preserved. This failure to dissolve is shown by the coagulation of the blood. A specimen which is coagulated cannot be used.

The chemical laboratory will be directed by a physician and chemist. In addition to rendering accurate analyses, the laboratory will endeavor to assist in interpreting the analytical results. Since many physicians have not had the opportunity of using these methods, it is anticipated that a brief interpretation may be of service. The reports from the laboratory will contain as much standard interpretation as possible in printed form. In addition to this, the director of the laboratory will be glad to make additional interpretations in individual cases when that is desired. The data which should accompany each sample of blood include clinical information which will make possible such interpretation. It is almost never possible to make an interpretation without some clinical data in mind. It is of course highly important that the physician keep always in mind the fact that his own observation of the patient is to be trusted rather than any single laboratory finding if the two examinations do not agree. If the laboratory finding is at variance with the clinical condition another specimen should be sent in for confirmatory examination.

USEFULNESS OF BLOOD ANALYSIS

The use of blood sugar determinations in the diagnosis of diabetes and in the conduct of the treatment of this disease has become apparent to most physicians since the use of insulin has become general in the last fifteen months. We now understand that blood sugar concentration is at

what is known as the "fasting level" throughout the night and until food is taken. After a meal this sugar concentration increases due to the absorption of sugar from the food. The production of insulin by the pancreas then facilitates the storage of this sugar so that the blood sugar comes back to the original level. In many people the storage goes on to such an extent that the blood sugar is reduced below the fasting level temporarily. At such times hunger may be experienced. This condition has been spoken of as "hyperinsulinism." It occurs not only as the result of administering too large doses of insulin into the body but as the consequence of over-secretion of insulin by the pancreas. The condition is usually quite transitory, and is followed by a return to the fasting blood sugar level. This series of changes may take place in an hour or in several hours. In the diabetic individual there is a diminished ability to secrete insulin, and these changes may be modified or entirely suppressed. In the latter case the absorption of sugar from food leads to an abnormally high blood sugar level which is maintained permanently. These phenomena have been the basis for the sugar tolerance tests which have been so frequently used. Their use has become less necessary as the possibility of measured diet plus frequent blood chemical analysis and urine examination have made the diagnosis even more certain with greater comfort and safety to the patient. In the proper administration of insulin to diabetic patients it is often possible to improve the distribution of the dosage during the day by knowing the extent of the changes of blood sugar during the course of the day. Again there are some young diabetics who can be maintained sugar free without insulin. Study of their blood sugar may reveal that it is at an abnormally high level, but not sufficiently high to lead to a gross appearance of sugar in the urine. Such cases may receive permanent benefit from insulin treatment or greater diet restriction.

The four determinations which have to do with kidney efficiency are those of the uric acid, urea, creatinine, and the non-protein nitrogen. The term "non-protein nitrogen" is used to include all compounds which contain nitrogen except the proteins. The chief forms of non-protein nitrogen in blood are urea, the amino acids, uric acid and creatinine. The amino acids are the digestive products of protein food, being transported to

the tissues. So far as is now known they show little variation in disease. The urea, uric acid, and creatinine, together with many other substances in smaller amounts are products of metabolism which are in process of excretion, being carried by the blood to the kidneys. When the kidneys become damaged they have their excretion powers reduced. This may be shown by inability to remove salt and water from the body, in which case edema occurs. Even more commonly the damaged kidney is unable to remove these nitrogenous compounds as efficiently as before. It seems as though the kidney were a filter which would not allow the nitrogen containing compounds to pass through unless they reach the kidney at a certain "pressure." The "pressure" here is the concentration of these materials in the blood. The increase in the concentration of these materials in the blood is therefore taken as a sign of decreased ability of the kidney to perform normal functions. It happens usually that uric acid is the first of these materials to increase, followed by urea, and in very severe damage to kidney function, the creatinine is also increased above normal concen-

trations. There are unfortunately other conditions besides nephritis which lead to increased uric acid in the blood. This one determination is therefore not pathognomonic of nephritic disease. Coupled with clinical signs and with increases in the urea or the total non-protein nitrogen the evidence is conclusive. Increases in the creatinine content of blood are usually attended with a grave prognosis, except in the case of acute conditions, where early relief may be followed by recovery.

These few suggestions are made to indicate the possible value to the clinician of blood chemistry. Clinicians who have developed special interests will think at once of many other situations where such data are well nigh indispensable. The need of such chemical methods is becoming more acutely felt by physicians. It is therefore the hope of the Psychiatric Institute that this free state wide service will provide something which will be of real and immediate benefit to the medical profession of the state, and through them to the citizens of the state at large.

Permit Features of State and National Prohibition Acts Described for Wisconsin Physicians

BY HERMAN W. SATCHJEN,
STATE PROHIBITION COMMISSIONER,
MADISON

Editor's Note—Mr. Satchjen has written this article at our request so that our members may more completely understand the inter-relation and permit features of the state and national prohibition laws. The principles of legislation involved make this subject of interest to all.

Every physician in Wisconsin should have an understanding of the permit features of the state and national prohibition laws. This is, accordingly, an attempt to explain concisely the fundamental features of these acts as they apply to physicians and is neither a brief for or against any of the principles that may be involved.

NATIONAL LAW PARAMOUNT

Before one may explain the state prohibition act, some attention must be given the federal act.

This federal act provides, in brief, that a physician must have a federal permit before he may (1) prescribe alcohol or alcoholic liquors, (2) purchase liquor for medicinal purposes and (3)



HON.
HERMAN W. SATCHJEN

before he may purchase alcohol for compounding medicines or sterilization purposes. Any one or combination of these privileges, however, may be secured under one permit and that without cost to the physician.

Even though a physician may have secured a federal permit for but one of these privileges and later desires to secure other of the specified privileges, no cost is involved. He needs only to return his permit asking for its revision to include the additional privilege desired.

Thus, we see that the federal prohibition act, as it applies to physicians, is but an exercise of

police power to the end that the lawful prescribing and use of alcohol and liquor will not be abused.

STATE LAW ENACTED IN 1921

In the 1921 session of the Wisconsin Legislature there was passed a state prohibition enforcement act known as the "Severson Act." This act created the state prohibition commission and provided for a commissioner and certain deputies. Though the proposed provisions of the act were widely discussed and appeared generally in the press, no physicians appeared to oppose any of the permit features of the law.

The law, as passed, became effective July 1st, 1921. It provided that before a physician might exercise any of the privileges secured under his federal permit he must also secure a state permit, or permits, covering the identical privileges set forth in the federal permit. These state permits must be secured from the State Prohibition Commissioner, State Capitol, at Madison.

Two classes of permits, at a fee of \$10 each, were provided in this act. The class "A" permit (cost \$10) permitted a physician to prescribe liquor for medicinal purposes. A class "B" permit (cost \$10) included three privileges, any one or all of which might be had upon application. The first was the privilege to purchase liquor for emergency medicinal purposes, the second was the right to purchase alcohol for use in compounding medicines and the third covered the right to purchase alcohol for sterilization purposes only.

A prerequisite to the issuance of a state permit was the granting of a federal permit together with the approval of the district attorney of the county in which the applicant resided.

To be specific, from July 1st, 1921, to January 1st, 1924, a physician who desired to prescribe should have had a class A permit at a cost of \$10 annually. If the physician, during that time, purchased alcohol for sterilizing his instruments, for compounding medicines, or purchased liquor for emergency medical purposes, he should have had a class B permit at an annual cost of \$10.

CHANGE IN 1923

In 1923 the legislature amended this law in one respect. Since January 1st, 1924, the right to secure alcohol for sterilization purposes only has required a new permit known as a class "C" permit. To this permit no fee is attached.

So we find the state law today with three sepa-

rate permits, only one of which is without the \$10 fee. As the law now stands, a physician desiring to prescribe must have a class A permit at an annual cost of \$10. If he desires to use alcohol in compounding medicines or desires to purchase liquor for emergency medicinal purposes, these two privileges may be had in a class B permit at an annual cost of \$10. If he desires to secure alcohol for sterilization purposes he must secure a class C permit, this without charge.

It will be seen, that in effect, the Wisconsin act is more than a supervisory measure. The separate fees and their amount bring a revenue to the state far in excess of the cost of administration of that feature of the law. These fees, as collected, are turned over to the state treasurer for the general fund. From the general fund there is appropriated back to the State Prohibition Commission \$60,000 annually for its work.

LAW IS CONSTITUTIONAL

Constitutionally, there can be no question but that the law is sound as an exercise of the inherent police powers of the state. Whether it was necessary to charge separate fees, or indeed any fee, are points that were never brought to the attention of the 1921 legislature. The attorney general of the state has but recently ruled that the separate fees can be charged as provided. This point was contested by your Society.

Unfortunately many of our Wisconsin physicians never have understood the provisions of their own state act. Some thought that a federal permit was all that was necessary. Others apparently neglected or overlooked the state permit. As a result many have been but recently advised that they owe the state permit fees for all those calendar years since July 1st, 1921; that they had a federal permit and neglected to take out their proper state permits.

The state prohibition department is advised at all times to whom federal permits have been issued and for what purposes. From time to time the state department, accordingly, sends out notices to physicians who have neglected to take out the proper state permits. In conclusion, while the law provides penalties for such neglect, it has never been our policy to enforce these penalties. We have found that all have recognized the necessity of paying the required fees, even though they may have been ignorant of such

requirements at the time the fees were legally due.

As one in position to see the working of this feature of the state law, however, it is my belief that the law might well be amended so that but one permit would be required. It would seem that a permit with separate provisions, such as

the federal permit, would accomplish the end in view, and, if adopted, should not have the present excessive fees. This measure, as it applies to physicians, is intended to accomplish a supervisory purpose and not be in effect a rather generous source of revenue.

Cooperation in Follow-up Work Features Service at Forest Lawn, Jefferson County Sanatorium

BY MRS. RUTH MACMILLAN,

WISCONSIN ANTI-TUBERCULOSIS ASSOCIATION.

No one who has ever "taken the cure" at Forest Lawn, Jefferson county's attractive tuberculosis sanatorium, need feel upon leaving that the helpfulness and interest the institution has shown during his stay there is a thing of the past. Service for the ex-patient, whether it be merely helpful advice, sympathetic encouragement or the tackling of personal and family problems in an effort to give the patient the best chance to keep the health he has regained is a part and parcel of the sanatorium plan.

This follow-up work is conducted primarily by Miss Levina S. Dietrichson, the sanatorium superintendent, who has won the cooperation of other health agencies throughout the county and many in other counties from which the discharged patients have come. The names of all discharged patients who are residents of Jefferson county are given each month by Miss Dietrichson to Miss Mildred Banker, county nurse, who calls upon them periodically with the idea of keeping them so far as possible from slipping back into the condition from which the sanatorium received them.

In a town where there is a city nurse, the names of patients from that town are given also to the city nurse, and when patients come from other counties their names are given to the county nurses of those counties, if they have such nurses. Many personal visits are also made by Miss Dietrichson. The names of discharged patients who have been unable to pay for their care and are therefore county charges are sent each month to the various county judges together with a statement of their residence place, the date of their admission to the sanatorium, their condition and if discharged, the date of their discharge. This enables the county judge to follow each case closely.



FOREST LAWN SANATORIUM.

That the large majority of patients adapt themselves to the life of the sanatorium and become loyal supporters of the institution is demonstrated by a flourishing "alumni association" of ex-patients. This association raised \$85 last spring with which to carry on "sunshine work," that is, activities that help to make life more agreeable for their less fortunate brethren still in the sanatorium.

One of the uses to which the \$85 raised by the alumni association was put was the purchase of a three-sided tent without a top, large enough to accommodate several cots. In this tent which is placed at considerable distance from the building, patients are given heliotherapy or sun treatment. Twenty-six patients are taking this treatment. The administration of such treatment is rather new in Wisconsin sanatoria, especially among adults.

Forest Lawn, one of the newer sanatoria of the state, was opened in the spring of 1921. It is a modern brick building located about a mile from Jefferson, and erected upon a wide slope attractively planted with shrubs and flowers. The rated capacity of the institution is 48, but during the past year there have never been less than 50 patients in the sanatorium. At present there is a

waiting list of 16 and during the past year 160 applicants were turned away because of lack of accommodations. Of this number, however, 85 were placed in other county and state sanatoria. Although no special quarters have been provided for them, children over 5 years of age are taken as patients.

Dr. A. A. Busse is medical attendant of Forest Lawn and the institution has also availed itself of the consultation services offered by the Wisconsin Anti-Tuberculosis Association. Incidentally, this consultation service represents an original and valuable contribution to the successful administration of the chain of small county sanatoria. By means of it detached sanatoria are brought into fellowship with other similar institutions. And the services of a tuberculosis specialist, which would not otherwise be available, are secured at nominal cost. The excess cost of the service over the amount charged the sanatoria is contributed by the state association from its general funds.

Six nurses are employed to care for the patients under the direction of Miss Dietrichson, and only graduate nurses are put on night duty. All laboratory work is done at the sanatorium by Mrs. E. Leidgen, a graduate nurse and laboratory worker.

Instead of employing the usual occupational therapy enterprises as a means of occupying the patients' minds during convalescence and of hardening them for their return to normal life, patients at Forest Lawn are put on the "graduated work" system. The kind of work and the length of time which the patient is permitted to spend upon it is decided by the physician. Housework is provided for the women; gardening, light carpentering and odd jobs about the sanatorium for men. No patient is discharged from the institution before he is able to work five consecutive hours without injury to his health. Male patients are also frequently sent to Tomahawk Lake where the state maintains a camp solely for the purpose of giving men who have taken "the cure," and who have regained their health, a chance to harden up before returning to the normal eight-hour working day.

FOR YOUR PROTECTION

The Wisconsin Medical Journal is owned and published by the State Medical Society. Those

who are directly responsible for its publication from month to month have many duties of which the membership at large may know but little.

We take this opportunity to call the attention of our readers to the policies of this Journal in accepting advertising. Observance of the principles listed below may deprive your Journal of a considerable annual income but assures you of the fact that every advertiser in the pages of this Journal has a standing and an integrity which is unquestioned. The management of the Journal does not claim to be infallible in passing upon advertisers and their advertisements but a care is exercised that should mean much to the physician who desires to use only services and products of reputable houses.

The principles follow:

1. All medicinal preparations advertised must be accepted by the Council on Pharmacy and Chemistry for "New and Nonofficial Remedies."
2. No advertisement will be accepted which, either by intent or inference, might result in deceiving, defrauding or misleading the reader.
3. Extravagantly worded copy or sweeping superlative claims are subject either to revision or rejection.
4. Statements disparaging competitors' goods are not permissible.
5. Illustrations of a suggestive nature, or vulgarly worded copy, are subject to revision or rejection.
6. Statements indorsing any medicinal or dietetic product will not be published unless with the written permission of its author. No indorsement or quotation from the writings of a physician will be permitted in advertisements after his death.
7. In the advertisements of books, statements will not be permitted which claim that any book is superlative in its field.
8. Advertisements of books on sexual subjects and venereal diseases must conform with the requirements of good taste in display, head lines and in text matter.
9. In the advertising of books, quotations from book reviews or from individual physicians may be used, provided the written consent of physician to such use is presented.
10. No financial advertisement will be published in which extraordinary returns are promised, nor are such statements as "absolutely safe" permissible.
11. Advertising of infant foods must conform to established fact as represented by consensus of statements in well recognized textbooks and periodical articles on infant feeding.
12. No advertisement of infant foods will be accepted which reflects unfavorably on breast milk, or on properly modified cow's milk.
13. Advertisements of medical journals carrying announcements of proprietary medicines not approved by the Council on Pharmacy and Chemistry will not be accepted.
14. Commercial laboratories which are conducted in an ethical manner may be advertised.
15. Commercial laboratories must limit their services to laboratory diagnostic procedures, and must not engage in diagnosis and treatment of disease of patients coming directly to the laboratory. The provision of special facilities at the laboratory for the use of physicians in the administration of remedies, or for the withdrawal of specimens, is considered a violation of this clause.
16. Laboratories may state the names of the permanently employed personnel, including consultant staffs, provided such consultants actually function.
17. Advertisements will be accepted for products which are official in the United States Pharmacopoeia or National Formulary if they are marketed under the official name, and if no unestablished therapeutic claims are made for them.
18. General or institutional advertisements of pharmaceutical or biological firms will be accepted provided: (1) that the firm's business is not chiefly that of handling unaccepted proprietaries, or (2) the firm deals in the main with official preparations.
19. Advertisements of tooth paste, cosmetics and soaps shall be limited to claims as to composition, and well recognized fact. The interpretation as to specific virtues of the product dependent on composition must be substantiated by acceptable evidence.

THE JOURNAL BOOK SHELF

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1923. Cloth. Price, postpaid, \$1.00. Pp. 72. Chicago: American Medical Association, 1923.

Peculiarities of Behavior. By Wilhelm Steel. Authorized English version by James S. Van Teslaar. In Two Volumes. Boni & Liveright, New York, 1924. Price, \$8.50.

The Primitive Archaic Forms of Inner Experiences and Thought in Schizophrenics. By Alfred Storch of Tubingen. Translated by Clara Willard, Librarian, St. Elizabeth's Hospital, Washington, D. C. Nervous and Mental Disease Publishing Company, Washington, D. C.

A Clinical Guide to Bedside Examination. Rebman Company, New York:

Diabetes. By Philip Horowitz, M. D., 219 pages, cloth. Paul B. Hoeber, Inc., New York, 1924. 34 illustrations.

Dislocations and Joint Fractures. By Frederic J. Cotton, A.M., M.D., F.A.C.S., (Second Edition, Reset.) W. B. Saunders Co., 1924.

To Lectures on Gastric and Duodenal Ulcer. A Record of Ten Years' Experience. By Sir Berkley Moynihan Leeds, John Wright and Sons, Ltd., Bristol. Wm. Wood & Co., New York.

The Medical Clinics of North America. (Issued serially, one number every other month.) Volume XIII, Number 1, July, 1924. By Internists of New York City. Octavo of 426 pages with 106 illustrations. Per Clinic year (July, 1924, to May, 1925). Paper, \$12.00 net. Cloth, \$16.00 net. Philadelphia and London. W. B. Saunders Company.

International Clinics. Volume II. Thirty-fourth Series, 1924. J. B. Lippencott Company, Philadelphia and London.

Eat Your Way to Health. By Robert Hugh Rose, A.B., M.D., 12 mo. cloth. 246 pages, \$2.00 net. Funk & Wagnalls Company, Publishers, New York.

Manual of Gynecology and Pelvic Surgery for Students and Practitioners. By Roland S. Sheel. Second Edition. Published by P. Blakiston's Son and Company, 1012 Walnut Street, Philadelphia, Pennsylvania.

Mind and Medicine. By Thomas W. Salmon, M.D., Professor of Psychiatry in Columbia University. From the Columbia University Press, New York, 1924.

Modern Methods of Treatment. By Logan Clendenning, M.D., Assistant Professor of Medicine and Lecturer on Therapeutics, Medical Department, University of Kansas. Illustrated, 692 pages. Cloth. Price, \$9.00. The C. V. Mosby Company, St. Louis, 1924.

Food for Health's Sake—What to Eat. By Lucy H. Gillett, A.M., Superintendent of the Nutrition Bureau of the New York Association for Improving the Condition of the Poor.

The Quest for Health—Where It Is and Who Can Help Secure It. By James A. Lobey, Administrative Secretary, National Health Council; Associate Editor of the American Journal of Public Health.

The Young Child's Health. By Henry L. K. Shaw, M.D., Clinical Professor of Diseases of Children, Albany Medical College, Formerly President American Child Hygiene Association.

The Human Machine—How Your Body Functions. By William H. Howell, Ph.D., M.D., L.L.D., Sc.D., School of Hygiene and Public Health, Johns Hopkins University.

Love and Marriage, Normal Sex Relations. By Thomas Walter Galloway, Ph.D., Litt.D., Associate Director Department of Educational Measures, American Social Hygiene Association, New York.

Taking Care of Your Heart. By T. Stewart Hart, A.M., M.D., President of the Association for the prevention and Relief of Heart Diseases.

The Expectant Mother, Care of Her Health. By Robert L. De Normandie, M.D., F.A.L.S., Instructor in Obstetrics, Harvard Medical School.

The Venereal Diseases. Their Medical, Nursing and Community Aspects. By William Freeman Snow, M.D., General Director American Social Hygiene Association.

Tuberculosis—Nature, Treatment and Prevention. By Linsly R. Williams, M.D., Managing Director, National Tuberculosis Association.

Maternity Nursing in a Nutshell. By E. H. Wickham, R.N. Published by F. A. Davis Co., Philadelphia, Pa., 1924.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

General Medicine, Practical Medicine Series. The Year Book Publishers, Chicago, Ill.

Progress in the conquest of diphtheria and of measles is heralded as one of the outstanding achievements of the year 1923 in the introductory chapter of the 1923 volume of General Medicine in the Practical Medicine series issued by the Year Book Publishers of Chicago. "Taken all in all," says Dr. George H. Weaver in the closing sentence of this introduction, "we may feel that considerable addition has been made during the past year to the means at our disposal in preventing and curing infectious diseases."

After calling attention to the work that has been done in past years in immunization against certain diseases, the writer continues:

"At present efforts on an extensive scale are being made to subdue diphtheria by similar means. In spite of a marked reduction in the mortality from diphtheria through the use of diphtheria antitoxin, it remains one

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of the most deadly diseases of infancy and childhood. Almost insuperable obstacles had about discouraged sanitarians in seeking to reduce the fatality much farther my means heretofore employed, when the possibilities on immunization by injections of mixtures of diphtheria toxin and antoxin were brought forward.

"Continued reports of the feasibility of the use of such injections on a large scale have accumulated during the year. There is every reason to believe that the advocates of this method of immunization against diphtheria are simply justified in predicting that, if it is used as widely and generally as vaccination against small pox has been, there will also result an almost complete elimination of deaths from diphtheria.

"In some infectious diseases of unknown cause, the blood serum of persons who have recently recovered from an attack of the disease has been administered, with apparent protective and curative results. Accumulating reports of the protective power of serum of convalescent measles patients seem to leave little doubt that it is possible to protect infants and young children from measles by this simple means during the first years of life in which most of the deaths from this disease occur."

The 1923 volume of "General Medicine," like its predecessors, needs but little comment. The basic idea of the series, namely that of culling current medical literature and giving to the reader the latest opinion on and research in every disease, has proven of inestimable value to the general practitioner. Books of this type are especially valuable to the great body of medical men who do not have the advantage of a medical library where current journals can be consulted.

The book is divided into the following four departments: Infectious Diseases and Endocrinology, edited by George H. Weaver, M. D., professor of pathology at Rush Medical College; Diseases of the Chest (excepting the heart), by Lawrason Brown, M. D., chairman of the medical board of Trudeau sanatorium, Saranac Lake; Diseases of the Blood and Blood Making Organs, by Robert B. Preble, A. M., M. D., professor of medicine, Northwestern University Medical School; and Diseases of the Digestive System and Metabolism by Bertram W. Sippy, M. D., professor of medicine, Rush Medical College; and Ralph C. Brown, B. S., M. D., associate professor of medicine, Rush Medical College.

Life Insurance Examination. Edited by Frank W. Foxworthy, P.F.B., M.D., Indianapolis. Published by the C. V. Mosby Company, 1924, cloth; 738 pages, 156 illustrations. Price, \$9.00.

Rarely does any work written for a specific purpose seem to fit that purpose as well as this volume.

Dr. Foxworthy, the editor, for many years a Life Insurance Medical Examiner, Referee and Medical Director has been Chairman of the Medical Section of the American Life Convention and President of the American Association of Medical Examiners. He is admirably fitted for the task he undertook in preparing this book. Various chapters have been contributed by many of the leading Medical Directors of the country as well as by other officials of well-known Life Insurance Companies.

The first chapters of the volume are devoted to a history of life insurance examination, industrial, group and fraternal insurance; succeeding these, the relation of the agent to the medical examiner, the organization of the medical department and chapters on the Medical Director Referee and Examiner are presented.

The remainder of the book tells in detail what medical examiners should know before conducting an examination, how to make one and discusses many interesting and important problems of the physician interested in insurance work.

This book is of the utmost value to all medical examiners. —W. A. M.

Diseases of the Chest and the Principles of Physical Diagnosis. By G. W. Norris and H. R. M. Landis. Third Edition. W. B. Saunders Co., Philadelphia, 1924.

A revision of this standard work presents certain additions to the previous editions which have already won universal favor as the standard texts for diseases of the chest in the English language. Treating the subject from the fundamental physics through the normal anatomy and physiology to the pathologic anatomy and physical signs implies an orderly approach and close attention to continuity of subject matter. Only once do the authors seem to deviate from this plan, namely in detaching the chapters on the examination of the circulatory system from diseases of this system. To the reviewer this dissociation breaks the force of the text. As in previous editions the wealth of illustrations, and the unusually well prepared frozen sections constitute strong features in the presentation of the subject.

Again the note of caution is struck, if not overemphasized, in regard to the shortcomings of X-ray diagnosis in early pulmonary tuberculosis. Conservatism should be observed in this relation, particularly in view of the profession's tendency to depend blindly on roentgenologic findings; but the authors leave practically no choice to the reader in their rather sweeping condemnation of the method. Too much credit cannot be given for the unwavering support of physical diagnosis at a period, when shortcuts and laboratory methods tend to relegate the painstaking physical examination to the realm of medical disorders. Perhaps it is this thought which has influenced the authors in minimizing the importance of X-ray in the diagnosis of pulmonary tuberculosis.

Omissions and differences of opinions as to the relative importance of included matters are bound to occur in such a comprehensive volume. For example, no mention is made of the factor of tracheal ulceration and perforation in the causation of interstitial emphysema. Besredka's complement fixation work is not considered in detail. Of course no just estimate of its value is possible at this time. One feels that venous pressure and direct capillary observations warrant somewhat greater space. The additions to the electrocardiographic section are excellent.

The new edition includes a total of about 50 extra pages of subject matter. A discussion of unusual conditions as Ayerza's diseases and pulmonary ascariidiasis

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has been added. The section on foreign bodies in the air passages has been profitably enlarged. Tracheal affections receive more attention than in previous editions. The revised index is a great improvement. Indeed the text is almost indispensable to the practitioner. The authors and publishers are to be congratulated on such an able work.

—W. S. M.

The Medical Clinics of North America. (Issued serially, one number every other month). Volume VII, Number VI, May, 1924. By Internists of McGill University, Montreal, Canada. Octavo of 306 pages with 49 illustrations and Complete Index to Volume VII. Per Clinie year (July, 1923, to May, 1924): Paper \$12.00 net. Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

These volumes are always of great interest both to the general practitioner and the internist and this particular one contains even more than the usual amount of valuable clinical information. A great variety of cases are ably presented by McGill foremost internists.

One wishes that all physicians might read Dr. C. Gordon Campbell's discussion of "Acne Vulgaris," what Dr. A. T. Henderson has to say "On the Successful Treatment of Asthma and Related Conditions" (especially interesting and timely). Dr. Fred H. Mackay's clinic, "Pituitary Dysfunction" and that of Dr. J. A. Nutter on "A Study of Sciatic Pain" are exceptionally good. Space forbids the specific mention of the twenty odd other excellent clinics.

—W. A. M.

Operative Surgery. Covering the Operative Technic involved in the operation of general and special surgery. By Warren Stone Bickham, M.D., F.A.C.S. Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York, Former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5400 pages with 6378 illustrations, mostly original and separate Desk Index Volume. Volume 4 containing 842 pages with 722 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription only. Index Volume free.

This volume dealing with surgical problems of the pericardium, heart, abdomen and contents is like the preceding three volumes of his work, a thorough, comprehensive and masterly exposition of the various subjects offered, profusely illustrated, definitely arranged and accurately described. Each operative procedure is undertaken and is presented in a logical and sequent manner with the result that on consulting the text, one has placed before him his surgical anatomy, landmarks, technical details and a host of original comments by the author which show the wisdom and experience gained by years of a broad, versatile application.

—T. W. T.

First Steps in Organizing a Hospital. By Joseph Weber, M.A. The MacMillan Company, New York, 1924.

As Editor of "The Modern Hospital" Mr. Weber is exceptionally qualified to write this volume of "The Modern Hospital Library Series." The first chapters discuss in a clear, concise form the ground work necessary for the successful organization of the hospital, par-

ticularly a community hospital. He discusses at length problems of finance, election of officers, and the responsibilities of the governing ward and of the various auxiliary committees. The book contains numerous appendices in which are presented excellent examples of charts for general organization, forms of certificate of incorporation, hospital charters, hospital by-laws, functions of the architect, list of necessary hospital employees, annual hospital earnings and expenditures.

The book will be of great aid to any group contemplating the formation and erection of a modern hospital.

—R. C. B.

Hospital Organization and Operation. By Frank E. Chapman.

The book shows that Mr. Chapman has a keen insight into the needs of a modern hospital and contains numerous excellent suggestions for the correction of many existing faults.

The chapter on "the principles of administrative organization" shows that thought has been directed into the future needs and describes in detail not only the duties of the various administrative heads, but also detailed methods for managing same. It also contains numerous illustrations.

The chapters discussing the medical staff, special diagnostic and therapeutic services, nursing and dietary are all written with the idea of developing these services so that they will be of the greatest good to the patient.

In short, it is an invaluable book for any one interested in hospital problems whether he be old or new in this work.

—R. C. B.

The Internal Secretions. Weil-Gutman.

This book presents an interesting summary of our present day knowledge (not theory) in regard to the effects of the internal secretions on growth and development in their important phases.

The interrelationships are well brought out in early development (before puberty). There is free acknowledgment of sources of information by parenthetical mention of authors, but as there is no reference to titles or publications and rarely to dates, and no general bibliography you cannot readily consult original sources without further search.

It is refreshing to note that with a few exceptions no results are quoted except from the subcutaneous use of extracts or from surgical transplantations. The organo-therapeutic enthusiast must limit his therapy to the few well recognized dried extracts, namely—thyroid, ovarian, and pituitary. We find no evidence for such wild-cat measures as treating nephritis with nephritic substance or valvular disease of the heart with valve substance. The theoretical existence of an incretion for every organ and tissue is left to the commercial exploiter of products. This book is a summary of *facts*.

The chapters on Metabolism, Growth and Bodily Form and Reproduction are particularly well presented. The relationship between "Incretions" and "Vitamines" is discussed and what little we know of the chemistry of the Incretions is reviewed.

(Continued on page XX)

The Wisconsin Medical Journal

Volume XXIII

MILWAUKEE, NOVEMBER, 1924

Number 6

THE CHRISTMAS SEAL AND THE MEDICAL PROFESSION

TO THE PHYSICIANS OF WISCONSIN:

In these days of fakes, cults, and medical quackery, it behooves the medical profession to make special effort to show its appreciation of those forces which are active or interested in scientific medicine and to give them the heartiest of co-operation.

Wisconsin physicians have no closer ally than the Wisconsin Anti-Tuberculosis Association. Its splendid work in the field of preventive medicine in general and in combating tuberculosis in particular is recognized from coast to coast. Through its chest clinics, primarily developed to discover tuberculosis, the association is sending thousands of individuals to physicians and dentists for corrective work.

Again, as a leader in its campaign to promote periodic health examinations, it has done much to teach the people of Wisconsin the value of such examinations in the prevention of disease. Incidentally, this campaign has brought to the attention of physicians in forceful manner that there is a different professional attitude and technique required in the examination of persons in normal health, seeking an examination because they desire to keep that way, than is demanded in the examination of persons who come to the physicians because they know, or at least suspect, that there is something wrong.

For these activities and many others, the medical profession of Wisconsin owes a very deep and definite debt of gratitude to the association. In what better way can we show our appreciation of what the W. A. T. A. is doing to back up and support Wisconsin physicians than by taking an active part in the annual Christmas seal sale?

Your judgment and opinion are respected in your community. You show the way and others will follow. Talk, buy, and use seals this year. Every seal bought means another bit of cement in the structure of scientific medicine.

Yours as ever,



President, State Medical Society of Wisconsin.

ORIGINAL ARTICLES

RECENT PROGRESS IN THORACIC SURGERY*

BY CARL A. HEDBLUM, M.D.

Professor of Surgery, University of Wisconsin
MADISON

Surgery of the thorax may be said to antedate that of all other regions of the body. Empyema and pulmonary abscesses were recognized as disease entities by the ancients. Hippocrates described the succussion splash elicited in the presence of fluid and air in the pleural cavity, and recommended intercostal drainage, and washing the cavity with wine and honey. The medical literature from this time contains many references to this method of treatment, and cases are cited.

Until the beginning of the aseptic era, surgery of the thorax may be said to have kept pace, at least, with what little development there had been in other regions of the body. Antisepsis and anesthesia made the development of modern surgery possible, but gave especial impetus to the development of abdominal surgery. The rapid increase in our knowledge of disease, the new diagnostic methods, the growing variety of diseases found amenable to surgical treatment, and the perfection of new operations and technic, not only justified, but necessitated the present day specialties of the eye, ear, nose and throat, the extremities, the genito-urinary organs, and the central nervous system.

In this march of progress, surgery of the thorax was the last to be developed, and except in a few well organized medical centers, can scarcely be said to have attained the dignity of a specialty. It would seem pertinent to the further consideration of the subject to inquire into the reasons why progress in this field has lagged.

The explanation may, I believe, be found largely in the fact that the inherent problems of surgery of the thorax differ fundamentally from those of surgery of other parts of the body. Surgery of the thorax involves special problems inherent in structural and functional relationships. The thoracic organs are encompassed by a bony framework which makes them relatively inaccessible. Besides containing the great vessels and important nerves, the thorax is the seat of two of the three

organs which constitute "the tripod of life." Many of the other organs can be entirely dispensed with. The function of the gastro-intestinal tract may safely be kept in abeyance for days, but that of the heart or lungs cannot be interfered with, even momentarily, without danger to life. The diagnostic difficulties are often so great as to tax the combined efforts of the internist, radiologist, endoscopist, and surgeon. The technical problems are, in many respects baffling, and differ in important features from those of other parts. Special procedures, involving the use of the endoscope, differential pressure, and other methods, require expert knowledge and skill. Acute disease processes of vital organs are in themselves often of grave import, and may preclude an operation of any magnitude. Limitation in diagnostic methods, both as to the nature and localization of a lesion, may result in an operation not best suited to the condition, or in one poorly applied. Recognition of such limitations tends to carry expectant treatment beyond the indications for it, and to operative procedures only partly effective. For the resulting chronic processes extensive operations are often necessary, entailing much sacrifice of structure and function, and a relatively high mortality.

The greatest single obstacle to the development of thoracic surgery has been the disturbance of respiration and circulation, which is produced most typically when the normal pleural cavity is opened. It is an elementary physiologic fact that respiration is conditioned by the so-called negative intrapleural tension; therefore, open pneumothorax, which equalizes the pressure inside and outside the lung, stops respiration on the affected side. If the evidences brought forward, especially by Graham, is accepted, that in the normal pleural cavity the mediastinal structures are so mobile that pressure changes on one side are transmitted through them to the other, then the respiratory mechanism on the opposite side must also be interfered with. The venous return, depending in part on the aspiratory action of respiration, is retarded. With regard to the general effect on the patient and the consequent risk involved, there has been and still is much difference of opinion, owing, in large measure, to the fact that certain patients have had wide openings, into the pleural cavity, traumatic or operative, without showing serious untoward effects. Based on such observations, sweeping statements are made, especially since

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the Great War, to the effect that open pneumothorax need not be feared that the chest cavity can be widely opened and explored just as freely as the peritoneal cavity, and that it is wholly unnecessary to resort to special differential pressure appliances for the maintenance of respiration. It is also often asserted, or implied, that further progress in thoracic surgery depends, in large measure, on the dispelling of this groundless fear of open surgical pneumothorax.

I do not believe that further advance will be attained by ignoring physiologic laws, but that it is predicted rather on the recognition of the limitations imposed by these laws, and on devising practical means for overcoming such limitations. It is true that, under certain conditions, open, unilateral, surgical pneumothorax does not lead to marked, untoward consequences, but it by no means follows that this is the rule. In many cases in which it has been said that open surgical pneumothorax has produced no ill effects, various technical procedures; such as partial obturation of the opening, or traction on the exposed lung, have counteracted its bad affect by aiding the other lung in maintaining respiration. It is, however, the vital capacity of the patient in relation to the size of the unilateral opening and the relative integrity of his circulatory function that determines the relative amount of hazard that the open pneumothorax involves. The wounded soldier recovered in spite of his surgical pneumothorax, thanks to his large reserve vital capacity and his undamaged heart. The sick soldier died when a small opening was made in the thorax to drain an acute streptococcus empyema because of his relatively low vital capacity and his damaged heart. Civil thoracic surgery has to do in large measure with patients who have a similar lowered vital capacity and impaired circulatory function. Surgical pneumothorax means an added operative risk, the magnitude of which is in proportion to the pre-existing impairment of these vital functions, and it means an increased incidence of post-operative complications.

Regardless of theoretic considerations, the fact remains that pneumothorax produced on opening the pleural cavity has been the greatest obstacle to the development of thoracic surgery. To overcome it and to maintain approximately normal physiologic relationships, differential pressure anesthesia was introduced. Without going into

the details of this most interesting development, it may be said that the simple intrapharyngeal positive pressure anesthesia, administered by means of a gas oxygen apparatus, has supplanted the cumbersome differential pressure cabinets, and also the intratracheal insufflation method. By means of a gas oxygen apparatus, oxygenation of the blood can be maintained with a relatively low degree of positive pressure and the partly collapsed lung can be re-inflated when the thorax is to be closed. It can be said, therefore, that the obstacle to the development of thoracic surgery, incident to open pneumothorax, has been largely overcome.

We have made important progress along other lines. We have added greatly to our knowledge of the disease of the thoracic organs and their treatment by the study of the living or surgical pathology, by better correlation of pathologic and clinical findings, by perfection of diagnostic methods, particularly roentgen ray examination, by the results of animal experimentation, and by improved technical procedures. We have laid down certain fundamental principles for guidance in treatment. We have established the fact that a large open pneumothorax is to be avoided in the presence of a mobile mediastinum. We are beginning to realize the importance of preliminary preparation of the patient, of the selection of operation suited to the lesion for which it is to be performed, and of operation in several stages. We are learning the value of, and the indications for rest, intelligent exercise and properly proportioned diet, and the importance of the vital capacity test, both as a measure of the patient's general condition and as a criterion of the results following operation. It is not only the healing that counts, but the cost it represents in impairment of structure and function.

Among the methods of treatment that have developed during the last two decades, the following may be mentioned particularly: regional and differential pressure anesthesia, therapeutic pneumothorax, extrapleural collapse and phrenicotomy in unilateral, pulmonary tuberculosis, lobectomy, cautery excision and extra-pleural collapse in pulmonary suppuration, mediastinotomy, cardiotomy, and combined laparotomy and extra-pleural thoraco-pericardiotomy. The closed method of draining empyema and the antiseptic solution irrigation have been revived, particularly following the introduction of Dakin's solution.

The military surgery of the Great War brought out important methods in dealing with traumatic conditions, such as the Dakin's solution treatment, the control of hemorrhage from the lung, hemothorax, localization and an extraction of foreign bodies from the thorax, the necessity of the combined thoraco-abdominal approach in case of injuries in the region of the diaphragm, and demonstrated a remarkable degree of tolerance of healthy young persons to extensive thoracic operations. Even a brief and fragmentary review of the present status of treatment of specific disease conditions provide ample evidence of progress.

EMPHYEMA

For purposes of treatment we distinguish between the streptococcus and other varieties of pyogenic infections, and distinguish both from the tuberculous. Early in the acute streptococic type of case, aspiration, or the closed method of drainage alone is permissible; this lesson was learned at a grievous cost, and it must not be forgotten. In the other pyogenic forms the alternatives of the open and closed methods of drainage may be chosen. I do not advocate any method in particular, but in my experience the closed method, with efficient irrigation, has been very satisfactory. Physiologic function is improved by producing re-expansion of the collapsed lung, and by relieving the pressure of the mediastinum on the opposite lung. The open operation disregards physiologic function in that it leaves the lung in status quo or collapsed, and the cavity under atmospheric pressure, which, in case of a mobile mediastinum, reduces the normal negative tension on the opposite side. The closed operation is easily performed with the patient undisturbed in his own bed; it is painless under efficient local and nerve block anesthesia, is clean, and does not produce shock. The open operation usually involves the ordeal of transporting the patient to the operating room, which, combined with the thoractomy, the sudden evacuation of pus and the open pneumothorax, may turn the tide against an already critically ill patient. The closed method followed by irrigation is more efficient as a method of drainage because the removal of pus is not left to gravity, but the cavity is washed and aspirated clean, and the necrotic material and fibrin dissolved and carried away. Besides, the bactericidal action of the fluid sterilizes the walls of the

pleural cavity, lessens toxic absorption, and promotes healing. The open method depends for the counteraction against pneumothorax, as has been aptly said, largely on a pus soaked dressing or on a great variety of valve devices, the number and variety of which suggest their inefficiency. If irrigation is used in connection with open drainage, various precautions are necessary to insure the irrigation of all parts of the cavity. This condition is fulfilled automatically by the closed method simply by filling the cavity. In case of large bronchial fistulas, open drainage is necessary and it may also be practical following exploration for foreign bodies, osteomyelitis, or multilocular cavities.

One of the greatest recent advances in the treatment of chronic empyema is the use of Dakin's solution as a means of obliterating the cavity, and failing in this, as a means of preoperative preparation. If the solution is used intelligently, large cavities, in chronic cases, may be reduced from 50 to 90 per cent or more. In the meantime the patient gains weight, and improves with a promptness and to a degree often quite extraordinary. He comes to operation in relatively good condition; the field is practically sterile and the resultant sacrifice of structure and limitation of function reduced to a minimum. In the cases of massive collapse of long standing, with fibrosis preventing re-expansion of the lung, an extensive operation can be performed in stages, the irrigations being kept up in the meantime. By a combination of such methods, shock can be eliminated and the mortality due to all causes, including huge cavities, and extensive damage to vital organs from prolonged suppuration, has been reduced to less than 2 per cent. The obliteration of concomitant, large, multiple bronchial fistulas can usually be accomplished in a clean field by silver nitrate cautery, or by simple plastic procedures. In a word, we can point to progress in the treatment of empyema.

PULMONARY SUPPURATION

Pulmonary suppuration in many of its forms continues to be one of the most baffling problems confronting the thoracic surgeon, but a long step forward has been taken in the increasingly accurate differentiation into pathologic types, and in the selection of methods of treatment suitable for

each. The prevalent diversity of opinion with regard to treatment is evidence of a growing interest in the subject. In cases of pulmonary abscess, expectant treatment, bronchoscopic lavage, pneumothorax collapse, drainage, lobectomy, and cauterly extirpation have their advocates. Briefly, it may be said that each form of treatment has its indications, but that no one form is suitable to all. Expectant treatment, including postural drainage, is indicated in cases of early acute abscess, showing evidence of improvement during a few weeks' observation, or at least not manifesting a downward trend. However, failures are numerous, as evidenced by the large proportion of chronic cases observed with extensive multilocular cavities and secondary bronchiectasis. In the Mayo Clinic more than two-thirds of all such cases are of this chronic type. Pneumothorax collapse seems a rational treatment in acute, centrally located abscess, and drainage, in peripherally situated cavities. It is difficult to drain centrally located abscesses through the chest wall, and the risk of hemorrhage is great, but in peripheral abscesses, the lung is usually adherent, and thus collapse is prevented; if collapse is achieved, there is the risk of perforation of the abscess into the pleural cavity. To treat such an abscess expectantly is irrational. Lobectomy or cauterly extirpation seem needlessly radical, in view of a recently reported series of cases with the low mortality of under 10 per cent. In cases of chronic, multilocular, bronchiectatic abscesses, extirpation seems to be the only curative procedure, and cauterly excision to promise a lower mortality than lobectomy.

The most discouraging feature in the consideration of the treatment of bronchiectasis is the relative frequency of bilateral involvement. Of 400 cases observed in this Clinic, the condition was bilateral in 28 per cent, and distribution uncertain in 36 per cent. In the majority of cases, however, the condition was probably unilateral at the onset, which suggests an increasing operability by early recognition and prompt treatment. Expectant treatment, postural drainage and bronchoscopic lavage would seem, on pathologic grounds, to be palliative only. Early removal of an etiologic foreign body in a bronchus, before the bronchi have become extensively involved, is curative. Lobectomy has yielded a high mortality. Graded extrapleural thoracoplasty, in my experi-

ence, has been without mortality, and there has been a high percentage of improvement, approximating cure. Secondary lobectomy following thoracoplasty has been reported without mortality. Cauterly lobectomy, because it does not have to take account of adhesions, may prove to be the additional treatment necessary for complete cure if patients are not sufficiently improved by thoracoplasty.

In multiple abscesses and combined abscess and bronchiectasis with associated pneumonitis, extirpation, in grade stages, seems of great promise if secondary hemorrhage does not prove too frequent and serious.

PULMONARY TUBERCULOSIS

The principle of rest in the treatment of tuberculosis seems to be well established; in cases of pulmonary tuberculosis this is accomplished by pneumothorax, or in case of pleural adhesions, by extrapleural collapse. Pneumothorax collapse is also being carried out in an increasing number of cases throughout the country, but none of us has had a large experience with extrapleural collapse. We are far behind our colleagues* on the Continent in this respect. Just why the development of this operation should be tardy in this country is not clear, but such seems to be the case. In my opinion the next few years will witness a widespread adoption of surgical collapse in unilateral pulmonary tuberculosis.

DISCUSSION

Among other conditions in which definite progress in treatment has been made, may be mentioned tumors of the chest wall and lung, lesions of the esophagus, both benign and malignant, pericarditis, mediastinal suppuration, diaphragmatic hernia and subdiaphragmatic abscess.

To attempt to forecast the future of thoracic surgery would be presumptuous and unprofitable.

A consideration of lines of development that seem promising may, however, be worth while. There is need for propaganda directed towards prevention of aspiration infection of the lung, and for the prevention of chronic processes, by more prompt and efficient treatment of acute conditions. Something may be possible in the way of prevention of empyema by prompt aspiration of serous effusion and injection of antiseptics, possibly combined with the intravenous administration of anti-

septics. Much remains to be learned in the study of the pathology, the types of bacterial infection in pulmonary suppuration, the problems involving the mechanism and nature of pleural shock, of pleural effusion and absorption in different degrees of pulmonary collapse, and in the presence of different types of infection, the part played by infection, the part played by impeded venous return in the disturbances associated with pneumothorax. Problems involving treatment are many. A satisfactory technic for producing pleural adhesions, except by suture and by infections, has not been found. Lobectomy is not as yet a safe operation. Resection of the esophagus has still to be put on a practical basis. The extent and practicability of cardiac surgery remain a question. The results of treatment of purulent pericarditis have been unsatisfactory. Much remains to be done in the standardization of operations for diaphragmatic hernia. The question of applicability of the cautery and electrothermy to thoracic surgery is just being raised.

In conclusion it may be said that diagnosis and treatment of the diseases of the thoracic organs present complex* problems demanding combined intensive study by the internist, the surgeon, the endoscopist, the roentgenologist, and the experimental worker, that surgery of the thorax involves special problems of a nature as difficult and complex as that of any other region, and that specialization in this region may as reasonably be expected to further and hasten progress as in any other. Sufficient progress has been made in dealing with its problems to give us confidence as to its further development.

OBSERVATIONS ON THE DIPHTHERIA CARRIER AS AN AGENT IN THE SPREAD OF DIPHTHERIA.

A study was made by F. M. Meader, Detroit (Journal A. M. A., Oct. 11, 1924), of 432 cases of diphtheria. There were forty-six secondary cases, that is, patients who developed the disease within the incubation period, after exposure to a known case of diphtheria. This makes a total of 478 cases of diphtheria. Associated with the cases mentioned were 1,853 contacts, and among these contacts were 197 diphtheria carriers. Among the contacts of cases quarantined at home, the number of diphtheria carriers was greater by thirty-one than was the incidence among the contacts of diphtheria patients who went to the hospital. Associated with the 197 diphtheria carriers, were 579 contacts, 265 of whom had been immunized. However, in this group of contacts were 136 primary cases of diphtheria and twenty-eight secondary cases, making a total of 164 cases of diphtheria. Subtracting 579 contacts from 1,853 was a group of 1,274 contacts among whom were no diphtheria carriers. Subtracting 164 cases of diphtheria from 478 cases gave a group of 314 cases of diphtheria. It would appear that diphtheria patients are more likely to be agents in the spread of diphtheria than are carriers, but it cannot be denied that carriers who harbor organisms capable of producing the disease may be very potent agents in the spread of infection. However, Meader believes that carriers of diphtheroids who have not been associated with clinical cases of diphtheria may be disregarded from a public health point of view.

THE INDICATIONS AND CONTRA-INDICATIONS FOR THE USE OF COMBINED SPLEEN AND MARROW IN ANEMIC CONDITIONS*

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The unsatisfactory results so often obtained in the symptomatic treatment of secondary anemias by means of iron and arsenic have stimulated search for a more reliable form of medication in these conditions. Whipple and his associates¹ have furnished experimental evidence that iron and arsenic have little or no effect on hemoglobin regeneration after hemorrhagic anemia, and Musser² has confirmed this observation. Germanium dioxide has been suggested by Hammett and his co-workers,³ but clinical and experimental studies have failed to substantiate the claims made for it.⁴ In addition, its cost is a serious limitation to its general use. Transfusion has exacting technical requirements, and is more of an emergency measure.

Our attention was directed to the use of desiccated spleen and red bone marrow by a consideration of the theories of blood formation and destruction. A long series of experiments in rabbits, dogs, and normal humans convinced us that these agents possessed the power of stimulating red blood cell production to a marked degree. Moreover, it was definitely shown that they were more efficient as hemopoietic agents when used in combination than when employed singly. When administered by mouth, they were found to be effective in increasing the number of circulating erythrocytes and the hemoglobin percentage. While the rise in hemoglobin content was not as rapid or as marked as in the case of the number of the red cells, it was better sustained when administration was stopped. Adequate control experiments, and determinations of other factors, as blood volume, showed that our findings were actual, and not due to blood concentration. As the number of reticulated red blood cells was found to be increased under the influence of the combined materials, a stimulation of blood pro-

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duction was indicated.⁵ The rise in the number of reticulocytes, however, was not found to be sufficient to account for the total increased number of red blood cells. The discrepancy has been partially explained by the experimental observation that the resistance of the erythrocytes to hypotonic saline solutions is considerably increased after the administration of the spleen and marrow compound.⁶ It may be expected, therefore, that the erythrocytes remain in the circulation longer than normally, after the administration of this compound. The amounts of lecithin-phosphatids and iron estimated in the combined materials⁷ would seem to be too small to account for the effects, so that a true hormone activity was suggested. Finally, no untoward accessory actions were noted.

It has been stated⁸ that experience with numerous failures of vaunted hemopoietic agents warns against undue early enthusiasm when some new finding is announced. The use of red bone marrow, however, in the symptomatic treatment of anemia is by no means new. It was recommended by Galen,⁹ and indeed, was in widespread general use during the last decade of the past century, as the clinical reports of Mann,¹⁰ Billings,¹¹ and Hunt¹² testify. However, its use was empirical except for the isolated experimental report of Danilewsky and Selensky,¹³ who found that it increased the erythrocyte count in animals. The gist of these early reports on the use of bone marrow in anemia was that it was helpful in secondary anemia, but of no value in pernicious anemia. Spleen preparations have been little used clinically, to judge from the number of reports made, but a vast amount of experimental work has been done with regard to the relation between the spleen and blood formation. This work has been both of a direct and an indirect nature. After the direct administration of splenic substance, many independent workers¹⁴ have noted an increase in the number of circulating erythrocytes and in the hemoglobin content. By the indirect method of studying the effects of splenectomy on the blood picture, most independent observers agree with Krumbhaar and Musser¹⁵ that a transient anemia follows, accompanied by evidences of a diminution in blood formation, due to the loss with the spleen of a substance which normally stimulates blood cell production.

It does not seem to have been noted, prior to our

experimental studies, that the combination of splenic substance and red bone marrow is a more efficient hemopoietic agent than either separately. It is true that Carpenter¹⁶ had observed when splenic substance alone did not give the expected clinical improvement, in cases of typhoid and malaria, that the addition of bone marrow might bring about the desired result. He did not, however, make any notations on the blood picture changes, but confined his attention to the gross clinical condition.

As a result of experimental studies, then, it may be concluded that (a) red bone marrow and spleen are effective in increasing the actual number of circulating red blood cells and hemoglobin, and as such, are more effective in combination than singly; (b) they are capable of oral administration, and (c) they have no untoward accessory actions.

INDICATIONS AND CONTRA-INDICATIONS

The very experimental facts upon which the clinical uses of desiccated spleen and red bone marrow in anemia are based, clearly indicate that this form of therapy is symptomatic only, and in no sense a "cure" for anemia. We desire plainly to emphasize this point. *A case of anemia may only be considered "cured" when the cause of the anemia has been discovered and removed.* The combination of desiccated spleen and red bone marrow will stimulate normal blood making centers and extend them, thus leading, in the normal individual, to an increased production of erythrocytes and hemoglobin. When one applies such a fact clinically to an anemic condition, one should know something of the mechanism producing the anemia in that particular case.

In general, there are two causes for anemia: (a) increased blood loss or destruction, or (b) diminished blood production. After the cessation of an acute hemorrhage, blood regeneration will customarily take place by an extension of the blood making centers. The administration of combined spleen and marrow may assist in this process, but in order to provide material for the blood formation, some attention should be paid to diet, as emphasized by Whipple, Hooper, and Robscheit,¹ particularly with respect to green vegetables, egg-yolks, and meat. In a chronic continued hemorrhage, however, as with hemorrhoids, a great load may be thrown upon the blood making centers, so that they tend to become quiescent, even with the

cessation of bleeding. Such erythrogonic centers may lie dormant for a long while after the apparent cause of the anemia has been eliminated, often baffling analysis of the slight chronic anemia condition. These centers, however, have not been injured, and are normal in their reactions. Here, with a therapeutic measure available definitely known to be able to stimulate normal blood production, such as the spleen and marrow combination, a beneficial response will be secured from its use.

In excessive blood destruction, two conditions may be met. In one, an anemia may be present secondary to an acute or chronic bacterial infection. This is frequently observed. In this case, the blood making centers are normal, and one is justified in using a therapeutic measure to stimulate them. The value of the combined spleen and marrow preparation is apparent here. The response is prompt and the effect beneficial. In the second condition, an unknown hemolytic toxin may be present, leading to that chronic hemolytic anemia generally referred to as progressive pernicious anemia. In this case, the toxin seems to have injured the blood forming organs, and they are not normal in their reactions. Embryonic and abnormal cells are produced, and there is evidence of great stress upon the erythrogonic centers. The use of a stimulating agency in this case is clearly irrational, and we have found, by experience, that it is detrimental to such a patient. It is simply placing an additional load upon the already over-burdened blood making centers, and it may be too much.

Several types of anemia due to diminished blood production may be observed. One has already been discussed in connection with the after effects of a long continued slight hemorrhage. In the true aplastic anemia, where defects are present in the erythrogonic centers, there is nothing left capable of responding to a stimulus. In such a case, the administration of the spleen and marrow combination would have no effect. Chlorosis, and the chlorotic kinds of anemia, seem to be associated with an inhibition of the blood making organs, which will not utilize iron in this condition for the manufacture of hemoglobin, unless it is present in excess. In these cases, the spleen and marrow preparation may give the required impetus to overcome the inhibition present, although the iron supplied by the medication alone

will be very slight. There is a peculiar type of anemia frequently observed subsequent to the cessation of menstruation in women who have gone through a period of menopause menorrhagia, in whom the blood forming organs seem to have become quiescent. These cases respond most favorably to the use of the combined spleen and marrow. Finally, in young infants, a type of anemia may be observed which is apparently due to dietary or hygienic irregularities in the first place, but which fails to disappear with an improvement in these factors. Here the erythrogonic centers also seem to be dormant, and they respond quickly and beneficially to the stimulus of the spleen and marrow preparation.

CLINICAL

The systematic treatment of anemia along the lines indicated above, has been in progress for the past 18 months in the hospitals and clinic of the University of Wisconsin, and for the past 9 months in various other hospitals under the supervision of physicians invited to co-operate with us in the appraisal of this therapeutic measure. Our first clinical report¹⁷ was preliminary to a detailed consideration of 65 carefully selected cases,¹⁸ in which 47 were moderately to markedly improved, and 18 slightly to not improved. These cases included many different types of anemia, among which were the only 2 definite cases of progressive pernicious anemia (as determined by autopsy) treated with the spleen and marrow combination by us. Both these cases responded to this treatment by a transient rise in the number of red blood cells followed by a considerable fall in their number. This atypical response may be of diagnostic service in a very doubtful case. Other cases in this series, in whom slight or no improvement was to be noted, were anemic conditions secondary to malignant endocarditis, to hemolytic jaundice, to advanced pulmonary tuberculosis, to post-operative menopause, and to advanced gastric carcinoma.

Our subsequent experience has fully verified the observations recorded in this detailed report. In view of the indications for the use of the combined marrow and spleen, as discussed above, we are now limiting its administration to such patients as would seem, upon careful diagnosis, to be in need of a direct stimulus to the erythrogonic centers. Consequently, we are noting a much higher per-

centage of marked improvements in our series than we found at first, when the therapy was tried indiscriminately in all types of anemia.

Several independent observers have compiled their findings on the value of the combined spleen and marrow therapy in various kinds of anemia. Kay¹⁹ has reported a series of 32 unselected cases of anemia encountered in general practice, in whom 3 patients showed absolutely no improvement under this form of treatment. These were cases of pernicious anemia, inoperable cancer, and acute myeloblastic leukemia, respectively. Five of Kay's 32 anemia patients were only slightly improved. These were 3 cases of senile anemias in women beyond the sixth decade, 1 case of advanced pulmonary tuberculosis, and 1 case of severe chronic arthritis of eight years' duration. The rest of Kay's cases were moderately to markedly improved by therapy with the spleen and marrow combination. Kay used practically the same criteria for judging improvement in a case that we used, namely, an increase in the number of erythrocytes of over 500,000, and a rise of more than ten points in the hemoglobin percentage, was considered a "moderate" improvement. While careful to point out the necessity for keeping a skeptical view point in the symptomatic treatment of anemia, Kay concluded that therapy with the combined spleen and marrow offers a greater promise of success than the use of iron or arsenic, and that it causes a more rapid improvement in the blood picture in secondary anemia than any other agency except transfusion.

Thalhimer²⁰ has studied a considerable number of hospital patients under this form of treatment for anemia, and his figures show a high proportion of improved cases. This would seem to be due to the fact that his patients were selected for treatment in accordance with the indications discussed above. In a small series of cases which were exhaustively studied, Waugh²¹ has secured results similar to ours. Fisher and Snell²² are reporting a series of cases of various types of anemia treated with the spleen and marrow combination, in which results comparable to ours have been found. Their work is of interest in connection with their observations on the effect of this form of therapy on anemic conditions secondary to tuberculosis. This investigation has been extended by Dunham,²³ who is reporting a series of 23 cases of anemia secondary to active pulmonary tuberculosis, in whom no

improvement in the blood picture could be secured by the use of various agencies such as iron, arsenic, quartz light and sun light, for a considerable period of time, in addition to rest and good food. Of these 23 cases, 2 were not benefited by the administration of the combined spleen and marrow, while 21 showed a distinct and consistent improvement.

In all these clinical studies, the desiccated spleen and marrow (combined in equal proportions by weight) was administered in 0.3 gram (5 grain) amounts, in tablet or capsule form, three times daily, before meals, with plenty of water. With improvement of the blood picture, the dosage was diminished at first to two capsules or tablets, and then to one daily. The preparation was withdrawn as soon as the erythrocyte and hemoglobin content of the blood remained at a constant level.

SUMMARY

The observations already recorded in the clinical use of combined spleen and marrow in anemic conditions fully justify the indications and contra-indications of this form of therapy as discussed above. Spleen and marrow compound stimulates red blood cell and hemoglobin production, and increases the resistance of the red cells in the normal organism. It is indicated whenever there is excessive red cell destruction, as in acute or severe chronic infections, or whenever the blood making function is inhibited. It is distinctly contra-indicated whenever the blood making centers give evidence of injury, severe strain, or abnormal function, as in progressive pernicious anemia, and it is valueless in aplastic anemia. It is desired again to emphasize the fact that this form of therapy is by no means a "cure" for anemia. Anemia can only be considered "cured" when the cause of the anemic condition has been discovered and removed.

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SPLEEN EXTRACT AND BONE MARROW IN THE TREATMENT OF SECONDARY ANEMIA*

BY DAVID FISHER, M.D.

and

MYRON W. SNELL, M.D.

MILWAUKEE

In a recent article, Leake and Evans¹ published a preliminary note on the original work done by them in the treatment of Anemias with red bone marrow and spleen, and among other things said that "it is desirable that independent clinical studies be made of the value of this preparation in the types of anemias mentioned, in order that proper appraisal be made of this therapeutic measure."

With this in view, we undertook an intensive clinical study of the use of Spleen and red bone marrow substance in various types of secondary anemias.*

The results obtained fully confirm those of Leake,² Leake & Leake,³ and Leake & Evans.⁴ The oral administration of "Spleenmarrow" in capsule form caused a rapid rise in the number of red cells with a more gradual rise in the hemoglobin content, the rise being fully sustained even after the administration was discontinued. The improvement in the blood picture was in the

*From the laboratories of the National Military Hospital, Milwaukee, Wisconsin.

¹Leake, C. D., and Evans, J. S.: "A preliminary note on the use of Red Bone Marrow and Spleen in the treatment of Anemia," *Wis. Med. Journal*, Vol. XXII, No. 7, Dec., 1923.

*The preparation used was Spleenmarrow (The Wilson Laboratories, Chicago, Illinois.)

²Leake, C. D.: "Hematopoietic Effects of Desiccated Red Bone Marrow and Spleen in normal humans," *Journal of Pharmacology and Experimental Therapeutics*, Vol. XXII, No. 5, Dec., 1923.

³Leake, C. D., and Leake, Elizabeth W.: "The Erythropoietic action of Red Bone Marrow and Splenic Extracts," *Jour. of Pharmacology and Experimental Therapeutics*, Vol. XXII, No. 2, Sept., 1923.

⁴Leake, C. D., and Evans, J. S.: "A Preliminary note on the use of Red Bone Marrow and Spleen in the treatment of Anemia," *Wis. Med. Jour.*, Vol. XXII, No. 7, Dec., 1923.

majority of the cases accompanied by a marked improvement in the subjective symptoms particularly, muscular tonicity and appetite. In two cases, administration had to be discontinued because of the increase in intestinal peristalsis, probably due to the splenic extract. No side actions or untoward effects were noted in any of the other cases. No constant effect upon the number of leucocytes was observed in any of the patients, nor was there any change in the coagulation time. All hemoglobin determinations were made by the Sahli method, and the usual counting chambers employed in the erythrocyte determinations. The specimens of blood were all taken from the lobe of the ear and approximately at the same time of day. Five different technicians were engaged in this work thereby serving as a check upon one another.

The following cases are selected from our series because they are typical and show the wide range of conditions responding favorably to this method of treatment:

CASE I—

This individual was suffering with a Mitral Stenosis accompanied by a secondary anemia. For four months before the use of spleenmarrow was begun, the Anemia had been treated with iron, arsenic, good food and forced fluids, but without apparent results. From the admission date until February 9, 1924, a period of four months, the hemoglobin had ranged from 60-70, and the R. B. C., from 3,100,000 to 3,790,000. At this time we secured a supply of Spleenmarrow, which was immediately administered with the following results:

MITRAL STENOSIS

	Hemoglobin	R. B. C.
Before Administration—		
February 9	70	3,790,000
After Administration—		
February 10	75	3,920,000
February 13	80	4,035,000
February 18	88	4,410,000

Thus in nine days the increase in the hemoglobin was 200% greater than could be obtained by the usual measures over a far greater period of time, and a corresponding increase in the number of the R. B. C. was secured.

CASE II—

For two weeks following a herniotomy, this patient's wound kept suppurating, being an extension of a stitch abscess and a secondary anemia developed in spite of suppurative treatment. The hemoglobin dropped from 85 to 60 during this time and the R. B. C. from 4,600,000 to 3,170,000. He was then put on spleenmarrow and in spite of the continued suppuration, the following results were obtained:

CHRONIC INFECTION

	Hemoglobin	R. B. C.
Before Administration—		
February 9	60	3,170,000
After Administration—		
February 10	70	3,750,000
February 11	78	4,360,000
February 13	82	4,235,000

CASE III—

Due to a profusely suppurative inguinal adenitis, secondary to a soft chancre, the hemoglobin in this case dropped to 50 over a period of three weeks, with a corresponding decrease in the R. B. C., in spite of the usual measures to increase the quality of the blood constituents. Spleenmarrow was started, and even though the drainage continued, the following immediate results were obtained:

POST-OPERATIVE INFECTION

	Hemoglobin	R. B. C.
Before Administration—		
February 9	50	2,720,000
After Administration—		
February 10	58	3,300,000
February 13	63	3,290,000
February 19	70	3,570,000
February 25	75	3,820,000

CASE IV—

For four weeks this case had been in the wards with a chronic pleurisy with effusion. The secondary anemia gradually increased in severity notwithstanding our efforts to check it with iron, arsenic, etc., and on Feb. 9 when spleenmarrow was started, the Hemoglobin had fallen to 50 and the R. B. C. to 2,880,000. The results following spleenmarrow medication were rapid and astonishing.

CHRONIC PLEURISY WITH EFFUSION

	Hemoglobin	R. B. C.
Before Administration—		
February 9	50	2,880,000
After Administration—		
February 10	55	3,220,000
February 11	60	3,220,000
February 13	72	3,710,000
February 25	88	4,810,000

CASE V—

This was a case of Lung Abscess, having been in the ward six months, constantly draining, with two operations in the interim and we could never get a better blood picture than 65% Hemoglobin and 3,232,000. In less than thirty days, a normal blood picture was obtained. This case complained of abdominal cramps and on several occasions had a diarrhoea, due, as we believe, to excessive peristalsis as a result of the spleen extract.

LUNG ABSCESS

	Hemoglobin	R. B. C.
Before Administration—		
February 18	65	3,232,000
After Administration—		
February 20	70	4,080,000
February 22	70	4,101,000
March 21	84	5,320,000

CASE VI—

This was a case of fat necrosis of the lower abdomen following a suppurative wound in the left inguinal region. The Hemoglobin had fallen in twelve days from 80 to 60 and the R. B. C. from 4,100,000 to 3,070,000, even though the usually accepted medication for anemia had been followed. Spleenmarrow gave the following results:

CHRONIC INFECTION

	Hemoglobin	R. B. C.
Before Administration—		
February 14	60	3,070,000
After Administration—		
February 15	64	3,310,000
February 18	84	4,210,000

The remainder of the series is briefly reported, first mentioning the length of time the case was under observation before spleenmarrow was started. It should be remembered that in all cases during this period of time an urgent attempt

was made to combat the secondary anemia by the administration of iron in the form of the tincture of FeCl₃, arsenic in the form of Fowler's solution, the appropriate diet, and forced fluids. The last hemoglobin and R. B. C. in practically all of the cases represents the best that could be obtained before the introduction of the Spleenmarrow, and the rapid remarkable increase in the hemoglobin content and red blood cell count following Spleenmarrow is clearly shown, and to me it removes any doubt in my mind as to the cause of this remarkable increase in red cell count and hemoglobin. Spleenmarrow in the great majority of cases accomplished in four days what supportive treatment failed to do in weeks.

CASE VII—ANEMIA DUE TO RHEUMATIC FEVER.

Under observation 6 months.

	Hemoglobin	R. B. C.
Before Administration—		
February 15	70	3,550,000
After Administration—		
February 18	86	4,410,000

CASE VIII—ACUTE RHEUMATIC FEVER

Under observation 3 weeks

	Hemoglobin	R. B. C.
Before Administration—		
February 20	70	3,530,000
After Administration—		
February 25	74	4,100,000
February 27	80	4,100,000
March 3	86	4,390,000

CASE IX—CHRONIC HEMORRHAGIC ANEMIA

Under observation 2 days

	Hemoglobin	R. B. C.
Before Administration—		
February 27	65	3,440,000
Administration begun—		
February 27		
After Administration—		
March 8	82	4,780,000
March 20	95	5,000,000

CASE X—ACUTE HEMORRHAGE-EPISTAXIS

Under observation 1 day

	Hemoglobin	R. B. C.
Before Administration—		
March 1	68	3,500,000

After Administration—
 March 10 100 4,720,000

CASE XI—ABDOMINAL TUMOR

Under observation 5 weeks

	Hemoglobin	R. B. C.
Before Administration—		
March 12	64	3,560,000
After Administration—		
March 15	80	4,590,000

CASE XII—ACUTE RECTAL HEMORRHAGE FOLLOWING PROLAPSE OPERATION

Under observation 1 day

	Hemoglobin	R. B. C.
Before Administration—		
March 20	45	2,340,000
After Administration—		
March 23	60	3,010,000
April 2	82	4,200,000

CASE XIII—CHRONIC ARTHRITIS

Under observation for 7 weeks

	Hemoglobin	R. B. C.
Before Administration—		
March 3	62	3,200,000
After Administration—		
March 18	100	4,500,000

CASE XIV—LUNG ABSCESS

Under observation for 2 months

	Hemoglobin	R. B. C.
Before Administration—		
March 21	80	4,360,000
After Administration—		
March 23	88	4,740,000

CASE XV—CHRONIC OSTEOMYELITIS

Under observation for 3 months

	Hemoglobin	R. B. C.
Before Administration—		
April 7	75	3,990,000
After Administration—		
April 9	80	4,180,000
April 11	85	4,800,000

Leake and Evans rendered the opinion that the efficacy of Spleen marrow in primary anemias is very doubtful, and in fact rather than improve the blood picture, seems to cause a marked fall in the

red cell count and hemoglobin content. In three of our cases, the clinical and blood pictures were so confusing that a positive diagnosis as to primary or secondary anemia could not be made with a fair degree of certainty. All were given spleenmarrow, and as a result of its action, these cases were classed as primary anemias. All showed a marked rapid fall in the red cell count and hemoglobin content, and the administrative was immediately discontinued. The results were as follows:

CASE I—

	Hemoglobin	R. B. C.
Before Transfusion—		
January 21	40	1,250,000
After Transfusion of 750 c.c.—		
January 22	62	2,500,000
Spleen marrow given from Jan. 22 to—		
January 24	45	1,250,000

CASE II—

	Hemoglobin	R. B. C.
Before Administration—		
February 15	65	2,202,000
After Administration—		
February 17	58	1,300,000
February 19	43	1,200,000

CASE III—

	Hemoglobin	R. B. C.
Before Administration—		
April 11	30	1,300,000
After Administration—		
April 14	20	980,000

Hence, in primary anemias, the use of spleenmarrow is attendant with marked dangers. The physiology of this is at present unknown; however, it would seem that to attempt to stimulate an already over-stimulated organ results in depression. It is believed that in primary anemias the bone marrow gives rise to an increased number of phagocytes which in turn devour the newly formed cells. This theory would seem to fit very well with the action of Spleenmarrow in primary anemias.

Having secured such excellent results in general medical and surgical conditions, it was decided to try this therapy in active pulmonary and bone tuberculosis. We were enabled to do this through the kind cooperation of Maj. Hedding and Dr. Edwin Kehoe of the tuberculosis section of our

hospital to whom we are very grateful. Some of the cases selected had fairly good blood counts to begin with, but no trouble was experienced in improving an already good count and hemoglobin content, and in all but three of the cases, the results obtained were highly gratifying. The subjective improvement in tuberculosis seems to be far greater than in general cases. How much of this is due to the mentality of the patients, it is hard to say, for it is well known how easy it is to obtain a psychological improvement in a chronic disease when any new medication be attempted, but in our series we tried to overcome this handicap by withholding from the patients the cause of the administration of the spleenmarrow, and all took it simply because the doctor ordered it. Cases were selected on various wards so that the patients could not compare notes, nor conjecture as to the reason for that particular medication. Our results in tuberculosis have already been confirmed by Dr. Dunham of the Oak Forest Sanitarium, at Oak Forest, Ill.*

CASE I—SUPPURATIVE TBC. BOTH HIPPS

Under observation 9 months

	Hemoglobin	R. B. C.
Before Administration—		
February 25	37	2,470,000
After Administration—		
February 29	50	3,270,000
Patient refused further capsules.		

CASE II—ACTIVE PUL. TBC. FAR ADV.

Under observation 6 weeks

	Hemoglobin	R. B. C.
Before Administration—		
March 3	90	4,190,000
After Administration—		
March 18	95	5,160,000

CASE III—ACTIVE PUL. TBC. FAR ADV.

Observed 8 weeks

	Hemoglobin	R. B. C.
Before Administration—		
February 23	85	4,496,000
After Administration—		
February 27	91	4,928,000

CASE IV—ACTIVE PUL. TBC. FAR ADV.

Observed 7 weeks

	Hemoglobin	R. B. C.
Before Administration—		
March 12	78	4,290,000
After Administration—		
March 21	89	4,850,000

CASE V—ACTIVE PUL. TBC. FAR ADV.

Observed 3 weeks

	Hemoglobin	R. B. C.
Before Administration—		
March 18	67	3,880,000
After Administration—		
March 21	76	4,330,000

CASE VI—ACTIVE PUL. TBC. FAR ADV.

Observed 7 weeks

	Hemoglobin	R. B. C.
Before Administration—		
April 5	84	3,980,000
After Administration—		
April 8	91	4,480,000
April 22	97	4,946,000

CASE VII—ACTIVE PUL. TBC. FAR ADV.

Observed 9 weeks

	Hemoglobin	R. B. C.
Before Administration—		
April 5	80	4,260,000
After Administration—		
April 14	92	4,880,000

CASE VIII—ACTIVE PUL. TBC. FAR ADV.

Observed 5 weeks

	Hemoglobin	R. B. C.
Before Administration—		
April 5	55	2,910,000
After Administration—		
April 14	68	3,570,000
Refused further capsules		

CASE IX—ACTIVE PUL. TBC. FAR ADV.

Observed 2 weeks

	Hemoglobin	R. B. C.
Before Administration—		
April 5	90	4,560,000
After Administration—		
April 8	95	4,780,000

*Personal Communication to the Authors.

CASE X—TBC. CERVICAL ADENITIS

Observed 7 weeks

	Hemoglobin	R. B. C.
Before Administration—		
April 7	65	3,770,000
After Administration—		
April 11	90	5,170,000

In three additional cases no other results than those within the normal range of error were obtained.

COMMENT

While it has been rather evident clinically that iron and arsenic are by no means satisfactory, specific facts have been lacking until very recently when Whipple, Hooper and Robscheit⁵ and Whipple and Robscheit⁶ showed that neither iron nor arsenic exerts any noticeable effect on the cure of hemoglobin regeneration following simple anemia due to the blood loss, and Musser⁷ found that iron was practically useless in stimulating blood production. The marked hematopoietic properties of a combination of Spleen and red bone marrow cannot, therefore, be attributed to the amount of iron, which was reported by Leake⁸ to be between 2.5 and 3 milligrams per gram of combined material. Since the normal daily iron intake is between 15 and 20 milligrams, the iron in the normal dosage of Spleen and red bone marrow would not be more than one-fifth of the daily quantity ingested. Inasmuch as many times this quantity of iron may be administered without obtaining the clinical results following administration of Spleen and red bone marrow it does not seem logical to attribute the improved blood picture to the iron in Spleenmarrow.

It is not our purpose to discuss the physiological reactions of Spleen and red bone marrow. But we call attention to the gratifying clinical results that followed administration of Spleenmarrow, results which we were unable to achieve through the use of the usual iron, arsenic preparations.

⁵Whipple, Hopper and Robscheit: *Amer. Jour. Physiology*, 1920, LIII, 263.

⁶Whipple and Robscheit: *Archives Internal Med.*, 1921, XXVII, 591.

⁷Musser: *Archives Int. Med.*, 1922, XXVIII, 638.

⁸Leake, C. D., and Evans, J. S.: "A preliminary note on the use of Red Bone Marrow and Spleen in the treatment of Anemia," *Wisc. Med. Jour.*, Vol. XXII, No. 7, Dec., 1923.

Our results in the cases of tuberculosis are encouraging and suggestive. They warrant further clinical trials in other sanatoria. The improved blood picture together with the other favorable objective indications, closely following the administration of Spleenmarrow, are significant, and leave no doubt as to the part played by the Spleenmarrow in the patients' improved condition.

The convenient form in which Spleenmarrow can be administered is of some importance. Practically all of the patients took the capsules without objecting, and no untoward side reactions were noted (except for the two cases of increased peristalsis). The powder is apparently stable since no difference was observed in the action of the first and last capsules of a large lot.

SUMMARY

1. Spleen and Powdered Red Bone Marrow Substance orally administered in capsule form caused a marked rise in the number of erythrocytes and the hemoglobin content in 15 general medical and surgical cases complicated by secondary anemias of varying degrees.

2. Ten cases of pulmonary and bone tuberculosis showed like improvements. Three cases were unimproved.

3. Spleen extract and Powdered Red Bone Substance caused a marked decrease in the number of erythrocytes and the hemoglobin content in three cases of primary anemia, and its use is definitely contra-indicated in this condition.

4. The iron content alone of this substance cannot account for the striking effects observed.

We wish to express our thanks to Dr. Maxwell Lando and to Dr. Benj. Schlomovitz of our hospital, for their excellent cooperation, without which these studies could not be made, and to Col. B. F. Hayden for permission to publish these reports.

EPIDEMICS ABROAD

A severe outbreak of epidemic meningitis is sweeping Japan. Reported deaths have reached a total of 1,776. At last reports the epidemic continued unabated. The epidemic of encephalitis prevailing in England and Wales continues. From February 2nd to August 9th the number of cases was 4,024. The fatality rate has been 12 to 21 per cent as compared with forty per cent in previous epidemics.

SPLEEN EXTRACT AND BONE MARROW IN THE TREATMENT OF TUBERCULOSIS

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Leake and Evans¹ recently published a manuscript, describing results obtained by them in the treatment of secondary anemias by the oral administration of spleen extract and bone marrow in capsule form, principally in general medical and surgical cases.

The theory underlying this method of treatment, in short, was that there must be some reserve in the body for the blood constituent; and Leake and Evans² felt that stimulation of the bone marrow would cause rapid formation of red blood corpuscles and an increase in the hemoglobin content, the bone marrow being the reservoir of the cellular elements of the blood. They further request that independent clinical investigation be made, in order to place this method of treatment upon a firm clinical basis. With this in view, it was decided to try spleenmarrow* in cases of active Pulmonary Tuberculosis, for it was felt that the rationale was similar to general medical and surgical cases; and if the theory for its use was correct, the same stimulation should take place, irrespective of the underlying pathology.

The results obtained fully confirm those of Leake,³ Leake and Leake,⁴ Leake and Evans,⁵ and Fisher.⁶

¹Leake, C. D., and Evans, J. S.: "A preliminary note on the use of red bone marrow and spleen in the treatment of Anemia," Wisconsin Medical Journal, Volume XXII, No. VII, December, 1923, pages 1 to 6.

²Ibid.

*The spleenmarrow used in this investigation was prepared by the Wilson Laboratories, Chicago.

³Leake, C. D.: "Hematopoietic effects of desiccated red bone marrow and spleen in normal humans," Journal of Pharmacology and Experimental Therapeutics, Volume XX, December, 1923.

⁴Leake, C. D., and Leake, Elizabeth W.: "Erythropoietic action of red bone marrow and spleen extracts," Journal of Pharmacology and Experimental Therapeutics, Volume XX, No. II, September, 1922.

⁵Same as No. 1.

⁶Fisher has treated 50 cases successfully at the National Military Hospital, Milwaukee, Wis. (Personal communication.)

Spleenmarrow* administered in capsule form three times daily, a half hour before each meal, caused a rapid rise in the number of red blood corpuscles, with a more gradual rise in the hemoglobin content. No constant variation in the number of white blood corpuscles was noted.

The following 23 cases are reported, all Active Pulmonary Tuberculosis, to whom spleenmarrow was administered after a known period of observation, during which time no improvement in the blood picture could be obtained by the use of the ordinary measures for combatting anemias, such as iron, arsenic, fluids, good food, rest, etc. Twenty-one cases show distinct and consistent improvement; two cases were unimproved, the results practically confirming those of Fisher on Tuberculosis, who reports 92% improved.

All hemoglobin determinations were made with a Bausch & Lomb colorimeter and the usual counting chambers were used in counting the cells. One technician was engaged in the work, making the percentage of error constant.

The patients were not told of any new form of treatment, thus tending to obviate any psychological improvement. All subjects were selected from the blood pictures and not from clinical manifestations.

Subject No. 1: A far advanced, active case of Pulmonary Tuberculosis; admitted April 4, 1924. This case was under observation until May 25th before spleenmarrow was administered, and up to this time no change was noted in the blood picture. The prognosis in this case was questionable at the start; but at present it is considered as favorable. This patient shows marked improvement of general condition.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
5/14	5,270,000	90%
After administration of Spleenmarrow—		
8/20	5,630,000	95%
8/26	5,640,000	95%

Subject No. 2: The first blood count was taken on this patient May 12, 1924. The patient had been in the institution since April 9th and no improvement in the blood picture had been noted up to this time. Following the administration of

*From the laboratory of the Oak Forest Tuberculosis Sanitarium, Oak Forest, Illinois.

spleenmarrow, improvement in both blood cell count and hemoglobin percentage was noted. This is a far advanced case of Pulmonary Tuberculosis, with an unfavorable prognosis. There has been a marked noticeable improvement in this patient since the administration of spleenmarrow.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
5/12	3,310,000	60%
After administration of Spleenmarrow—		
6/6	4,210,000	65%
6/19	4,310,000	85%
6/25	4,910,000	85%
7/2	4,910,000	88%
7/8	5,010,000	90%
7/15	5,180,000	90%
7/22	5,240,000	90%
7/30	5,250,000	90%
8/6	5,320,000	90%
8/10	5,370,000	90%
8/26	5,380,000	90%

Subject No. 3: This patient was admitted to the institution April 21, 1924. The first blood count was made May 12th and no improvement was noted, either in hemoglobin percentage or red blood cell count, until after the administration of spleenmarrow. This patient has not run a temperature since admission to the hospital; but has had all other signs and symptoms of toxemia, which indicated active Pulmonary Tuberculosis; diagnosis was confirmed by positive sputum.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
5/12	4,840,000	86%
After administration of Spleenmarrow—		
6/6	5,140,000	90%
6/18	5,140,000	90%
6/24	5,523,000	95%
6/30	5,700,000	95%
7/8	5,760,000	97%
7/15	5,780,000	95%
7/22	5,740,000	95%
8/27	5,840,000	100%

Subject No. 4: This patient was admitted to the hospital April 11, 1924, and a diagnosis of Far Advanced, Active Pulmonary Tuberculosis was made. This case was suffering from very marked toxemia at this time and practically no change in the blood picture was noted until June 2nd, when spleenmarrow was administered. This patient

also shows very satisfactory improvement in general condition. No other treatment was administered except the usual rest and dietary measures.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
5/14	4,220,000	65%
After administration of Spleenmarrow—		
6/2	4,360,000	75%
6/13	4,940,000	84%
6/19	4,720,000	79%
6/28	4,730,000	80%
7/2	4,960,000	84%
7/8	4,910,000	84%
7/15	4,990,000	85%
7/22	4,950,000	85%
8/7	5,100,000	85%
8/15	5,120,000	85%
8/27	5,170,000	85%

Subject No. 5: This case was that of a boy, aged 13, who was admitted to the institution June 16, 1924, and was under observation until July 17, 1924, before spleenmarrow was administered. A diagnosis of Glandular Tuberculosis was made, involving mainly the cervical glands.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
6/18	4,400,000	70%
After administration of Spleenmarrow—		
7/17	4,480,000	80%
8/18	4,890,000	85%
8/28	5,290,000	95%

Subject No. 6: A far advanced case of Active Pulmonary Tuberculosis, showing an extensive involvement of both lungs. Complications, cold abscesses located on anterior portion of chest. This patient was admitted January 9, 1924, and did not show any improvement in blood picture until June 18th. At this time spleenmarrow had been given about two weeks; and even though the hemoglobin percentage was low—as was also the red cell count—the readings below will show the gradual increase in both hemoglobin percentage and number of red blood cells. This patient showed practically no improvement until after the administration of spleenmarrow.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
5/25	4,560,000	70%
After administration of Spleenmarrow—		
6/18	5,210,000	80%

6/24	5,700,000	86%
6/30	5,740,000	88%
7/8	5,758,000	90%
7/15	5,600,000	95%
7/22	5,530,000	93%
8/26	5,530,000	93%

Subject No. 7: Admitted to the institution May 1, 1924, and was under observation until May 25th, with no improvement in the blood picture. His condition was complicated by chronic mitral endocarditis and nephritis. On admission the urine showed 8% albumen and the feet and ankles were badly swollen. A loud systolic blow was heard over the apex of the heart. A diagnosis was made of Far Advanced Active Pulmonary Tuberculosis, chronic mitral endocarditis and chronic nephritis.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
5/19	4,410,000	72%
After administration of Spleenmarrow—		
6/2	4,790,000	76%
6/13	4,290,000	72%
6/19	4,600,000	80%
6/26	4,730,000	82%
7/9	4,840,000	82%
7/16	5,080,000	90%
7/28	5,180,000	90%
8/12	5,580,000	95%

Subject No. 8: A case of old, chronic fibroid Tuberculosis of long standing, with an unfavorable prognosis. This patient was under observation from March 20, 1924, and no improvement was noted in the blood picture until after the administration of spleenmarrow. The tabulations below will show the marked, rapid changes in the blood picture in this case. Prognosis at this time is considered as favorable.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
3/20	4,370,000	80%
After administration of Spleenmarrow—		
6/18	5,100,000	87%
6/24	5,260,000	92%
6/30	5,420,000	92%
7/8	5,570,000	95%
7/22	5,470,000	97%
8/26	5,480,000	97%

Subject No. 9: This patient was under observation for several months before the administra-

tion of spleenmarrow and no improvement in the blood picture was noted. The diagnosis is far advanced, active Pulmonary Tuberculosis.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
2/7	3,640,000	60%
After administration of Spleenmarrow—		
6/18	4,710,000	74%
6/24	4,770,000	78%
6/30	4,850,000	78%
7/8	4,300,000	80%
7/15	4,310,000	80%
7/23	4,850,000	80%
8/6	4,370,000	84%
8/12	4,650,000	84%
8/27	4,790,000	85%

Subject No. 10: A long standing case of chronic fibroid Tuberculosis, showing no tendency to improve. Patient was under observation for several months without any change in the blood picture. Spleenmarrow was given May 26th, 1924, and in this case no material improvement in the blood picture has been noted.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
5/26	4,840,000	82%
After administration of Spleenmarrow—		
6/5	4,510,000	82%
6/19	4,560,000	83%
6/27	4,810,000	83%
7/4	4,880,000	80%
7/10	4,490,000	80%
7/16	4,760,000	85%
8/8	4,760,000	90%
8/13	4,760,000	90%
8/26	4,750,000	90%

Subject No. 11: Under observation six weeks, with no change in the blood picture. Prognosis on admission was considered as unfavorable and the present prognosis is also considered unfavorable. This is a far advanced, active case of Pulmonary Tuberculosis, showing in the beginning extreme toxemia, with marked emaciation. The condition is complicated by large abscesses in the lumbar region and a draining abscess on left side. At this time the patient has a partial paraplegia. His case was hopeless at the start and no improvement in the blood picture was obtained from the administration of spleenmarrow.

Date	R. B. C.	Hemoglobin
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Before administration of Spleenmarrow—		
5/20	4,370,000	73%
After administration of Spleenmarrow—		
7/17	4,440,000	80%
8/7	4,770,000	85%
8/13	4,470,000	82%
8/20	4,700,000	82%

Subject No. 12: This patient was under observation since March 19, 1924, and no improvement in the blood picture was noted until after June 25th, which was about two or three weeks following the administration of spleenmarrow. Diagnosis in this case is far advanced, active Pulmonary Tuberculosis showing quite extensive involvement in both lungs. Prognosis in this case was considered as questionable on admission; but at the present time is considered as favorable.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
3/21	4,950,000	85%
6/18	4,950,000	85%
After administration of Spleenmarrow—		
6/25	4,965,000	85%
7/2	5,250,000	90%
7/9	5,300,000	90%
7/16	5,520,000	95%
7/23	5,680,000	95%
8/29	5,650,000	100%

Subject No. 13: This patient was under observation for several months and no improvement in the blood picture was noted, until after July 17th, which was about six weeks following the administration of spleenmarrow. It will be noted that the first blood count in this case was made May 27th, 1924, which was shortly after spleenmarrow had been administered. The gradual improvement in both red blood cell count and hemoglobin percentage is shown in the tabulations below.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
3/22	4,330,000	72%
After administration of Spleenmarrow—		
5/27	4,850,000	80%
7/17	4,730,000	85%
8/19	5,220,000	90%
8/26	5,240,000	93%

Subject No. 14: A far advanced case of active Pulmonary Tuberculosis with a questionable prognosis. This case was under observation from

April 24, 1924, with no improvement in the blood picture, until August 15th, which was shortly after spleenmarrow had been administered. Although there has been no marked change in the blood picture in this case, it will be noted that there is a gradual improvement without any fall in the cell count and hemoglobin percentage.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
7/21	4,630,000	84%
After administration of Spleenmarrow—		
8/15	4,740,000	85%
8/19	5,000,000	88%
8/27	5,000,000	92%

Subject No. 15: This patient was under observation since June 5th, without any improvement until July 31st. This is a far advanced case of active Pulmonary Tuberculosis with an extensive involvement of both lungs. The prognosis in this case is considered as quite favorable.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
7/21	4,840,000	75%
After administration of Spleenmarrow—		
7/31	5,130,000	80%
8/6	5,180,000	80%
8/10	5,220,000	80%
8/19	5,240,000	90%
8/27	5,240,000	90%

Subject No. 16: Under observation since May 29, 1924. No improvement in the blood picture until after July 21st. Diagnosis, far advanced, active Pulmonary Tuberculosis. The prognosis upon admission was considered as unfavorable; present prognosis has been changed to favorable.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
7/21	4,200,000	75%
After administration of Spleenmarrow—		
7/31	4,400,000	83%
8/7	4,660,000	83%
8/12	4,680,000	83%
8/19	5,000,000	90%
8/27	5,000,000	90%

Subject No. 17: Admitted July 10th, 1924. Spleenmarrow was administered shortly after patient was admitted, and the gradual improvement in both the red blood cell count and the hemoglobin percentage will be noted below. Diag-

nosis, far advanced active Pulmonary Tuberculosis, with a questionable prognosis.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
7/31	3,920,000	75%
After administration of Spleenmarrow—		
8/12	4,190,000	80%
8/19	4,740,000	90%
8/28	4,930,000	90%

Subject No. 18: This patient was under observation since May 24, 1924, and no change in the blood picture was noted until about August 19th, which was a few weeks following the administration of spleenmarrow. Diagnosis, far advanced Active Pulmonary Tuberculosis. Prognosis at time of admission was considered as unfavorable; but at the present time, due to improvement in the case, it has been changed to questionable.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
7/28	4,070,000	75%
After administration of Spleenmarrow—		
8/5	4,210,000	75%
8/19	4,960,000	80%
8/21	5,000,000	90%

Subject No. 19: This patient was admitted to the institution June 23, 1924, and no change was noted in the blood picture until July 15th. Shortly after admission the patient had a severe hemorrhage, and within a few days following the hemorrhage the first blood count was made, showing a very low red cell count and hemoglobin percentage. Following the administration of spleenmarrow there was a rapid, gradual rise of the red blood cell count and hemoglobin percentage, as is shown in tabulation below. The patient was given artificial pneumothorax to control the hemorrhage, and the lung is at present collapsed.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
7/9	3,370,000	65%
After administration of Spleenmarrow—		
7/15	4,050,000	68%
7/22	4,600,000	78%
8/5	4,600,000	80%
8/15	5,320,000	87%
8/28	5,500,000	100%

Subject No. 20: This patient also had a very severe hemorrhage July 2nd and at this time the blood count was taken, which shows an extremely

low red blood cell count and hemoglobin percentage. Administration of spleenmarrow was begun on this patient as early as possible and the tabulations below will show the marked improvement in both the red cell count and hemoglobin percentage.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
7/2	2,994,000	55%
After administration of Spleenmarrow—		
7/7	3,490,000	60%
7/15	3,050,000	65%
7/22	4,810,000	80%
7/30	5,000,000	87%
8/5	5,120,000	90%
8/15	5,020,000	90%
8/26	5,350,000	95%

Subject No. 21: This patient was under observation from May 15, 1924, and did not show any improvement in the blood picture until June 13th. Diagnosis, far advanced active Pulmonary Tuberculosis, with an unfavorable prognosis.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
5/20	4,860,000	72%
After administration of Spleenmarrow—		
6/13	4,990,000	80%
6/20	4,980,000	90%
6/26	4,990,000	90%
7/2	5,010,000	95%
7/9	5,100,000	95%

Subject No. 22: This patient was under observation from May 23, 1924, and no change in the blood picture was noted. Diagnosis, far advanced active Pulmonary Tuberculosis, with an unfavorable prognosis.

Date	R. B. C.	Hemoglobin
Before administration of Spleenmarrow—		
8/4	4,090,000	75%
After administration of Spleenmarrow—		
8/15	4,770,000	85%
8/23	5,000,000	90%

Subject No. 23: This patient was admitted to the institution May 19th, 1924, with a diagnosis of far advanced active Pulmonary Tuberculosis, with a complication of tuberculous Osteomyelitis involving the head of femur. Prognosis in this case was considered as questionable.

Date	R. B. C.	Hemoglobin
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Before administration of Spleenmarrow—		
5/19	5,065,000	85%
After administration of Spleenmarrow—		
6/19	5,320,000	90%
6/26	5,325,000	90%
7/2	5,330,000	90%
7/8	5,350,000	92%
7/15	5,420,000	95%
7/22	5,640,000	97%

In view of the above clinical and laboratory evidence, and in view of the work already reported by various observers, it seems reasonable to assume that the oral administration of spleen extract and bone marrow in active, far advanced, Pulmonary Tuberculosis should improve the hemoglobin content and the number of red blood cells with the consequent increase in the nutritive elements of the blood. In giving spleenmarrow to the types of cases here reported, this substance has had its severest test in Tuberculosis, and if the above improvements can be obtained in far advanced cases, how much dare we hope for in moderately advanced and incipient cases?

It will be very interesting to read reports of work done along these lines, and a subsequent report will soon be published, showing the excellent results obtained in more favorable cases.

It will be noted that a great majority of our subjects were far advanced cases of Pulmonary Tuberculosis, many of them having serious complications; and that in spite of this unfavorable condition the blood picture in nearly every instance was improved. Of the 23 cases reported, 21 show improvement in the blood picture, and in the majority of cases a corresponding improvement in the clinical condition of the patient.

In the treatment of Tuberculosis, it is our object to increase cell nutrition and raise the resistance of the individual against the toxins thrown off by the tubercle bacilli. Under our present methods of treatment, we attempt to improve cell nutrition through the use of such measures as rest, fresh air, good food, quartz light, sunlight, iron and arsenic preparations, etc. But observations of cases treated in this manner have failed to show any appreciable improvement, either in the hemoglobin percentage or the red cell count.

Knowing that the body cells receive their nutrition almost entirely through the blood, it seems quite apparent that if any of the nutrient-carrying elements of the blood are increased, a better me-

dium for cell nutrition should be established. Therefore, by increasing the number of red blood cells and hemoglobin percentage, it seems rational to believe that the amount of nutrition carried to the body cells will be increased.

It is a generally accepted theory that there is an increased acidosis in Tuberculosis, due partly to insufficient intake of oxygen. With this thought in mind, it seems plausible to believe that with an increase in the number of erythrocytes and a corresponding increase in the intake of oxygen, that this condition should be improved. Persons who have unsuccessfully administered oxygen directly in the treatment of Tuberculosis have failed to take into consideration that only a certain amount of oxygen can be absorbed and that administration of oxygen does not necessarily increase absorption, this absorption of oxygen being directly dependent upon red blood cell and hemoglobin content of the blood.

It has been a moot question in the past as to whether or not a secondary anemia exists in Tuberculosis; and if so, to what extent clinical improvement will take place when this anemia be improved.

Schlomovitz⁷ in a recent publication showed conclusively by a comparison of relative blood cell volume in Tuberculosis, that many a real anemia exists where apparently none was present. The relative blood cell volume method of calculation opens up a large new field in the investigation of blood diseases and its application to pernicious anemia has likewise been recently reported.⁸

It is clearly evident that with an increased number of red blood cells and an increased hemoglobin content, food absorption and oxygen absorption are proportionately increased, both of which manifestly tend to improve the general condition of the patient, be he tuberculous or not.

SUMMARY

1. Twenty-three cases of far advanced active Pulmonary Tuberculosis are reported, whose

⁷Schlomovitz, B. H.: "Relative blood cell volume in Pulmonary Tuberculosis," *The Journal of American Medical Association*, June 7th, 1924, volume 82, pages 1845 to 1847.

⁸Haden, Russell L.: "The value of volume index in the diagnosis of pernicious anemia," *Journal of The American Medical Association*, volume 83, page 671, August 30, 1924.

anemias were treated by the oral administration of spleen extract and bone marrow, 21 of whom show a marked improvement.

2. Clinical reports thus far appearing in literature, have demonstrated definitely that spleenmarrow increases the red blood corpuscles and hemoglobin percentage.

I wish to thank Mr. Anton J. Cermak, President of the Cook County Board of Commissioners, and Mr. Frank Venecek, General Superintendent of the Oak Forest Institutions, who have made it possible for me to carry on these investigations.

THE DIAGNOSIS OF VERY EARLY PERNICIOUS ANEMIA

BY T. L. SZLAPKA, M.D.

MILWAUKEE

The diagnosis of very early cases of primary pernicious anemia as a rule requires more exact and painstaking methods than are usually necessary in typical, well-developed cases. It is not the purpose of this paper to dwell on the latter, but to emphasize some time-honored and some more recent procedures useful in the recognition of early cases before the typical anemic blood-picture appears. These furnish material for interesting study. Pernicious anemia is a disease more hopeless at present than cancer. This and the unproductiveness, from a practical standpoint, of research already devoted to it, seems to have brought about an attitude of apathy on the part of the physician. May it not be that more attention to the details of the very early stage of the disease will lead eventually to a better understanding of its nature?

DIAGNOSIS

Intelligent diagnostic methods presuppose the conception that this is not merely a blood dyscrasia but a systemic affection of which the blood-findings are only a feature, usually a late one. The statement is sometimes made that the average course of a case of pernicious anemia is from one and one-half to two and one-half years. Such is the case reckoning from the onset of the typical anemia, but otherwise not. It is impossible to make an exact estimate when one appreciates the insidiousness and variety of the initial symptoms. The text-books are necessarily vague on the point and I do not recall ever having seen a definite

figure. Some of my patients have described prodromal symptoms as long as ten years before the onset of any anemia, the majority from two to five years.

HISTORY

These early symptoms can best be understood by remembering that the disease attacks primarily three systems of the body: 1. The gastro-intestinal system; 2, the blood and the mechanism concerned in its formation and destruction; and 3, the nervous system.

I am convinced that every case of pernicious anemia begins as a gastro-intestinal disturbance. These days careful history-taking and observant physical examination are being more and more neglected, and the tendency is steadily growing to place disproportionate emphasis on laboratory procedures. Too often are the results of a blood examination and of a variety of more technical laboratory methods allowed to weigh so heavily in the diagnosis that the history becomes an apparently unimportant element. And yet, a careful questioning of the patient with special reference to gastro-intestinal symptoms will always be of extreme value in the recognition of these very early pernicious cases. Indefinite weakness and slight loss of weight may be associated with peculiar changes in appetite with perhaps periods of severe anorexia. The patient may complain of an unpleasant, brassy taste or that foods do not taste as they should. Irregular, gassy, fermentative indigestion is the rule, which may be attributed to chronic gall-bladder or appendiceal disease, and the patient subjected to an operation, especially if there be present a certain amount of abdominal soreness. Irregular diarrhoea is a common and troublesome symptom, and may be associated with a sense of bloating, heaviness and unrest in the bowels. A characteristic glossitis is very likely to appear at intervals. The tongue becomes beefy red, especially at the tip and along its margins. With time its papillae atrophy and it becomes smooth and glossy. This, together with angry red patches on the buccal mucosa, may produce such extreme burning that perhaps the patient, apparently otherwise well, may be unable to eat. A presumptive diagnosis of pernicious anemia may be made on the mouth findings alone.

Symptoms attributable to nervous system in-

volvement appear later in the course of the disease. The common complaint is of numbness and tingling of the fingers and toes, which may gradually extend up the arms and legs. As a rule, these paresthesias begin after the onset of the anemic blood-picture, but occasionally may precede it. I have observed some twelve cases of the latter type during the past five years, most of whom I have followed to the eventual development of a typical anemia. In this connection my former colleague Woltmann,¹ of the Mayo Clinic, says: "As to the relationship between the time of onset of the disease, dating this from the first characteristic symptom, and the time of onset of the nervous symptoms, there is nothing constant whatsoever. Thus a patient may die of pernicious anemia without ever presenting any evidence of central nervous system involvement; on the other hand, the appearance of nervous symptoms may antedate the onset of the anemia, as pointed out by Nonne and Bastianelli. This was true in 1.4 per cent of our cases, the symptoms preceded being usually the paresthesias. In one case the patient had to resort to the use of crutches and catheterization before the anemia was apparent." Psychic phenomena are common though usually not obvious so early. There may be apathy, peculiar nervousness, irritability, change in character or low-grade mental disturbances. On one occasion I observed a marked psychosis, an acute hallucinatory confusion lasting several weeks, which subsided shortly before the onset of the anemia. Among others, Langdon (2) has referred to these psychic changes in an interesting paper as far back as 1905.

A family history of pernicious anemia is significant. There are no satisfactory statistics available to prove that heredity is of importance, but a history of the disease affecting several members of a family is obtained too often to be explained entirely as a coincidence.

PHYSICAL FINDINGS

General physical examination usually fails to discover anything characteristic, unless the glossitis, already referred to, be present. Very rarely is the spleen palpable at this time. Much is made of the facies associated with this or that disease and far be it from me to add to this rogues' gallery unnecessarily. There is, nevertheless, a certain facies of pernicious anemia which may be noticeable quite early—an expression of the face as of

illness, perhaps with a touch of the mask-like, dullness of the eyes, an unhealthy color with often a suggestion of icterus. Sometimes a pigmentation similar to that of Addison's disease develops quite early, with marked whitening of the hair, giving the striking appearance of a bronzed face with white hair and, as it so common, dirty carious teeth.

NEUROLOGIC EXAMINATION

Objective neurologic findings were present in 80.6% of the 150 unselected cases of pernicious anemia studied by Woltmann¹ and similar figures are quoted by numerous other authors. Of the 80.6%, 99.7% showed a subacute combined sclerosis type of lesion and at least 4.9% showed multiple peripheral neuritis in addition to the cord lesion. Obviously, a neurological examination is very helpful in the diagnosis of any case of pernicious anemia and I have found it especially so in the preanemic stage. Demonstration of this type of lesion forms an important link in the chain of evidence.

LABORATORY TESTS

From the laboratory standpoint, a number of tests are of positive practical value. A complete blood-count is of course the first requisite, but in the earliest stages of the disease it is not likely to show anything unusual. Occasionally slight anisocytosis and poikilocytosis and a decrease in platelets may be present, but my belief is that an anemic crisis is then imminent. A fractional gastric test-meal will show a persistent absence of free hydrochloric acid. In 1903 Capps³ pointed out the value of studying the volume-index of the erythrocytes. Estimation of this index, after the method later developed by Haden,⁴ is likely to show an increase in their size. This feature still requires study, and reports of observations so far have not been available definitely to establish the findings in very early cases. I believe, however, that the technique is the most useful recent laboratory advance in the recognition of early or disputed cases.

The demonstration of increased hemolytic activity is most valuable. Its importance becomes apparent when one remembers that, as long as blood production keeps pace with destruction, no anemia will appear. In pernicious anemia excessive blood destruction is present long before any anemia is evident and can be demonstrated early in

a practical manner by the method described by Schneider^{5, 6}, following the work of Eppinger⁷ and others. This work, and a series of clinical studies along similar lines by Giffin, Sanford and the author,⁸ showed that there is a definite increase in the elimination of urobilin and urobilinogen in the bile in hemolytic diseases. This increase is by far the most marked in the two hemolytic anemias—pernicious anemia and hemolytic jaundice—so marked that the inaccuracy of the method does not destroy its practical value. The simplest technique is that of Schneider, using the duodenal contents for examination. Incidentally, magnesium sulphate must not be used to obtain the bile in this technique, as it alters the results markedly, giving excessively high readings. In my preanemic patients increased biliary values were obtained quite regularly and, in those giving negative results by this test, I felt justified in questioning the nature of the sample of duodenal fluid submitted for examination.

SUMMARY

1. The fact is emphasized that pernicious anemia is not simply a blood dyscrasia, but a systemic disease.
2. Reference is made only to its preanemic stage.
3. Diagnostic methods are outlined, based on a careful history, physical examination, neurologic examination, and appropriate laboratory data.
4. The laboratory tests suggested as having positive practical value are (a) a complete routine blood-count; (b) the demonstration of gastric achylia; (c) the demonstration of increased hemolysis; (d) the estimation of the volume-index of the erythrocytes.

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DISCUSSION

PRESIDENT SLEYSER: Gentlemen, I should like to take this opportunity to welcome back home a former member of the State Medical Society of Wisconsin, a man whom we have all been very proud of, and ask him to open the discussion on this paper, Dr. Louis Warfield (Applause).

DR. WARFIELD: Mr. President and Members of the Society: I had no idea that I was going to be called upon to speak nor had I any idea of speaking, so that this rather, as it were, takes me off my feet.

I am interested tremendously in this question of pernicious anemia and I am sorry I did not hear the first of Dr. Szlapka's paper. However, I think I got the drift of what he was saying, with all of which I most heartily agree. It has been interesting to me as we have gone on in the last two years that we have come more and more to the conclusion that achylia is one of the most important of all the symptoms of pernicious anemia. I am sorry we call it pernicious anemia, I think pernicious anemia is a bad word. I would go right back to the Addison era and call it idiopathic anemia. Idiopathic anemia is this peculiar disease. At present we have not found the cause. According to Hurst and his associates who have been very much interested in the subject of achylia, they find about four per cent of all people have no hydrochloric acid in their stomach contents. Hurst goes so far as to say he thinks he has been able to predict idiopathic anemia twelve years before it developed. It seems to me that is going a little too far. But if all the statistics that we have at hand, including the latest statistics of Levine and Ladd, who studied some two hundred cases, are true, they are practically one hundred per cent cases of idiopathic anemia with achylia. So much for that point. I think it is a very important point.

I do not feel that the blood examination has the great value that we used to think it has, because we do see some cases at the present time which are more easily, and by better methods, diagnosed. We see cases that come so close to normal blood that it is almost impossible to tell that it isn't normal blood. So that the question of achylia and the question of the neurological manifestations that enter into the question help us tremendously in making the diagnosis.

There is just one other point I want to make, that is the point in regard to the hemolytic anemias in general. We had occasion within the last year or two over in Michigan to see three cases which looked for all the world like pernicious anemia, idiopathic anemia, which

had been diagnosed idiopathic anemia and which had gone along two or three years with this diagnosis. The only reason why it was thought these cases were not idiopathic anemia was because they did not have complete achylia. Further studies of these cases elicited the fact that there was a very probably chronic cholecystitis. I am not here to suggest that chronic cholecystitis is the cause of all ills more than chronic appendicitis or any other disease. There is some hemolytic substance affecting the bone marrow and making destruction more rapid than production, I think, unquestionably. The removal of the gall bladder in these cases cured the patients absolutely.

I recall in this connection a most remarkable case Dr. Herrick, of Chicago, told me about, a doctor that had appendicitis, at least that was the final diagnosis, but who was thought to have idiopathic anemia. When the question of an appendicitis operation and life or death with his grave anemia came up, he chose the appendicitis operation and was cured. I only bring that out to say this, that in any case of idiopathic anemia, I think we should be tremendously careful not to be satisfied after having examined the blood and gone over the neurological manifestations to say this is idiopathic anemia, a hopeless prognosis, as a rule. I think the more intensively we study the cases the more we will find there are certain of these cases which are to all intents and purposes idiopathic anemia and yet which are dependent upon some removable hemolytic cause (Applause).

PRESIDENT SLEYSER: The paper is now open for general discussion.

DR. JAMES EVANS (La Crosse, Wis.): Mr. Chairman, in the medical service of the Peter Bent Brigham Hospital in Boston, we used to place chief reliance in the diagnosis of early pernicious anemia on the fact that this disease occurred so often, almost entirely in blonds. Levine in his study of the two hundred cases that Dr. Warfield just mentioned, found that all the patients diagnosed as pernicious anemia at the Brigham Hospital since its foundation have all been blonds. The one exception to this occurred last year since his paper appeared in an Armenian who was naturally a brunet type, as all Armenians are, and who had a typical blood picture and neurological findings of pernicious anemia.

The other point that they always put stress on there is the achylia, as was mentioned, all cases being found to have achylia.

A new feature they have been using as an indicator of increased hemolysis and an easier method than that of determining the amount of urobilin and urobilinogen in the bile is the new method of determining the icterus index of the blood serum, and this is done by comparing the blood serum with a standard potassium bichromate solution. The usual icterus index in cases of pernicious anemia is around eleven, as I remember it. In the blood findings the large oval erythrocytes is another point of great importance (Applause)

DR. ARTHUR PATEK (Milwaukee): Just one point: I was very glad to hear Dr. Warfield mention the fact

that one cannot and should not make a diagnosis of pernicious anemia on the blood picture alone. We all know that in some stages of pernicious anemia the blood picture may be reasonably good, and even severe remissions may have strikingly meagre blood findings—to be followed eventually by a typical picture that will help to establish a diagnosis.

I have at the present time two patients in both of whom there is a definite achylia. Both have occasionally a blood picture which is only suggestive. There cannot be any question at all in their cases, because of other findings, that the diagnosis of pernicious anemia is justified, although at no time within a period of six or eight months have there been evidences in the blood that are at all characteristic.

DR. J. L. YATES (Milwaukee): Mr. Chairman, Ladies and Gentlemen: It seems a great shame to have a medical fest all by itself in such loving and peaceful agreement. There are other sides to the pernicious anemia story, idiopathic anemia, if you will. Certain individuals do have pernicious anemia and do not have achylia and nervous manifestations. For instance, there is an individual in Milwaukee at the present time in the third year of his disease who has no manifestations of central nervous system involvement, no achylia, and is surviving because of having received his seventieth transfusion.

Another point upon which there may not be quite such universal agreement is as to whether or not pernicious anemia is a hemolytic disease. Dr. Peabody of Boston who recently had a note in the Journal of the American Medical Association has observed that one of the main channels of the disappearance of red blood corpuscles from the circulation is phagocytosis of red blood corpuscles by endothelial cells in bone marrow. In certain patients there is little or no evidence of hemolysis, but after death patients that have and have not been transfused, show this very extensive phagocytosis of red blood corpuscles manifested by the endothelial cells in bone marrow. When one takes into consideration the tremendous expense of red bone marrow in pernicious anemia, and that most of the endothelial cells are actively engaged in phagocytosis, there is an adequate explanation for the disappearance of red blood cells from the circulation by other methods than hemolysis (Applause).

PRESIDENT SLEYSER: Any further discussion? Dr. Szlapka, will you close the discussion, please?

DR. SZLAPKA: First, regarding Dr. Warfield's remarks, I am very much interested in what he said about the disappearance of a very suggestive pernicious type of blood-picture in a case after cholecystectomy. This being presumably a hemolytic type of anemia, I am not entirely surprised that such a favorable result was obtained. We know that there are a variety of blood-pictures observed in cases of biliary infection. For instance, in biliary cirrhosis, in which there is usually splenomegaly, we may have anemia; sometimes this anemia suggests pernicious anemia and the various laboratory methods available will show there is

a definite increase in blood destruction. We know that in these cases favorable results are at times obtained by splenectomy. This could be explained in various ways, perhaps mechanically by cutting down the circulation back through the liver, or by reducing the quantity of toxic material or infection going back through it, or by simply eliminating a septic focus. In some such way, doing a cholecystectomy and eliminating an infectious focus in the portal system may conceivably have cured Dr. Warfield's patient of an anemia suggestive of pernicious anemia.

In connection with the discussion of achylia, I would like to report a very interesting case which I had the privilege of observing for some time. The patient was a man about forty-five years of age who had a total gastrectomy done. About one year after the gastrectomy this patient developed an anemia with a color index steadily over one. No evidence of increased hemolysis could be demonstrated and there were no neurological changes. This patient established for himself an anemic level of approximately one-third the normal without clear exacerbations or remissions. I am not acquainted with the final outcome. The case was reported in detail, I think, in the *Journal of the American Medical Association* by Hartman about three years ago and reference was made to another similar case in the literature.

I am interested in Dr. Evans' remarks about blonds. Pernicious anemia may be more common in blonds, but I am also certain I have seen a large number of pernicious anemias in brunette types.

Dr. Patek's remarks with reference to the general picture of pernicious anemia in the absence of a typical pernicious blood-count are interesting. I think that in such cases the estimation of the volume-index of the reds would be especially useful. We often see pernicious blood-pictures in which the color-index is one or just under one, and this fluctuation is just enough to make us somewhat doubtful of the diagnosis, although achylia and nerve changes may be present and be worth quite ninety-five per cent in the diagnosis. In such cases we will find the volume-index more constant and it will show the red cells are larger than normal.

As regards Dr. Yates' case in whom there is a typical picture of anemias of the pernicious or idiopathic type, in the absence of achylia and in the absence of nervous signs, and in whom many transfusions have been made, I would say such a case is rare. I have seen cases where I felt we were possibly dealing with pernicious anemia and in whom there was present free hydrochloric acid in the stomach, but in such cases I have usually been able to eventually satisfy myself that we were not dealing with a case of typical Addison's anemia. Other grounds were found on which one could explain the condition. In my experience, achylia is a necessary point in the diagnosis.

I am familiar with Dr. Peabody's article on phagocytosis in anemia. This was a short preliminary article and recorded a most interesting observation of phagocytosis in a case of supposed pernicious anemia. He reported only one case. Dr. Peabody suggested further

studies be made and I am anxiously waiting to see what the results will be.

Thank you very much (Applause).

INTRASPINAL TREATMENT OF NEUROSYPHILIS A PRELIMINARY REPORT*

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Mindful of the magnitude of the subject of neurosyphilis, the report here submitted covers so short a period of therapeutic endeavor in this institution that it can be scarcely considered more than a preliminary introduction to a paper I hope to submit to you in the future.

During the first week of my stay here I heard utterances at one of your society meetings to the effect that intraspinal therapy was rapidly going into discard; some went so far as to say that it was almost extinct. You have no doubt read since accounts to the contrary.¹ The subarachnoid space is quite liberally entered with the introduction of suitable remedies nearest to the locus of the pathological process. The cisterna magna² is, it would seem, the greater choice for such approach. Unfortunately, the last named region of entry is not yet for general use by the average physician, and in our endeavor to develop a least hazardous method, this obstacle was given considerable prominence.

A finding current among investigators in neurosyphilis is that successful therapy—of one form or another—is possible in the type spoken of as meningo-vascular lues. In the parenchymatous group, namely, general paresis, tabes, and anterior horn involvement, an entirely different situation is being confronted. A search for results in this variety is indeed distressing. Why the difference? And if such is found, can it aid us materially in establishing a nucleus for the solution of the yet difficult and almost unapproachable number of cases of this disease?

ANATOMO-PHYSIOLOGICAL CONSIDERATIONS

Beginning with the meninges, intimate as their contact with the axial nervous system may seem,

*Presented before the Milwaukee Neuro Psychiatric Society, at the Milwaukee County Hospital for Insane, February 28th, 1924. Based on a study of eighteen cases, picked at random for a period of eight months.

they are, nevertheless, outside of and separated from it by layers of neuroglial tissue. The pia or vascular membrane not only follows the contour of the brain very closely, but equipped with prolongations it dips down into the sulci, carrying blood vessels in its wake. These vessels become surrounded by a connective tissue sheath derived from the pia. Between this sheath and the walls of the vessels are the perivascular spaces. It is thus evident that the arteries and veins, too, are separated from nerve tissue.

There is ample laboratory and clinical evidence to show that the axial nervous system is in some manner separated from the others, especially from that of the circulatory system, at least in as far as the penetration of foreign elements is concerned; in other words, substances, medicinal or otherwise, exercising free access to the meninges may not reach the brain at all if the usual avenues of introduction were to remain in vogue.

Embryologically the meninges are derived from the mesoderm and histophysiologically differ in no wise from mesodermal tissue elsewhere in the body. Tissues of such fabric have, if invaded by microorganisms or their metabolic end-products or by any other foreign element capable of irritating these, a more or less well-defined response, clinically designated as a reaction to inflammation. Thus an influx of lymphocytes, a phagocytosis, seems to be the main factor in the resistance shown, and success or failure will depend naturally upon the potentiality of the rising tide in defense of the host invaded. Such a reaction is certainly a very important addition to the therapeutic achievements reported in the cases under consideration.

As for the brain substance proper, the difference is striking indeed; embryologically it is of ectodermal origin; histologically it presents a multitude of neurones held together by glial tissue. Pathogenic insult here results in a true degeneration of the neuronie elements with probably very little power of resistance. The only possible reaction to any process of degeneration of nerve elements (leaving the myelin out of consideration) is possessed by the glial tissue. The reaction of the glia to myelin degeneration is especially prominent by the formation of large or small ameboid forms.³ Unfortunately the power of the glial tissue is very limited and inadequate as a factor of defense, with the result that it itself undergoes

extensive proliferation. Thus the invader's aggressiveness unhindered goes on probably because of the absence of the type of reaction so inimical to systemic welfare.

From the foregoing, reasonable deductions which may well pave the way to newer procedures naturally suggest themselves.

First: That the central nervous system isolated as it may seem, still has imperfections; micro-organisms do gain entry, while at the same time the reaching of remedial measures may be blocked entirely. Accordingly, measures of therapy in the unyielding or "Wassermannfast" cases should be centered upon the introduction in that region where they will do most good. In the meningococcic infections, for instance, favorable results are had largely because the fluid is being administered at the seat of the process of invasion.

Solomon,¹ regarding sites of therapeutic injections, maintains that "theoretically and practically, it seems advisable to place the medicant as near to the pathologic change as possible, utilizing the lumbar subarachnoid space, the region of the cisterna magna, and the ventricles as conditions indicate." Fordyce⁴ asserts that intraspinal treatment cures certain types of neurosyphilis in which intravenous treatment alone or when combined with spinal drainage has failed.

And lastly, the histologic texture of the brain undoubtedly accountable for the peculiar pathological response to internal abuse, places the latter's integrity at a great disadvantage. This handicap, I feel, can be lessened greatly by artificially promoting a reaction similar to the one met with in active inflammations. In other words, to arouse the inert and grown weary inner protective forces in self defense to an extremely destructive situation.

Upon the above criterion the groundwork of our series of cases for treatment was then laid.

For the sake of keeping within the confines of a preliminary report, a skirmish through the literature on the subject will be limited.

IMMUNITY AND NON-SPECIFIC PROTEIN THERAPY

Work along the lines of inducing immunity has been attempted especially in Germany. Kling-Müller⁵ was one of the first to put efficient non-specific stimulation (*Leistungssteigerung*) into practice. He advised injections of turpentine (20% in olive oil) 1 c.c. of which was injected into the buttocks in the treatment of gonorrhoeal

complications, cases of sycosis, etc. Müller-Hamburg⁵ followed with a solution of germ-free and toxin-free milk albumin. He holds that the immunizing activity of the bone-marrow responding to the non-specific stimulation is strengthened. This is judged both by the development of fresh granulated neutrophil leucocytes and the increase of defensive reagins in the serum, which are led to the various foci of infection in the system and there become visible. To quote Trossarello:⁶ "The rapid febrile reaction is the healing factor, aside from the increase in the proteolytic ferments, etc., and the enhancing of the vitality of the protoplasm molecule." In this country, Swift and Ellis⁷ pioneer the introduction of serum with salvarsan intrathecally. Very favorable results are reported from this procedure. Mills and Voux⁸ are inclined to the conclusion that arsenic penetration of the central nervous system is much increased by inducing a sterile meningitis and may be the mechanism accounting for the benefits attributed to the Swift and Ellis treatment. While this may be true, from limited observations made by myself thus far, I am inclined to the conception that similar results may be had from the introduction of serum alone without the intravenous arsenical manipulation. Thomas⁹ says "the beneficial effect of the Swift and Ellis method of treatment may be due to the syphilitic immune body content of the serum rather than to arsenical effect. We have been unable to detect arsenic in the blood stream any time for half to an hour after intravenous injection of Salvarsan." The direct introduction of the arsenicals intrathecally was attempted first in aqueous solution by Wechselman,¹⁰ and later in unchanged form by Ravaut.¹¹ Their results with those of American investigators are doubtful and in some instances proved extremely discouraging. Sachs,¹² Kalinski and Strauss¹³ champion the opposition to intraspinal therapy.

Mercury has also been an adjuvant to sera administered intraspinally. A comparison of mercurialized and salvarsanized serum is made by Haller.¹⁴ In his work the serum was prepared according to the method suggested by Byrnes.¹⁵

In the series of cases presented here tonight, serum to which mercury was directly added has been used, but instead of obtaining the serum from the patient, horse serum was substituted. The reasons are manifold:

First: Secretions or sera generally, it has been shown, possess antibacterial qualities. The blood serum especially, from work done by Wright and Douglas,¹⁶ played an important part in the process of phagocytosis. They showed that leucocytes which were washed free of all traces of serum did not ingest bacteria. If, however, normal serum was added, phagocytosis became more marked and if serum from an animal highly immunized against bacteria in question was used, the leucocytes exhibited the most marked activity. (Detweiler.)¹⁷

Second: Horse serum, while possessing the anti-bacterial qualities of most sera, has an additional advantage over human serum, in that the horse has, like many other animals, the necessary element, which renders it immune against syphilis.

Third: Most cases admitted to this hospital have nearly all had treatments in the past. Gennerich's¹⁸ version is timely in this connection. He says, "the more generalized the infection with the organism, the greater the production of immune bodies and hence the greater the probability of resisting the infection. When most, but not all, organisms are killed by arsphenamin, and the natural immunity is thereby reduced, there is danger of greater growth of the organisms unhindered by specific antibodies." This in my opinion ought to explain the last objectionable feature to the use of the patient's serum in many cases.

Other advantages are: *First:* It does not entail frequent and preliminary manipulating of the patient in its preparation, conserving thereby our time element.

Second: It keeps well, and the age does not perceptibly add to its undesirable properties; prolonged exposure to unfavorable temperature will, however, render it unfit for use.

Third: A large supply is always available for use at any time at our convenience.

MERCURY

Now for the analysis of the part mercury plays in spinal therapy. In order to judge its place best, a brief review of the properties is timely for this occasion. Physically a small mass of mercury rounds up into a globule by virtue of the phenomena of cohesion. The effect of heat is to antagonize cohesion, giving a wider sweep to the motion of the molecules, thus causing expansion. As was stated elsewhere, our aim was to avail ourselves of

CHART I. SHOWING THE EFFECT OF Hg-SERUM ON THE SPINAL FLUID, BLOOD WASSERMAN, AND THE CLINICAL SYMPTOMS.

CASE OF	SEX	AGE	DATE	WGT.	ROUTE	DYNAMICS			FL. DRAW.	GLOB.	T.P.	WASSERMAN		COLLOIDAL GOLD TEST	CLINICAL SYMPTOMS	TREATMENT	REACTION
						PRESS.	OSCIL.	JUGUL.				ALC. PPT. %	MG. BLOOD FLUID				
G.F.	M	45	OCT. 23	152	LUMB	90	GOOD	P.R.	5 C.C.	22	XX	NEG.	XXXX	3311100000		15 CC.	Paranoid ideas. Ataxic gait Fair insight Stiffness in legs
			NOV. 12	"	"	"	"	"	"	"	XX				25 C.C.	Paranoid ideas Less Ataxia present Legs not so stiff	
			DEC. 10	142	C1ST.	"	"	"	20CC.						15 C.C.	No psychosis Good insight Walks easier	
			DEC. 17	147	"	80	"	"	30CC	13					30 C.C.	No psychosis Good insight Happy & helps in printing of the Chart Reports	
			FEB. 28	161	"	70	"	"	30CC	9	NEG.		NEG.	NEG.	25 C.C.	No vomiting or pain in legs	
M.H.	M	44	OCT. 10	168 1/2	LUMB	105	GOOD	P.R.	5 C.C.	85	X	XXXX	XXXX	5555552100		25 C.C.	Face and body flushed instantly. Temp. & slight headache. Sexual passion not strong
			OCT. 24	159	LUMB	82	"	"	"	"					30 CC	Face flushed. Temp. & slight headache. Grandiose ideas gone. Euphoria.	
			OCT. 29	166	LUMB	"	"	"	"	"					30 C.C.	Slight rise in temp. Speech somewhat slurring. Head O.K. Headache. Euphoria	
			NOV. 12	166 1/2	LUMB	"	"	"	"	"					30 C.C.	Slight rise in temp. Speech O.K. Headache. Euphoria	
			DEC. 19	171 1/2	LUMB	"	"	"	"	22		XX	XXXX	5555431000	30 C.C.	Slight rise in temp. Speech O.K. Headache. Euphoria Discharged	
W.S.	M	50	FEB. 4	173 1/2	LUMB	70	"	"	"	15	POS.	XX	XX	5554321000		15 CC.	Well composed Fair insight Returned for treatment No complaint. Slight fever
			SEPT. 10	149	LUMB	125	GOOD	P.R.	"	80	POS.	POS.	XXXX	55555443110	20 C.C.	In bed under restraint. Talks & becomes more complaisant. Temp. rise	
			SEPT. 24	143	"	"	"	"	"	"					25 C.C.	Rise in temp. Complains slight headache Quiet in bed sometimes mute 3 days in bed	
			OCT. 29	171	"	"	"	"	"	"					30 C.C.	Temp rise Slight headache 2 days in bed.	
			NOV. 12	172	"	"	"	"	"	"					30 C.C.	Temp rise Slight headache 2 days in bed.	
		DEC 10	182	"	110	"	"	"	17					18 C.C.	Temp rise Slight headache 2 days in bed		
		DEC. 17	182	"	"	"	"	"	"					30 C.C.	Temp. rise Slight headache 2 days in bed		
		JAN 11										1CCTR				Went home after 12 hours	

the lumbar subarachnoid region entirely, if possible. Solomon's¹⁹ experiments clearly show that substances introduced into this region seldom reach up to the brain. The question then arises, can a mercuric ion by virtue of its expansion in a most suitable medium of a warmed fluid make its way to the higher cerebral territory? Further investigations are necessary to answer this question. Theoretically, it would seem possible, and if this can be proven true, mercury is an invaluable agent in spinal therapy. While this is yet uncertain, I prefer to introduce mercury serum under pressure to insure the desired destination with at least a part of the chemical.

Pharmacologically mercury, as reviewed by Lee²⁰ and others, stimulates antibody formation, tends to break down scar tissue and renders the spirochetes accessible. Its spirocheticidal power is doubted by Lomholt.²¹ It depends for its action on the mercuric ion, and when the mercuric ions are brought in contact with protoplasm, an organic compound, an albuminate, is formed. The mercuric salts exhibit the typical mercury actions sooner, and in small doses and are almost completely absorbed. Yet in spite of its absorbable properties it is not always found in spinal fluid of treated cases. 0.04 mg. per liter of spinal fluid is estimated as being often found. According to this figure, approximately 0.003 mg. of mercury may smuggle its way through into the cerebrospinal garrison by taking 75 c.c. as the average residual amount of fluid present in a normal individual.

DOSAGE AND TECHNIQUE

From observations made so far, it is felt that the above amount of mercury is somewhat in excess of what most cases will tolerate. Coupled with this is the uncertainty of its presence when the usual avenues of administration are employed. A more uniform deposit of mercury is necessary in order to get more certain results, especially in the moderately and far advanced cases. Small doses may do well in the first stage of the disease. At any rate, the initial dose, was never less than 0.0012 gm. in 15 c.c. of horse serum (see Chart 1). The maximum dose given was twice that, or 0.0024 gm. in 30 c.c. of serum. This last amount does seem to add to the patient's discomfort, and for this reason no attempt was made to exceed this limit. However, it is very likely that the accelerated reaction may have been shared partly, any-

way, by the increased amount of fluid injected. As to the frequency of the repeated doses, individual and clinical variations are usually a safe guide. However, after the first few doses, a more uniform routine can be followed. Weekly injections may be given. Again, in isolated cases, where tabes is an associated finding, a greater interval of time is usually necessary. In one of our cases six weeks had to elapse before a second injection could be repeated.

The patient is placed on the left side and prepared as for a spinal puncture. An 18 gauge nickeloid needle is employed. The lumbar region is entered but no fluid is drawn. (When a spinal fluid study was desired, a quantity sufficient for cell counting or for other tests was withdrawn at times). A rubber tubing attached to a 30 c.c. Luer syringe containing the serum is then inserted into the needle by means of an adaptor, and the warmed fluid at body temperature is then injected under pressure. One or two minutes are consumed in the flow of the fluid. The needle is withdrawn and a collodion coating completes the operation. The patient is kept in bed for two or three days, depending upon the subsiding temperature, on a purely liquid diet.

REACTION (See chart 1)

The reaction following the intraspinal administration of mercury serum, will vary from an immediate flushing of the face, occasionally, rarely of the body, to restlessness in some cases. In one case a severe chill followed one hour after the injection. In four cases vomiting followed the injection of our maximum dose; in one of these, a tabo-paretic, the vomiting persisted for a few weeks. Ordinarily, it will clear up in 48 hours. Headache was complained of by about two-thirds of the series. A temperature rise of varying degree is seen in all cases usually within an hour or two, reaching its maximum in about 6 hours; occasionally the rise is abrupt following the injection immediately. (See chart 2). The highest temperature recorded was 103.8 F in one case only. The temperature is apt to be greatly influenced by larger doses. In 48 to 72 hours the normal temperature is again restored. Severe pains in the legs and often in the anal region occurred in about one-third of the cases. In one case, a typical gastric crisis became evident; vomiting went in its wake and opiates had to be re-

sorted to in order to keep these in check. In another case, a girdle sensation was complained of following the injection of a second larger dose. It is of interest to note that the severe reactions, such as the crisis, girdle sensation, lightning-like pains, etc., were seen, as a rule, in cases which had had either of these at some time in the past. In the main, the irritating symptoms are negligible and seldom last more than 12 to 24 hours. In three cases urinary disturbances followed on the second day after treatment; retention in two and incontinence in one. One case on the day following an injection the patient got out of bed and was seen striking his head against the floor. In a few of our series where intravenous neocarsphenamin in doses of 0.45 gm. was tried in the interval between intraspinal injections, a decided intolerance was shown in nearly every case; mentally and physically the patient grew worse.

For the immediate relief of such symptoms opiates, in the form of the camphorated tincture, 2 to 4 c.c. every 4 hours were found sufficient. Where restlessness tended to follow an injection, 2

c.c. of the tincture would usually relieve it. Vomiting, when threatened, may be avoided or lessened by rigidly abstaining from food on the day of treatment. In the severely reacting cases, the injections were made subsequently via the cisterna magna. The results by this route were highly gratifying inasmuch as the undesirable reactions were comparatively nil. Cisternally normal cerebrospinal pressure was maintained, as the amount of fluid drawn was replaced by an equal amount of serum. The alarming reactions may further be minimized or avoided by cutting down the dose of the serum administered.

To the immediate reaction a laboratory check on the fate of the cells of the spinal fluid and the blood was attempted in but a few of the series, (see charts 3 and 4), and while the findings are interesting, further observations are imperative in order to arrive at more accurate conclusions. There is an increase in the spinal cells, especially marked during the febrile stretch and extending sometimes for days or even weeks thereafter, only to fall at the end below the number originally

CHART 3 *Immediate Effect of Hg-Serum on the Spinal Fluid Cell Count.*

Case No.	Day				Week.			
	Untreated fluid	1	3	6	1	2	3	4
22	22	88	90	76	62	40	25	18
30	13	131*	13	19	16	12	9	3
94	28		117*	60		19		8
148	43	165		100		16		15

* Few red cells present

←CHART 4→

EFFECT OF Hg-SERUM ON % Hb.
and
BLOOD CELL COUNT.

CASE NO	DAY	1 5cc				3 0cc			
		Hb.	R.B.C.	W.B.C.	C.I.	Hb.	R.B.C.	W.B.C.	C.I.
62	Before Treatment	90	5540000	7700	0.801*	90	5300000	9000	0.882*
	1	90	5460000	9700		90	5500000	10000	
	2	90	6000000	10700		90	5700000	12150	
	3	90	5910000	11250		90	6400000	12700	
	4	90	5860000	11100		90	6000000	11250	
	5	90	5570000	10200		90	5760000	11000	
	6	90	5530000	10000		90	5500000	9400	
	7	90	5500000	9000	0.801*	90	5100000	9700	0.882*
54	Before Tr.	85	5342000	8350	0.801*	85	5180000	8850	0.855*
	1	85	5380000	9050		85	5000000	9500	
	2	85	5420000	7250		85	5380000	11100	
	3	85	5620000	11550		85	5820000	11900	
	4	85	5780000	9700		85	5740000	11200	
	5	85	5640000	9500		85	5620000	10800	
	6	85	5400000	9050		85	5580000	9350	
	7	85	5180000	8850	0.825*	85	5400000	9300	0.787*

counted. The leucocytes, too, increase, reaching their maximum at the end of 72 hours, and there is some increase in the reds. The hemoglobin remains unchanged throughout.

RESULTS

My clinical contact with this series has been too brief to entertain any discussion of a cure in the results of this report. For the sake of simplicity and to avoid burdening the reader with detailed histories and laboratory reports of each individual case, a collective chart was computed (see Chart 5), showing eleven cases of general paresis, five of taboparesis, one of tabes dorsalis, and one of cerebral lues, each one with a psychosis.

While the results differ somewhat from a

laboratory standpoint, clinically gratifying results are usually observed in most cases treated. The clearing of the psychosis will begin with the beginning of the treatments and if there is no previous long standing deterioration, improvement in the mental faculties will follow early; for instance, Case 34 (W. S.), displayed on admission a very classical manic phase of the manic depressive grouping on a distinctly megalomaniac altar to the extent that he was utterly unmanageable and ether anesthesia had to be made use of in order to determine the spinal fluid dynamics in a puncture for fluid analysis. The process of etherization had to be repeated when the initial dose of serum was introduced. The patient was kept in bed during the usual post-puncture febrile stretch, with the

manic phase subsiding rapidly. He soon became quiet and manageable, but objected ostensibly to having medicine forced into him—"I am a Christian Scientist, and you have no right to." The objection at this time was mostly verbal, little difficulty was encountered in repeating the serum introduction a second time, and soon our "Scientist" was seen to turn painfully appreciative of the medical aid given him, and the next "back-shot" was asked for and readily received when due. The wife of the patient, who enjoyed the reputation of being a leading local Christian Science apostle, was, indeed, herself greatly instrumental in getting her husband "converted" medically during the heat of his protestations. She would visit the offices of Dr. Young and myself almost daily, urging us to make more frequent injections. With the serological findings only improved, he left the institution free from a psychosis and with a good insight. He is now representing one of the leading packing houses in the country.

The case just cited, is well illustrative of what is usually met with clinically in the first and possibly in the beginning of the second stage of the disease. In a well defined second and in the terminal stages the results are less encouraging. However, no matter how hopeless a case may be met with, some improvement will invariably follow. Case 12 was able to recognize members of his family after the first treatment. Cases 18 and 42 formerly were unable to walk, but are now able to amble around and to, at least in part, take care of themselves.

Whether such improvement in far advanced or terminal cases will have any material bearing upon the ultimate fate in those or not, is not yet certain. In the meantime, however, a certain economic advantage as well as a wholesome satisfaction to everybody concerned in and out of the institution is certain. There is a gain in weight in most cases. A loss will follow if the treatments are repeated too often (weekly). Improvement in speech is a constant observation and in one case of cerebral lues a strabismus was seen to clear with each succeeding treatment.

Serologically, four of the seventeen cases checked up, show almost complete negative results, while three show a tendency to clearing; one is fairly improved; and the remainder are somewhat improved. Most of the four plus fluid Wassermanns after treatment were had with a 1 c.c.

titration, while the same results were obtained with an 0.2 c.c. titration before treatment.

CONCLUSIONS

1. The central nervous system is devoid of the histo-anatomical advantages possessed by other systems of the body, in that it is not accessible to the usual avenues of therapeutic approach.
2. Suitable remedial agents, therefore, need direct introduction, by piercing the subarachnoid space anywhere in its distribution.
3. Mercury in serum in well regulated doses is a safe, useful, and convenient antispirocheticide in syphilis of the central nervous system, and its introduction in the lumbar region under pressure does not perceptibly augment its irritating properties.
4. Horse serum has an additional advantage over human serum in that the horse has, like many other animals, the necessary element which renders it immune against syphilis.
5. Neosalvarsan administered intravenously one week after serum injection brought about a relapse of former clinical symptoms probably because of the arsenical penetration made possible by the preliminary meningeal irritation.
6. The Wassermann reaction, colloidal reaction and cell count of the spinal fluid in cerebro-spinal syphilis may become negative during treatment.
7. The negative results may be obtained from either lumbar subarachnoid injections under pressure or via the cisterna magna without changing the cerebro-spinal pressure.
8. Treatment by way of the cisterna magna is more comfortable for the patient than lumbar injections.

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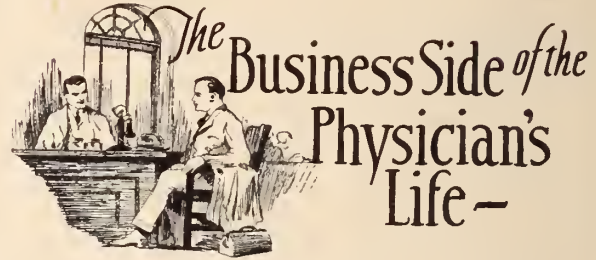
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Total percentage, 17 9/10.
 All fractions, etc., are approximate.
 Since some goiters are produced through focal infections from the teeth or tonsils or both, the survey included an examination of these organs as well as the thyroid glands.



By the time these lines will have peeped from out the page, the great national elections will be over, and the smoke of battle will have cleared from off the hills.

Then, we'll be able to go back to business.

We make a great howdy-do, we Americans, over this business of politics. Early in the year of a National Election, each one of us starts pulling in his business horns, so that when the country has gone to the "demnation bow-wows" as go it will if any party but my party gets in, then he'll have his poor little affairs so well ordered that he can peek out of his cyclone cellar and see his improvident neighbors blown over the hills and far away while he sits pretty in safety.

What a miserable farce we make of this business of business.

The corner shoe merchant greets the spring arrival of the breezy salesman with the curt statement: "Things don't look right to me this spring, 'lection's goin' to roon business. Guess I'll ride on what stock I've got." Up the block the neighborhood grocer is cutting his customary order of canned goods in half with an apologetic shrug: "You know, John, its 'lection year, and I've got to be careful."

And so on, and on, and on. Big and little fellows start to trim.

In the haunts of the traveling men, chins droop, then sag completely, and soon all is in complete rout. They've got those "No Order" blues, the bluest blues that are blown, and "believe me, brother, the country's goin' to hell right."

Back in factories, the steady stream of orders which has seemed as resistless as a mighty flood, hesitates, holds as though balanced on a slender thread for an instant, and then begins to ebb as

HOLD GOITER SURVEY IN LA CROSSE

In a goiter survey made in La Crosse schools by Dr. V. A. Gudex, deputy state health officer, 1,141 children out of 6,358 examined were found with goiter infection.

For convenience of classification all school children were divided into three groups.

Group No. 1. Early childhood age, or all below 7 years. Group No. 2. The preadolescent age, or all over 7 and below 12 years. Group No. 3. The age of adolescence, or all over 12 years.

The result of the survey is as follows:

First. Children with no defects noted of the teeth, tonsils or thyroid gland, 1,941.

Second. Children referred for treatment of dental diseases, 3,698.

Third. Referred on account of diseased tonsils, 673.

Fourth. Referred for goiter:

Group examined	No. boys	With goiter	Per cent	No. girls	With goiter	Per cent
1	539	29	5½	528	30	5 3/5
2	1,409	177	12½	1,484	292	19 3/5
3	1,178	169	14 1/3	1,220	444	36 1/3
Total	3,126	375	12	3,232	766	23 2/3

Total boys and girls examined, 6,358.

Total goiter, 1,141.

swiftly as the racing tide. Comes a day when a harassed manager tacks a notice on the factory door that work must stop entirely or that hours or days will be shortened. Well he knows that notice will measure its victims among his factory hands in hunger, debt and worry, but his hands are tied. Warehouses are jammed with goods that should be on country shelves.

We prattle a good deal about Wall Street and the mighty influence it has upon our lives. Perhaps it does, though I've never been able to tell exactly where it pinched me. And mightier far that Wall Street in the sweep of its influence is the attitude of little you and me. We're just ordinary common fellows, you and me, but as Lincoln said, "the Lord made a lot of us," and it's what we think and do that really counts.

When we act we set up a re-action that makes Wall Street's mightiest efforts as puny and feeble as the wailing of a two day old kitten.

Now, if we'd just stop to use a little of our gumption—just a little of it—we'd know that regardless of which party gets in, your fortunes and mine will be affected very little indeed, if at all. We know that's so, because it's always been so. Responsibility is a very sobering influence, and regardless of all the blatant campaign drivel that we are forced to listen to now that we've bought radios and can't tune it out, which ever party gets in will get over its campaign drunk in a hurry and settle down to business with the sobering fact confronting it that its got a big job on its hands. We'll have just about the same kind of government regardless of whether it be Republican, Democratic or Independent, with about the same number of crooks and Honest Johns to the acre, party lines regardless.

Old J. Pierpont Morgan preached and practised one precept: "Be a bull on America." He knew this country, and knowing it, had faith in it, and marched unswervingly ahead. We are citizens of the greatest country in the world, and the richest. If each and every one of us would tend to his knitting and march straight along, the business of this country would march right in step with us, right, left, right, left—

But this being 'lection year, you and I must hesitate—and you and I will pay the price.

Well, what's all this got to do with the medical profession? Nothing at all, friend, and everything. You have a good deal to do with shaping

my destinies. I have a good deal to do with yours. Austrian Jake, who runs the butcher shop around the corner has something to say about both of us.

D'Artigan said it: "One for all, all for one."

DR. WILLIAM WHYTE RESIGNS

After 26 years of service on the state board of health, Dr. William F. Whyte, Madison, president of the board, will retire from office Nov. 18.

Dr. Whyte's resignation is in the hands of Governor John J. Blaine. Nov. 18 is the anniversary of his appointment to the board by Governor Schofield in 1896.

Dr. Whyte was elected president of the board in 1903 and has held that position ever since.

He served with the American medical corps in the world war and was assigned successively to several camps in this country.

Dr. Whyte is now 73 years old, having been born in Scotland in 1851. He graduated from Northwestern Medical School, Chicago, in 1873. He moved to Madison in 1914 after having lived in Watertown, Wis., for forty years. He is married and has two sons and a daughter.

NEXT! PENNSYLVANIA STATE NATUROPATHIC ASSOCIATION OF THE AMERICAN NATUROPATHIC ASSOCIATION.

President
Dr. Meyer Bloomfield, 830 Morton Ave., Chester, Pa.
Vice President
Dr. S. D. Large, 1331 Arch St., Philadelphia, Pa.
Dr. R. A. Winson, 5536 Penn Ave., Pittsburgh, Pa.
Treasurer
Dr. T. C. Jenkins, 923 Gerrett St., Pittsburgh, Pa.
Chief Counsel
Hon. Harry A. Mackey, Chief Center Bldg., Philadelphia, Pa.
Secretary
Dr. Harry Findeison, 49 N. 52nd St., Philadelphia, Pa.

Dear Doctor:

The above Association will attempt to have a bill passed by the Pennsylvania Legislature at its next session (January, 1925).

This bill is intended to give full license and authority to the Drugless Physicians of Pennsylvania.

You, as a practical man, know that legislation cannot be secured for the mere asking. Money is needed for various purposes so that the bill will have a chance to pass. We have secured the services of eminent lawyers, who ask no fee in advance but will leave that to our judgment if the bill passes.

We have a powerful legislative committee. In their hands rests the fate of the proposed bill. If they have money to work with, there is an excellent chance for success.

If 100 Drugless Physicians will contribute \$100 each we will have a campaign fund of \$10,000. What a small amount the \$100 is for each member to pay to secure full legal standing.

I am not asking you to send this \$100 in a lump sum. Send it in installments so that by January 1st, 1925, you will have the full \$100 paid in. Some members are soliciting the wealthy members of their community who are in sympathy with Drugless healing for assistance in this matter. Up and at it. Send in your pledge and payments to the state secretary, who will send you a receipt from our treasurer, who is bonded. Let's put this across now.

Enclosed please find the pledge. Its for your protection. I am sure you will cooperate to place Naturopathy in its proper sphere as a legally recognized profession.

Very truly yours,

(Signed) MEYER BLOOMFIELD,

State President.

—From Atlantic Medical Journal, Oct., 1924.

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"LET GEORGE DO IT."

Under this head we list each month definite offers of service available to our readers—the members of the State Medical Society of Wisconsin. Additions will be made from month to month but if you have a need not covered here your Secretary-Managing Editor will do his best to fill your needs. Address J. G. Crownhart, 558 Jefferson St., Milwaukee.

1. PACKAGE LIBRARIES are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, and Control of Communicable Diseases. Address Package Library Dep't., Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. MEDICAL BOOKS will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. PHYSICIANS' EXCHANGE COLUMN is open to all members without charge.

4. NEW SCIENTIFIC PUBLICATIONS listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. STATE LAWS and departmental rulings can be secured through the Secretary's office.

6. LEGAL ADVICE upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

EDITORIALS

AN APPRECIATED EFFORT

LAST month the Journal pronounced the opening of a free blood chemical analysis service for the Wisconsin physicians. The Wisconsin Psychiatric Institute has now been doing the work for a month. Doctor Sevringhaus reports that Wisconsin physicians began to show a real appreciation of this work within a week from the time the letters were mailed. In that time about one hundred physicians from all parts of the state had requested shipping cartons for blood samples. Before the end of the first week a number of these physicians had in their hands the results of analysis of patients' blood. The use of the service is increasing.

Frequently physicians have availed themselves of the opportunity to have the analytical data interpreted by Doctor Sevringhaus, the chemist in the laboratory. Such interpretations have already been furnished for cases of chronic nephritis where the blood analysis made possible definite advice on diet. In other cases the treatment of diabetes has been facilitated by the report from the laboratory. Blood from a patient with prostatic trouble was sent with a request for advice as to the operability of the patient. One physician made use of the analysis in a suspected case of auto-intoxication to make sure that there was no nephritis as a cause for the trouble.

This new service to physicians of the state has been made possible only by the co-operation of the

Psychiatric Institute and the University of Wisconsin Medical School. Doctor Sevringhaus, who is on the faculty of the medical school, is giving part time to the direction of the blood chemical laboratory. The technicians who are doing the work are trained personally by him and the other members of the medical school faculty. This is another illustration of the broadening policy of the medical school. In addition to teaching medical students, the faculty at Madison feel that it is their opportunity to help Wisconsin physicians keep abreast of the rapid progress in medical sciences. There is no desire to build up a system of state medicine and free service to patients indiscriminately. This blood chemical service will be only a further aid to the general practitioners in every community so that they may render the best possible service to their patients.

DO NOT OVERLOOK—

IN THIS issue there is printed the address of Dr. W. C. Woodward of the American Medical Association setting forth the activities and aims of the Bureau of Legal Medicine and Legislation of the Association. This address, given at our August meeting, will be of interest to every member. We express the hope that all will read it for the valuable information it contains.

A FAMILY PHYSICIAN

FROM time to time this Journal records the passing on of a member of our Society.

This month there is included the name of Dr. E. H. Townsend, Sr., of New Lisbon.

We have placed his name on the roll. But he, himself, has placed his name in the hearts of the people he served. Doctor Townsend was one of the grand old men in Wisconsin medicine,—the splendid pioneer type of family doctor who is disappearing so fast.

THE DISTRICT SOCIETIES

AT THE 1924 annual meeting our House of Delegates endorsed the development of the councilor district societies and expressed the hope that such societies would be maintained in every district.

During the past month the Executive Secretary has had the good fortune to be present at two district meetings. Each was an outstanding success

from the point of view of scientific program, attendance, and good fellowship. Such meetings are distinctly worth while and this editorial is written only to point out that the member who misses his councilor district meeting is losing a distinct benefit to which he is entitled by reason of his membership in the State Society.

ETERNAL VIGILANCE

A PATIENT recently dropped into Dr. Blank's office, after having spent eight months and considerable money in trying to get relief from "a tired feeling with pain in his shoulders and back and quite severe pain extending down both legs." He had been treated by four physicians during the past eight months, with only temporary relief. Apparently no one of these physicians made a careful physical examination of the patient. Dr. Blank made a careful physical examination in this patient, as in all of his cases, beginning with the head and extending downward. This examination revealed only one possible cause of the trouble. The man had an extensive pyorrhea with involvement of the roots of every tooth in his mouth. The removal of all of the patient's teeth and the cleaning up of the infected gums by a good dentist, under the direction of the physician, put this man on the road to recovery and restored him to his former health and vigor within the next four months.

Mrs. Jones has had a troublesome cough for months. A careful chest examination by her family physician revealed rough breathing over both upper lobes, with an occasional medium moist rale. A sedative cough mixture gave temporary relief, but the condition showed no improvement as soon as the cough mixture was discontinued. Becoming discouraged, this patient went to Dr. Blank and on making the usual complete physical examination, he found an elongated uvula with marked congestion of the pharynx. The removal of three-quarters of an inch of the uvula and the painting of the pharynx with a 10% silver nitrate solution, together with very definite instructions that the patient must use her will power to control the cough, affected a cure in less than a month.

Mr. Brown felt an acute pain in his right shoulder and during the next ten days the pain increased in severity until it became unbearable. He sought the advice of a surgeon, who placed him in a hospital, opened and drained a large

abscess at the outer and lower margin of the scapula. The wound was packed and dressed daily, but the drainage continued for several months. The attending surgeon concluded that he was dealing with a tuberculous abscess. His failure to give careful consideration to the early history of the case, to the acute onset and severe pain and the rapid development of a large abscess, together with his failure to have laboratory study of the discharging pus, caused the patient to seek the aid of another surgeon, who was more careful in the consideration of the history and who made use of the laboratory and x-ray findings to complete a correct diagnosis.

Look back over your work for the past year. Are you taking and filing a careful history of all new patients that come to your office? The most successful members of the medical profession are doing this. A filing cabinet costs but little and pays for itself many times over in the course of a year.

Are you making a careful and complete examination of all new patients who come to your office, including an examination of the nose, mouth, throat, heart, lungs and abdominal organs? The best men of the profession are doing this and they find it worth while.

Because of the careful history and complete examination, they but seldom fail to make a correct diagnosis, and because the patient appreciates the value of the complete examination and the careful recording of the findings, he is much more likely to continue as your patient rather than to change physicians frequently.

If we are going to give our best service to our patients, we must use the best methods in our work.

T. L. H.

TAKING THE LIGHT FROM UNDER THE BUSHEL

While every state has its penal and eleemosynary institutions, it is surprising how little the average citizen knows about the places that his taxes go to maintain. The need of disseminating information regarding such institutions has been recognized by Wisconsin, which, through its state medical journal, is publishing a series of messages to the medical profession on the Wisconsin State Sanatorium. That the public of that state needs information is evidenced from the fact that while it is estimated that there are about 17,000 tubercu-

lous persons in Wisconsin, and the state sanatorium has beds for only 1,350, there are today, and always have been, a number of vacant beds. Such conditions undoubtedly obtain in other states. The state board of control is to be congratulated on bringing to the attention of Wisconsin physicians the facilities which the state offers to those afflicted with tuberculosis.—*Jour. A. M. A.*, Oct. 11, 1924.

THE JOURNAL CLINIC

Edited and Published by

THE BUREAU OF POST-GRADUATE MEDICAL
INSTRUCTION

UNIVERSITY EXTENSION DIVISION
The University of Wisconsin

REPORT OF AN UNUSUAL CASE OF VARICELLA.

BY ROY M. GREENTHAL, M.D.,

MILWAUKEE.

R. H., a very well nourished boy of six, was first seen November 26, 1923, because of a cough and nasal discharge which had persisted for three days. The cough at times was so violent as to cause vomiting. There was a history of exposure to pertussis while at school. The physical examination disclosed merely a congested pharynx with hyperplasia of the lymphoid follicles. The lungs were normal and likewise the tonsils and adenoids.

The patient complained of pain on swallowing on November 30th. His cough was not as severe as it had been. The temperature was 99 degrees and examination of the throat showed a very mild tonsillitis. The next day an erythematous eruption appeared over the entire body. This eruption was more marked in the axillae, groins and over the flexor surfaces of the arms. There was a circumoral pallor. The tonsils were very slightly inflamed, but there was no eruption on the soft palate. The temperature was 98.6 degrees and the patient felt very well. He coughed but rarely. He was isolated as a suspected case of Scarlet Fever. The eruption lasted for three days and then disappeared. The tonsils and pharynx still remained slightly congested. There was no fever at any time and the patient felt very well.

On December 7th the patient developed Varicella. He was quite ill and covered with a profuse eruption. Vesicles were present in the mouth and on the palate. The temperature was 103 degrees. In a few days the sites of many lesions

showed extensive ulceration and many ulcers were covered with a heavy impetiginous crust. The temperature was 101 degrees on December 10th. The patient appeared pale and had lost much weight. The urine showed albumen but no casts. Two weeks later the body was entirely free from the eruption, although there were numerous scars remaining. The urine at that time was normal and the patient resorted to his usual good health.

The only available reference to this type of Varicella was found in the text-book of Porter and Carter who state: "Occasionally there will be a prodromal rash which is remarkably like the rash of scarlet fever: This eruption may last from 1 to 3 days and disappear with the outcrop of the true varicella lesions. The cases in which this rash is encountered are usually quite severe. The patient is ill, the fever is high, and the true varicella lesions may be followed by extensive sloughs. Sometimes such patients develop septicaemia and die. The phenomenon is probably due to a coincident infection with the streptococcus."

PREVENTIVE MEDICINE

Edited by

W. D. STOVALL, Chairman

Section on Preventive Medicine, State Medical Society of Wisconsin

This Section is open to all members of the State Medical Society and others who wish to discuss subjects pertaining to Public Health. Original articles, and criticisms of statements appearing in this section are earnestly solicited. Questions concerning public health procedure will be answered. Address communications to Dr. W. D. Stovall, State Laboratory of Hygiene, Madison, Wis.

SCHICK TEST AND TOXIN-ANTITOXIN IN DIPHTHERIA PREVENTION*

BY W. W. BAUER, M.D.,

COMMISSIONER OF HEALTH,

RACINE

A discussion of diphtheria prevention must develop first need for such prevention. To realize this need one has only to call to mind the contagious and highly fatal character of diphtheria. Going back only forty years we find not uncommonly death percentages in excess of one-half of those ill with the disease and deaths always running above one-third of the cases. Then came the discovery in 1883 of the diphtheria bacillus by Klebs and its successful cultivation one year later by Loeffler from which it takes its name of Klebs-Loeffler bacillus. Following the discovery of the

cause of this important disease it was but natural that further investigation should be made. This culminated in 1895 in the announcement of a cure for diphtheria in antitoxin. Almost immediately the death rates began to decline and for a while it seemed that diphtheria had been conquered.

As time went on, however, it became apparent that the cure was in no wise a complete means of prevention. The curative use of antitoxin saved lives and its prophylactic use undoubtedly prevented some cases of the disease. There was much left to be desired, however, because with the growth of better means of travel and the increasing congestion in metropolitan areas the opportunities for infection were constantly increasing. Case rates in relation to population remained virtually the same as before antitoxin and with increasing populations it is obvious that the gross number of cases increased. Decreasing death rates reduced the gross number of deaths until a low level of from 5 to 8 per cent of deaths was reached and from that time on with the gross number of cases increasing and death rates remaining stationary the inevitable outcome was an increase in gross diphtheria deaths.

This is not the place to discuss the cause of diphtheria deaths. Such a discussion would constitute a formidable paper in itself. Suffice it to say here in order that we bear it in mind in relation to the rest of this discussion, that diphtheria deaths are due mainly to failure on the part of parents to seek medical attention in time; failure on the part of physicians to make throat cultures in all cases of sore throat; the failure to administer antitoxin early enough and in large enough doses; objection on the part of families to the use of antitoxin on whatever reason based and to the employment for treatment of diphtheria of the various cults and "-isms" now unfortunately so powerful in their appeal to popular imagination and credulity.

It was inevitable that preventive means should be found against diphtheria. The first step accomplished was the application by Shick of the knowledge that the blood of some individuals contained an antibody toward diphtheria. Reasoning that if this antibody could be discovered chemically in the laboratory and could be used to neutralize the diphtheria toxin, he made effort to test the neutralizing power of this antibody against toxin placed in the body itself. For those of my

*Read before the State Conference of Local Health Officers at Madison, Wisconsin, September 25, 1924.

hearers who are not physicians or nurses it should be noted here that toxin is the poisonous product of the growth of the diphtheria bacillus either in the body or in artificial medium, to which is due the damage done by diphtheria to heart, kidneys, nerves and other tissues of the sufferer. The purpose of the Schick test is to classify patients into two groups, those who may have diphtheria and those who may not. Such a test obviously must cause little or no discomfort; it must be accessible to be interpreted; it must be reliable. The result of much laboratory and clinical experimentation was the development of the Schick test in its present form, consisting of an injection into the skin (not under it) of a measured dose of diphtheria toxin. This is usually done upon the left forearm. Nothing is to be gained by entering upon a description of the technique of injection—this must be learned by observation and practice.

Those individuals who are susceptible to diphtheria will develop at the place of injection an area of redness sharply outlined and varying in size from a silver quarter to a half dollar. The maximum intensity is reached from the fifth to the seventh day following injection and this obviously is the best time to make interpretations. A characteristic of the Schick test is a small area in its center which tends to be whitish rather than red. This is best observed from a distance of thirty-six to forty-eight inches and with the eyes narrowed in the manner of a painter seeking a perspective of his canvas. From the height of this reaction there is a decline with some peeling of the skin and finally the development of a brown spot of pigment which may persist for six months or longer. Such a reaction is called a Schick positive. It means that the measured dose of toxin is capable of producing a tissue reaction because of the absence of antibody in the blood of that individual. A Schick positive person therefore is one who is not protected against diphtheria.

Opposed to the Schick positive is the Schick negative which is characterized by the absence of reaction at the point of injection and which means obviously the incapability of the toxin to produce a tissue reaction. A properly performed Schick negative indicates natural protection against diphtheria by reason of the antibody in the blood of the individual.

Certain confusing factors in the interpretation of Schick tests are the pseudo or false reactions.

These are attributed to the presence in the diphtheria toxin of certain other protein products of bacterial growth. They are to be interpreted as susceptibility to foreign protein and not as diphtheria susceptibility. In order that error from these pseudo reactions may be eliminated it is good practice to use the control test in addition to the Schick test proper. The control test is performed in exactly the same manner as the Schick test at another point upon the same forearm or upon the opposite forearm, with toxin which has been heated for ten minutes to 60° Centigrade. A control showing protein susceptibility differs from the positive Schick in that it is not sharply outlined; has no whitish center; does not become pigmented; does not peel, makes its appearance sooner and disappears more quickly than the true Schick.

The various classes of Schick reaction are as follows (Zingher):

A Schick positive consists in the appearance of a typical Schick reaction with unheated toxin and no reaction in the control test.

A positive pseudo, or better, a positive combined consists of the appearance of a typical Schick reaction plus the pseudo-reaction with the unheated toxin and of a pseudo reaction only, with the heated toxin.

The Schick negative consists of the appearance of no reaction at either point of injection.

The negative pseudo-reaction consists of false reactions at both points of injection.

The positive Schick and the positive combined reactions indicate susceptibility. The negative and negative pseudo reactions indicate immunity. It is well to remember, however, that except for experienced Schick testers it is safer to read all red reactions as Schick positive and to ignore the pseudo reaction entirely. By this policy no one will be given a sense of false security by reason of an erroneous interpretation. This is good practice because immunization of an individual whose susceptibility is questioned cannot possibly do harm. Moreover, errors in certifying immunity react disastrously upon the public mind, and bring discredit upon the entire process of immunization.

As to the percentage of individuals who are positive and negative respectively reference is made to the accompanying tabulations.

It will be seen that susceptibility varies widely in these groups. Those coming from among the

so-called poorer classes in cities where large families and congested living conditions predominate, are more likely to be immune than those coming from the so-called better classes or from the country. In both of these latter groups there is less contact with other individuals than in the former. The explanation for immunity seems to lie in repeated light contacts and the consequent stimulation of the immunity mechanism of the body. It is not surprising to reflect that the protected individual, like the hot house flower, is not so well equipped to meet adverse conditions as the more hardy product of a less sheltered life. It is noteworthy too that among those groups showing smaller percentages of immunity those who are immune became so at a later age and in these same groups fewer adults are immune than in those which show large percentages of immunes among the children:

TABLE I*
PERCENTAGE OF NATURAL IMMUNITY IN VARIOUS SCHOOLS

School	Type of District	Schicks Inspected	Positive	Per cent	
				Negative	Immune
A	Poor dwellings, foreign	119	32	87	73
B	Poor and mod. good residence	316	195	121	32.3
C	Slum, foreign	357	126	231	64.7
D	Good, residence	308	202	106	34.4
E	Good, residence	248	170	78	31.4
F	Poor, foreign	847	355	492	58.0
G	Good, residence	134	98	36	26.9
H	Good, residence	57	47	10	21.3
J	Good, residence	199	141	58	29.2
K	Poor and mod. good residence	376	242	134	35.6
L	Good, residence	182	137	45	24.7
M	Poor, foreign	509	286	223	44.0
N	Poor, foreign	441	256	185	41.9
O	Orphanage, school	117	65	52	44.5
P	Good, residence	305	210	95	44.2
Q	Good and poor residence	89	48	41	41.4
Summary		4604	2610	1994	42.2

*Milwaukee Health Department.

TABLE II*
NATURAL IMMUNITY IN UNSELECTED GROUP
(All Ages)

	Number	Per cent
Schick negative originally	50	41
Schick positive originally	71	59
Re-Schicked, positive	0	0
Re-Schicked, immune	19	100

*Racine Health Department.

TABLE III*
FAMILY SCHICK RECORDS

Number of children in family	Number of Families	Number of families according to Schick positive children found						
		1	2	3	4	5	6	9
Two	90	30	60					
Three	41	6	16	19				
Four	15	4	2	4	5			
Five			1				1	
Six							1	
Nine								1

*Milwaukee Health Department.

This study of family immunity is interesting because it shows that in any one family the majority will show the same Schick reactions whether they be positive or immune.

The Schick test is only the first step in the program. Having determined who is immune and who is not we have gained something. In a Schick tested institution, for example, the appearance of a case of diphtheria would be the signal for immunization with antitoxin not of the whole group but of only those who need it as shown by the positive Schick. A saving in time and expense is thus arrived at as well as a saving of unnecessary pain. It is desirable of course that we go farther than just Schick testing and proceed to immunization of those who are not naturally immune.

This is not the place to discuss the composition of toxin-antitoxin in detail. We shall be content with referring briefly to the fact that it is a mixture of diphtheria toxin and antitoxin with a slight predominance of toxin and that it has the property of gradually releasing toxin when injected. The action of toxin-antitoxin depends upon the stimulation of the human body's inherent ability to produce anti-diphtheria resistance.

Immunization by means of toxin-antitoxin is the injection of one cubic centimeter intramuscularly in three doses seven days apart. The immunity acquired is the result of antibody production by the body itself under the stimulus of the gradually released toxin which is present in quantities too small to do injury but sufficient to bring the protective mechanism into play. The production of this immunity takes time and full protection is not acquired in less than from twelve weeks to five or six months.

TABLE IV*
PER CENT OF SUCCESS WITH TOXIN-ANTITOXIN
IMMUNIZATION

Re-Schicked May, 1923

School	Toxin-Ant. Completed		Per cent Immune from Toxin- Ant. In- jections		
	Dec. 1922	Total	Positive	Immune	jections
B	163	74	17	57	77
C	72	45	9	36	80
D	153	102	3	99	97
E	144	100	8	92	92
F	104	60	3	57	95
G	216	121	8	113	96
II	38	17	0	17	100
J	67	41	1	40	97
K	84	53	2	51	96
L	101	52	3	49	94
Summary	1142	665	54	611	92

*Milwaukee Health Department.

The percentage of success in immunizing children varies somewhat, as shown in the preceding table. With a good preparation of toxin-antitoxin an average of 95% or more may be expected. This table is significant in that it shows only 78% of immunity in the first school and 80% in the second. At this juncture a different preparation of toxin-antitoxin was substituted. The greater percentage of immunity subsequently obtained speaks for itself. For the small per cent who fail to attain immunity with three doses of toxin-antitoxin an additional dose should be administered and by this means all but one or possibly two per cent may be successfully immunized. The data regarding success of the above immunizations were obtained by the performance of a second Schick test upon the children, those showing a positive Schick being of course the non-immunes.

A later and most noteworthy development in diphtheria prevention is the so-called Park modification of Schick's original test. Everyone who has given toxin-antitoxin has noted that occasionally upon superficial injection there has appeared a greater reaction than was expected and has possibly noted the similarity of this reaction to the Schick test. It remained, however, for Dr. William H. Park of the New York City board of health to observe that this superficial injection of toxin-antitoxin could be interpreted as positive or negative and made as accurate an index of susceptibility as was the original Schick test. It differs

from the Schick proper in that it is less sharply defined; appears sooner; is best interpreted on the fourth day; and is usually lacking in the whitish center.

TABLE V

Case No.	Age	Schick Negative	Park Negative	Schick Positive	Park Positive
1	3	x	x		
2	5	x	x		
3	7			x	x
4	adult			x	x
5*	2	x	x		
6	4	x	x		
7	8			x	x
8	10			x	x
9	6	x	x		
10	adult	x	x		
11	11	x	x		
12	adult	x	x		
13	1	x			x
14	7	x			x

*Re-Schick six months after T. A.

The above comparisons of the Schick test and the Park modification are selected from a group now under observation by the writer. It shows very strikingly that the Park test is as good as the Schick test and possibly better because the only variation between the two is in favor of greater delicacy of the Park test.

It has long been the conviction of workers in diphtheria prevention that the Schick test in children under five may well be omitted. At this age more than 95% are susceptible, as shown by the figures of Park, Zingher, Schroeder and other workers. With such a large percentage of susceptibility and with an immunization method known to be free from danger it was obviously more economical and less painful to the children to omit the Schick and control tests and proceed immediately to immunize, reserving the Schick test for the checking up as to immunity. With the advent of the Park modification of the Schick test it becomes possible to substitute this for the Schick and to have our record of original immunity at the same time that we give our first injection of toxin-antitoxin. If the Park should prove negative it is obvious that the second and third immunizing injections need not be given. The advantage of this procedure needs no comment.

To those about to advocate diphtheria prevention in a new field certain practical points will be of interest. It is probably unwise to proceed

rapidly in introducing this important preventive measure to a community. It is best to begin with talks and newspaper publicity and by offering the immunization at a given time and place regularly, for example once a week. The returns at first will be small, but the word will spread, and later response will be gratifying. A great deal of literature concerning the Schick test and toxin-antitoxin is available. Some of this literature contains references to "vaccination" against diphtheria. This is unfortunate because diphtheria immunization is not accomplished by means of vaccine and the temporary advantage gained by using a familiar word is not justified by the ultimate confusion which results in the minds of parents. We who are attempting to educate the public in correct health ideas should not sacrifice our own correctness for the sake of a doubtful return. Moreover many short sighted people do not believe in vaccination and yet those same people will accept diphtheria immunization unless it is likened to vaccination. It is just as well to secure immunization against diphtheria first thus making it possible frequently to secure consent for small pox vaccination from those who previously opposed it.

Records should be kept of the progress of diphtheria prevention work. These should be brief and should include only the essential facts needed. A three by five card with spaces for the date of test, the interpretation whether positive, combined, negative or pseudo and the date of issuance of a certificate. This card can be so designed that it is executed exclusively by the use of an ordinary rubber dating stamp thus obviating the likelihood of illegible words written hurriedly by hand. A card of this type for the original Schick test and toxin-antitoxin and a similar one for re-Schick, the latter differing in color from the former, make a convenient reference since they can be clipped together and filed permanently when the case has been finished. Certificates are of the utmost importance in work of this kind. There should be a certificate showing that an individual has been found negative to the Schick test or the Park test as the case may be. There should be another certificate more elaborate in nature certifying that the individual has received a course of toxin-antitoxin immunization. It should be noted that this latter certificate does not certify to immunity but simply to the administra-

tion of the treatment. It should bear on its face a recommendation for the return of the patient upon a specific date six months after the completion of the toxin-antitoxin injections and a space wherein an embossed seal of immunity can be added when the re-Schick has been shown to be negative. These certificates not only assure the return of many children for the re-Schick but they appeal to the children and are valuable and legitimate propaganda among neighbors and friends of those who have already availed themselves of this protection. All medical history sheets used by the department for clinics, hospitals or school records should contain a question with reference to diphtheria prevention thus bringing it to the attention of teachers, parents and children.

The use of the active immunization procedure and of the Schick test should be attempted only by persons who understand it and who realize not only its advantages but its limitations as well. Much harm can be done by over-enthusiasm causing people to expect more than can be realized, with the inevitable reaction casting discredit upon the entire public health program. The Schick test and toxin-antitoxin are powerful and important weapons in the control of diphtheria but they are by no means the only ones. It must not be forgotten that nose and throat cultures of contacts to cases and the isolation of carriers remains just as important a procedure as ever. It must be remembered that the early use of antitoxin in large doses is important for cases already developed. The immunization of contacts with the original curative antitoxin must not be forgotten. The length of time required for immunization with toxin-antitoxin should be estimated liberally at six months and children receiving toxin-antitoxin should, if they become contacts to cases within that time, be immunized with antitoxin. No apprehension need be felt concerning the use of such immunization following toxin-antitoxin. It must be borne in mind that toxin-antitoxin immunization, because of the time required for its development, is absolutely worthless during an epidemic. The occurrence of an epidemic should, however, be used to emphasize the necessity for continuous preventive efforts when the epidemic has subsided.

A word of warning is in order concerning the relation of the Schick test and toxin-antitoxin to the question of diphtheria carriers. A carrier, as

you know, is an individual harboring diphtheria bacilli of a virulent type and yet not affected with clinical diphtheria. Such a person is obviously a source of many cases of diphtheria. Contrary to a common belief, the administration of antitoxin has no effect upon the development of the organisms in the throat. Nor is the administration of toxin-antitoxin of value in clearing up the positive throat culture. An interesting and practical application of the Schick test to carriers consists in the performance of the test and at the same time in the performance of a virulence test on guinea pigs using organisms from the patient's throat. If the Schick test is positive (indicating susceptibility) there is a strong presumption that the organisms in the throat are not virulent, otherwise the patient would be ill. Coupled with a negative virulence test the presence of a positive Schick is sufficient to justify the release of that patient from quarantine even though the throat culture may remain positive. With a negative Schick a negative virulence is of course basis for release whereas a positive virulence and a negative Schick confirms both the virulent character of the organisms and the immunity of the carrier.

CONCLUSIONS

1. The Schick test is a safe, reliable means of distinguishing those who cannot have diphtheria from those who can.
2. Park modification of the Schick test is just as reliable as the Schick test and possibly somewhat more delicate, besides saving the necessity for the Schick and control test injections.
3. City children from congested districts are more often immune than country children and city children from the so-called better classes.
4. City children from congested districts become immune earlier in life than those from the so-called better districts or from country districts.
5. Success in immunization depends upon the preparation of toxin-antitoxin used. With the best preparations more than 90% of success may confidently be expected and 95% is not infrequently realized.
6. Recognizing the importance of toxin-antitoxin immunization it must be remembered that culturing, isolation of contacts, immunization of contacts with antitoxin and vigorous treatment of cases are important means of diphtheria prevention which must not be neglected in our enthusi-

asm for the newer method which promises so much.

7. Introduction of the new diphtheria prevention should be made cautiously because of the well known attribute of skepticism concerning that which is unfamiliar.

8. The Schick test in conjunction with the virulence test is of value in terminating quarantine of diphtheria carriers. A positive Schick and negative virulence or a negative Schick and negative virulence would justify releasing with a positive culture.

PUBLIC HEALTH NOTES

FROM THE

STATE BOARD OF HEALTH

The diphtheria rule must be conformed to strictly, a physician was informed. That is to say, it cannot be permitted to have release cultures taken until the ten-day quarantine has expired. The rule was passed because some physicians, as a special favor to the family, started taking release cultures on the second, third, fourth or fifth day after the case was diagnosed.

An undertaker was directed to use his influence to discourage the holding of public services at the re-interment of bodies from grave to vault, inasmuch as disinterred bodies are regarded as infectious and dangerous to the public health.

Facts were presented showing that only six states (Idaho, Oregon, Washington, Montana, Utah and Wyoming) have a greater incidence of goiter than Wisconsin, where 60 per cent of the girls and 15 per cent of the boys have the malady at some period of their lives.

Advice was given as to the benefit derivable from the use of pertussis vaccine. For a child two weeks old, one-half the ordinary dose was recommended. "It is not efficacious in all cases," the letter said, "and not so much in some cases as in others. It is used in the treatment as well as prevention of the disease and never does any harm. The material is distributed by the state laboratory of hygiene to physicians."

Complaint was made of the defiant attitude of a tuberculous man who made a practice of expectorating on the sidewalks and otherwise violated the law made for such cases. The board advised that upon complaint to any judge of a court of record and upon proof being presented, the individual may be committed to a state or county tuberculosis hospital.

It was advised that a law exists authorizing the quarantine of any district for the purpose of controlling rabies. When this is established, no dog is permitted to run at large in such district but must be kept securely confined, tied or held in leash or muzzled, and in the immediate control of the owner or keeper at all times. Any dog not so controlled is declared to be a public nuisance and may be killed by any person without incurring liability.

Inquiry was made by an American Legion post as to the means available for recording with registers of deeds the certificates of death for men who died in the world war. It was replied that no provision is made by the federal government for reporting to any of the states the deaths of soldiers or sailors who were legal residents of such states. "If any arrangement can be made for filing a legal record of these deaths either in the register of deeds office of the county where the soldiers lived or in the state office, we will be glad to assist," the department answered. All such records are presumed to be on file at Washington.

Compilations of Wisconsin deaths for 1923 disclosed 1,710 from tuberculosis, the lowest on record; 2,917 from pneumonia, and 347 from diphtheria.

In a locality where the health officer resigned, it was the State Board's instruction that the local board call a meeting at once and appoint a new health officer, inasmuch as no acts of the local board are legal without a health officer who has taken the oath of office and qualified.

When necessary to close schools on account of a disease outbreak, the teacher should be paid her regular compensation without reduction, provided she has been ready at all times to continue her school work.

RADIOLOGICAL SECTION ORGANIZES

The section on radiology, created by the 1924 house of delegates of the State Medical Society, perfected a permanent organization at Milwaukee Wednesday noon, October 29th, in connection with the Tri-State meeting. With upwards of twenty-five in attendance, Dr. M. J. Sandborn of Appleton was the unanimous choice for chairman of the section and Dr. C. W. Geyer, Milwaukee, was unanimously elected secretary-treasurer.

Upon motion Doctor Sandborn appointed the following to serve on the executive committee: Dr. Howard Curl, Sheboygan, vice-president-elect of the State Society; Dr. C. R. Bardeen, Madison, and Dr. Jos. P. McMahon of Milwaukee. The officers with the executive committee will meet in the near future to map out the exact activities of the new section.

It was the sentiment of the members present that the section might well hold a distinct meeting solely for those members of the State Medical Society interested in radiology. Such a meeting, if at all, will be at a time other than the date for the State Society meeting. The officers of the executive committee will then assist the program committee of the State Medical Society in securing suitable program material on the subject that will be of interest for the general program. Members of the State Medical Society desiring to be informed of any future meetings of this section are urged to forward their name with that request to Dr. C. W. Geyer, 221 Grand Ave., Milwaukee.

MICHIGAN AND MINNESOTA TO EMPLOY LAY SECRETARY

The House of Delegates of both the Michigan State Medical Society and the Minnesota State Medical Association adopted motions for the employment of a lay secretary at their recent annual meetings. In Michigan the dues were raised from \$5 to \$10 annually. West Virginia adopted the lay secretaryship a few months ago.

With the addition of these three societies, six state societies now employ a full time lay secretary. These states are Ohio, Virginia, Wisconsin, West Virginia, Michigan and Minnesota. Five states have full time secretaries secured from among their membership. These states are Pennsylvania, Massachusetts, Texas, California and Missouri.

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

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JOHN MINAHAN, Green Bay, 2nd Vice-President

C. D. BEEBE, Sparta
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LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES

Table with 3 columns: County, President, Secretary. Lists medical society officers for various Wisconsin counties including Ashland, Barron, Brown, Calumet, Chippewa, Clark, Columbia, Crawford, Dane, Dodge, Door, Douglas, Dunn-Pepin, Eau Claire, Fond du Lac, Grant, Green, Green Lake-Waushara-Adams, Iowa, Jefferson, Juneau, Kenosha, La Crosse, La Fayette, La Payette, Langlade, Lincoln, Manitowoc, Marathon, Marinette-Florence, Milwaukee, Monroe, Oconto, Oneida-Forest-Vilas, Outagamie, Pierce, Portage, Price-Taylor, Racine, Richland, Rock, Rusk, Sauk, Shawano, Sheboygan, St. Croix, Trempealeau-Jackson-Buffalo, Vernon, Walworth, Washington-Ozaukee, Waukesha, Waupaca, Winnebago, Wood.

SOCIETY PROCEEDINGS

BROWN-KEWAUNEE COUNTY

The Brown-Kewaunee County Medical Society met at the Hickory Grove Sanatorium at Green Bay on October 2nd. The program was turned over to the Wisconsin Anti-Tuberculosis Association officials from Milwaukee. Talks were given by Miss Anna Thompson, nurse, who has been making a survey of conditions in Brown County, and by Dr. A. A. Pleyte, examiner. Both described the follow-up system for keeping in touch with discharged patients and "contacts"; that is, those who are or who have been closely associated with tubercular patients. The importance of early reporting of tuberculosis cases was pointed out to the physicians. A number of examinations were held the following day.

CRAWFORD COUNTY

The Crawford County Medical Society held its annual meeting at Gays Mills on October 2nd. Dr. C. A. Armstrong presided at the two-hour discussion of medical subjects. The following officers were elected for the coming year: Dr. W. W. Coon, Gays Mills, president; Dr. T. E. Farrel, Seneca, secretary and treasurer; Dr. A. J. McDowell, Soldiers Grove, delegate; and Dr. C. A. Armstrong, Prairie du Chien, alternate.—T. E. F.

DANE COUNTY

The Dane County Medical Society held a dinner and meeting October 14th at the Madison Club, Madison. Mr. J. G. Crownhart, executive secretary of the State Medical Society, gave a talk on "The Present Aims of the State Medical Society." A case report was made by Dr. H. M. Carter, and a paper on "Post Operative Pneumonia" was given by Dr. R. B. Montgomery. Dr. Frederick J. Gaenslen of Milwaukee discussed the problems of the general practitioner in the field of orthopedics.—E. S. J.

MARINETTE-FLORENCE COUNTY

The Marinette-Florence County Medical Society met September 25th at Marinette. Dr. T. J. Redelings presided. Dr. Louis F. Jermain, dean and professor of medicine at Marquette University, Milwaukee, held a clinic. The University Extension Division of the University of Wisconsin are giving a course in post-graduate medical instruction at Marinette. The program, which began October 10th, follows:

October 10th, Dr. J. A. E. Eyster, "The More Common Types of Chronic Valvular Heart Disease." November 21st, Dr. Wm. S. Middleton, "The Clinical Study of the Diaphragm." December 12th, Dr. Frederiek A. Davis, "Ocular Manifestations in General Diseases." January 9th, Dr. H. C. Schumm, "Fractures of Long Bones."

A meeting of the Marinette-Florence County Society was held at the Powers Sanatorium, Powers, October 15th. Dr. Abbott H. Montgomery, associate professor of surgery of Rush Medical College, spoke on "Complications and Treatment of Some Fractures of the Long Bones"; Dr. Donald P. Abbott, Rush Medical College, gave a paper on "Diagnosis and Treatment of Some Solar Conditions."

MILWAUKEE COUNTY

The Milwaukee County Medical Society met at the Hotel Pfister, Milwaukee, on October 10th. The meeting was given over to Dr. W. B. Peek, managing director of the Tri-State District Medical Association and Dr. Clifford U. Collins, president, who discussed arrangements for the meeting of the Tri-State society in Milwaukee, October 27th to 30th.—E. L. T.

OUTAGAMIE COUNTY

On September 30th the Outagamie County Medical Society held the first fall meeting at Riverview Sanatorium, Kaukauna.

A baseball game, with doctors as players, inaugurated the day's meeting. A dinner followed the game, during which two patients in the sanatorium entertained the guests with musical selections.

After the dinner the following program was presented: Papers were given by Dr. Boyd, Kaukauna; Dr. H. S. Pattison, New York; of the National Anti-Tuberculosis Association and Dr. A. A. Pleyte, Milwaukee, of the Wisconsin Anti-Tuberculosis Association and by Miss Anna Thompson also of the Wisconsin Anti-Tuberculosis Association. The papers were all upon the subject of prevention and treatment of tuberculosis.

There were two applications for membership; namely, Dr. Carl Neidhold of Appleton, and Dr. David M. Gallaher of Kaukauna, Wis.—E. L. B.

RACINE COUNTY

A meeting of the Racine County Medical Society was held October 13th at St. Mary's Hospital at Racine. Dr. H. E. Marsh, Madison, gave an address on the subject of "Prevention and Treatment of Scarlet Fever," discussing the skin test for susceptibility, the immunization with toxin and the treatment of the disease with antitoxin.—S. J.

ROCK COUNTY

Forty-five physicians attended the September meeting of the Rock County Medical Society at Mery Hospital, Janesville, on September 30th. The feature of the meeting was a lecture by Dr. Russell Carman, Rochester, Minn., head of the X-ray department of the Mayo Clinic. His subject was "X-ray Diagnosis of Gall Bladder Diseases."

Dr. Sisk, Madison, formerly of the Mayo Clinic, and Dr. Brown, Jackson Clinic, Madison, attended the meeting. Dr. W. T. Clark, Janesville, and Dr. A. C. Echternaet, Beloit, had charge of the program.

SHEBOYGAN COUNTY

A meeting of the Sheboygan County Medical Society was held at the Association of Commerce Club Room, Sheboygan, on October 9th. Dr. Hugh T. Patriek of Chicago spoke on "The Differential Diagnosis of Organic and Functional Disease of the Nervous System." A dinner preceded the scientific program.—J. G. H.

SEVENTH COUNCILOR DISTRICT

Over a hundred physicians attended the annual meeting of the Seventh Councilor District held at the Elks' Club at La Crosse, October 2nd. The meeting was

opened with an address of welcome by Dr. E. E. Evans, councilor of the district. Dr. G. W. Lueck, Oak Forest Sanatorium, spoke on the significance of constitutional symptoms in tuberculosis, and pointed out many important characteristics during his talk. Dr. R. L. MacCormick, of Whitehall Community Hospital, speaking on the small hospital, told of many advantages and disadvantages of a small institution. Dr. Carl Beebe of St. Mary's Hospital, Sparta, reported on cases of delayed union of bones and its causes.

"The Value of Natural Food Salts and Vitamines in Human Food" was the subject of a talk given by Dr. W. A. Henke, of Grandview Hospital. Dr. S. B. Gunderson, Luthern Hospital, La Crosse, spoke on "Regional Anesthesia with Special Reference to Sacral Anesthesia."

Dr. F. C. Suiter, La Crosse Hospital, related episodes from his trip through the Hawaiian Islands. Mr. J. G. Crownhart, secretary of the State Medical Society, Milwaukee, spoke on the general conditions of the society in Wisconsin.

Dr. H. E. Wolf, La Crosse, chose as his subject "Some Interesting Bone Pathology, with Case Reports." "Dietetics in Diabetes" was discussed by Dr. M. Sivertson, Lutheran Hospital. Dr. James Evans, St. Francis Hospital, La Crosse, read a paper on symptoms resembling those of appendicitis. Dr. E. H. Townsend, La Crosse, concluded the discussion with a talk on "Ectopic Pregnancy."

At the election Dr. Spencer Beebe, Sparta, was made president; Dr. E. E. Evans, La Crosse, vice-president; and Dr. John M. Scantleton, Sparta, secretary. Sparta was selected as the next meeting place of the district.

NINTH COUNCILOR DISTRICT

Physicians from many northern Wisconsin cities attended the Ninth Councilor District Medical Society's fall meeting which was held at St. Joseph's Hospital at Marshfield on September 30th.

The program was opened with a demonstration of clinical cases. Talks were given on "Extra-Uterine Pregnancy," by Dr. H. A. Vedder; "The Parathyroids," by Dr. H. H. Milbee; "Head Injuries," by Dr. V. A. Mason; "Protein Therapy," by Dr. K. W. Doege.

After a banquet at the Nurses' Home, Dr. F. A. E. Eyster, Department of Medicine, University of Wisconsin, discussed "Modern Ideas of Various Heart Lesions." Dr. C. A. Hedblom, professor of surgery, University of Wisconsin, gave an illustrated lecture on "The Various Phases of Lung Surgery."

TENTH COUNCILOR DISTRICT

The Tenth Councilor District Medical Society held their twenty-fourth annual meeting at Eau Claire on October 9th. The program was opened with three clinics at Sacred Heart Hospital. The surgical clinic (non-operative), acute and sub-acute abdominal conditions, was in charge of Dr. A. A. Law, professor of surgery, University of Minnesota. The medical clinic on cardio vascular diseases was conducted by Dr. Jos. I. Evans, professor of clinical medicine, University of Wisconsin. The chest clinic was conducted by the medical staff of the Wisconsin Anti-Tuberculosis Association.

In the afternoon the following papers were given: "Medico Legal Problems of Industrial (Compensation) Surgery," by W. C. Fraser, Minneapolis, special adjuster, Fidelity and Casualty Co., New York; discussion by Drs. Werner, McHugh and Butler; "Occiput Posterior Positions" (with demonstration), by Dr. J. C. Litzenberg, Minneapolis, professor of obstetrics, University of Minnesota; discussion by Drs. Riley, Robinson and Amundson. "Extra Pleural Thoracotomy," by Dr. A. A. Law, professor of surgery, University of Minnesota. Discussion by Drs. Midelfart, Derge, Dawson and Lyman. "The Clinical Application of Modern Biochemistry in Nephritis," by Dr. Jos. I. Evans, professor of medicine, University of Wisconsin. Discussion by Drs. Ziegler, Babcock and Leasum.

Following the afternoon session a banquet was given at Hotel Eau Claire. Mr. J. G. Crownhart, secretary of the State Society, spoke on the lay educational problems. The members ended the day with a theater party.

ACADEMY OF MEDICINE

The first autumn council meeting preceded the business session of the Milwaukee Academy of Medicine held October 14th in the assembly hall of the Health Service Building, Milwaukee. Talks were given by Dr. George Stevens on "The X-ray Findings in Congenital Pyloric Stenosis"; Dr. W. K. Gray, "A case of Renal Tumor and Its Different Diagnosis"; Dr. R. S. Cron, "A Case of Pyelo Nephritis and Hyperthyroidism Complicating Pregnancy"; Dr. T. Burbach, on "Are European Clinics Advantageous for Post-Graduate Training?"

CENTRAL WISCONSIN OPHTHALMIC

A new organization—the Central Wisconsin Ophthalmic and Oto-Laryngologic Clinic—was formed in Marshfield October 16th at a meeting of eye, ear, nose and throat specialists. Dr. William Hipke, a member of the Marshfield Clinic, was elected president. Dr. A. L. Payne, Eau Claire, was elected vice-president, and Dr. W. G. Merrill, Wisconsin Rapids, secretary-treasurer. A committee of three was appointed to draw up resolutions and by-laws. Dr. L. A. Copps was appointed on a membership committee.

The board of censors named are: Dr. L. A. Copps, Marshfield, chairman, Dr. L. M. Willard, Wausau, Dr. E. H. Brooks, Appleton.

The district takes in cities as far north as Ashland and as far south as Fond du Lac. The meetings will be held bi-annually in May and October. The officers will name the city in which meetings shall be held.

Papers on the following subjects were read:

"Slitamp Technique, an Aid to Histological Research and Ocular Diagnosis," Dr. Robert Von der Heydt; "Diagnosis of Foreign Bodies in Air Passages and Esophagus," Dr. G. W. Boot; "Some Unusual Mastoid Conditions," Dr. H. A. Andrews.

The following doctors attended the charter meeting here: A. L. Payne, Eau Claire; I. V. Grannis, Menomonie; N. S. Simons, Whitehall; Dr. Smith, La Crosse; Dr. Neumann, Sheboygan; E. L. Brooks, Appleton; A. E. Rector, Appleton; L. M. Willard, Wausau; I. M.

Addleman, Wausau; W. A. Green, Wausau; H. T. Schlegel, Wausau; W. G. Merrill, Wisconsin Rapids; Wm. Ruckle, Wisconsin Rapids; L. J. Friend, Merrill; J. Kalling, Black River Falls; G. H. Lawrence, Stevens Point; L. A. Capps, Marshfield; Wm. Hipke, Marshfield.

NEWS ITEMS AND PERSONALS

Dr. Jerome R. Head, Dr. Robert Burns and Dr. V. Hyslop have been appointed resident physicians at the new Wisconsin General Hospital at Madison, according to announcement made by Dr. R. C. Buerki, business manager. Dr. Head is a graduate of the University of Wisconsin, Harvard Medical School and Rush College. He has recently returned to Madison from Boston, where he did interne work. Dr. Burns has been a member of the firm of Fox, Purcell and Burns. Dr. Hyslop has been an interne at St. Mary's Hospital.

Burglars, thought to have been in search of narcotics, ransacked the office of Drs. Louis F. and William M. Jermain, Milwaukee, on October 1st. They obtained nothing. A liquor prescription book with seventy-five blanks, laying on a desk, was untouched.

Dr. Ferdinand R. Krembs has recently opened an office in Stevens Point. Dr. Krembs attended Stevens Point Normal School, University of Wisconsin and the University of Illinois College of Medicine. He served one year's internship at St. Joseph's Hospital, Chicago.

Green Bay physicians' offices which have been closed Saturday afternoons according to a resolution adopted early last summer, will be open Saturday afternoons until next summer, Dr. F. J. Gosin, secretary of the Brown-Kewaunee County Medical Society has announced.

Dr. C. F. N. Schram of Beloit attended the National Safety Congress which met in Louisville, Ky., September 28th to October 4th. Dr. Schram, chairman of the Health Service Section, delivered an address on "Industrial Health as a Purchasable Commodity."

A federal narcotic agent has been investigating the theft of a quantity of morphine from the office of Dr. F. E. Tryon, city health officer of Baraboo. Similar robberies have occurred in other sections of the state.

Dr. F. B. Taylor, of Madison, has been promoted to a captaincy in the medical section of the officers' reserve corps. He had been a lieutenant.

At a meeting of The Round Table Club of Fond du Lac on October 2nd, Dr. Henry C. Werner of Fond du Lac, gave an interesting address.

Dr. John A. Witherspoon of Nashville, Tenn., former president of the American Medical Association, spoke October 2nd before the Exchange Club at the Athletic Club, Milwaukee.

Anti-toxins for the prevention of scarlet fever will be on the market within a few months, according to Dr. L. M. Field, Beloit. The preparations which will be sold will make the person immune from the disease for

life, Dr. Field believes. The toxins are the outgrowth of the test discovered by Dr. Geo. F. Dick, Chicago, and work similarly to the toxins evolved by the Schick test and used for the immunization of well persons to diphtheria.

A spirited discussion arose at the seventh biennial convention of health officers held at Madison September 26th, on the procedure in cases where physicians do not agree upon diagnosis of scarlet fever. Sentiment was divided whether the patient should be placed under strict quarantine until it has been proved that the case is or is not one of scarlet fever. Supporters of the quarantine contended that the public should be protected at all costs, and that inconvenience to the quarantined home counts for little when public protection is in the balance.

"The Need and Training of Medical Social Workers," was the subject of Dr. E. V. Brumbaugh of Madison when he addressed the Michigan Anti-Tuberculosis Association at Ann Arbor. Dr. Brumbaugh also attended the convention of the American Public Health Association at Detroit.

Dr. B. H. Hager has been appointed by the university board of regents as associate professor of surgery at the Wisconsin General Hospital. Dr. Hager, whose specialty is surgery of the kidneys, is a graduate of the University of Chicago and of Rush Medical School. He served as an assistant surgeon in the United States Navy during the war and between 1919 and 1922 was director of the military hospital in San Domingo. He is now with the Mayo Clinic, Rochester, Minn.

The city council of Stoughton is considering the purchase of the private hospital owned by Dr. Michael Iversen of Stoughton. Mr. Andrew Nelson has offered to give \$10,000 toward the cost of the hospital, which is \$13,500.

Dr. Archibald MacLaren, a well-known surgeon in St. Paul, died at his home in St. Paul on October 12th. Dr. MacLaren was especially well-known in Ellsworth. He was a member of the staff at St. Luke's Hospital, of the American College of Surgeons, of the American Medical Association, and associate attending surgeon at the University Hospital and professor of surgery at the University of Minnesota.

The Mothercraft classes at Milwaukee were addressed by Dr. Edward L. Schreiber on the importance of parental care.

Dr. Julius F. Mauermann of Monroe has been appointed assistant surgeon with the rank of major in the uniformed section of the Odd Fellows at their annual meeting held at Sparta, October 13th to 16th. Dr. Mauermann, who was grand sentinel, was also promoted to the office of grand marshal.

Dr. George Gibbs, head of the Associated Doctors, Grand Avenue, Milwaukee, was fined \$250 by Judge Page in the district court, October 18th, and his license to practice medicine in the state ordered revoked. Dr.

Gibbs was charged with having performed an illegal operation on complaint of Mildred Sedo, 29, of 457 Jackson Street, Milwaukee.

In addition to his uptown office in the Beaver Building Dr. C. O. Vingom of Madison has opened an east side branch in the new Schenk Building. Dr. Vingom was formerly associated with the Jackson Clinic and the local Methodist hospital.

Dr. U. S. Schlucter was elected president of the Milwaukee Physicians' Association at the annual meeting held in Milwaukee October 9th. Dr. John Stefanez was chosen vice-president and Dr. Arthur C. Nugent secretary-treasurer.

Dr. G. J. Egan of the Egan Clinic, La Crosse, has announced the association of Drs. Egan, McLoone and Bigler. Dr. J. E. McLoone is a graduate of Chicago University and Rush Medical College. Dr. J. A. Bigler is a graduate of the University of Wisconsin and of the Rush Medical College. Both Drs. McLoone and Bigler have been practicing in Chicago. Offices of the clinic will remain in the Security Bank Building, La Crosse.

On Thursday, October 16th, Dr. L. H. Prince of the Waukesha Springs Sanatorium spoke on the subject of child welfare before the Woman's Club at Pewaukee.

Dr. E. R. Boyer, who has been practicing medicine for several years in Rhinelander, will leave in November for Los Angeles, Cal., where he will make his home and continue his profession.

Dr. A. A. Dye of De-Funiak Springs, Florida, was a recent visitor at Madison. He was a resident of Madison until three years ago.

Twenty surgeons from various parts of Wisconsin attended the clinic at Oshkosh conducted by the Wisconsin Surgical Association. At St. Mary's Hospital the clinics were conducted by Drs. F. Gregory Connell and C. J. Combs. At Mercy Hospital the clinics were conducted by Dr. Frank Broekway on lungs, Dr. J. M. Schneider on kidneys, Dr. Neil Andrews on heart, and Drs. Connell and Combs.

Dr. Sverre Quisling, who has been in the East for the past two years, will return to Madison to practice medicine. Dr. Quisling, whose father formerly was a physician here, is a graduate of the University of Wisconsin and of the Rush Medical School, Chicago. He served as interne at a St. Louis hospital, and then took up specialty work at the University of Pennsylvania Graduate Medical School.

Offices of Dr. George Smieding, Racine, were broken into October 10th, and a book containing 90 liquor prescriptions was stolen.

A citizens committee of Stoughton has purchased the hospital owned by Dr. M. Iversen. The committee consists of Rev. M. H. Hegge, pastor of the First Lutheran Church; Dr. Victor Falk, Dr. Toay, J. H. Holtan, S. M. Halverson and Mrs. E. K. Loverud. The building acquired is estimated to be worth about \$60,000. The

common council donated \$5,000 towards the hospital with \$3,000 to be paid a year hence.

Dr. Ralph Grigsby, for three years a member of the Mayo Clinic at Rochester, and for the past year with the Kenosha Clinic, has opened an office at Ashland, and will practice medicine there.

Dr. F. E. Turgasen, a member of the Marshfield Clinic staff, will resign his position about December 1st to accept a teaching position in the medical school of the University of Illinois at Chicago.

H. S. Comings, surgeon general, U. S. Public Health Service, has sent a letter to all state health officers urging activity in vaccination. The letter states that during the first six months of 1924 two hundred human lives have been lost in the United States through small-pox.

MARRIAGES

Dr. R. M. Stark, Milwaukee, to Miss Norma Pohley of Menasha on September 24th. They will make their home at Milwaukee.

DEATHS

Dr. L. A. Potter, South Superior, died on September 28th. Dr. Potter was appointed to the school board in 1903 and served since then with the exception of a few years. He was graduated from the Detroit Medical College in 1881.

Dr. Potter was a member of the Douglas County Medical Society, the State Medical Society of Wisconsin, and of the American Medical Association.

Dr. Charles W. Pfeifer, 66, postmaster of Sheboygan Falls and for thirty-one years a practicing physician in Sheboygan County died of intestinal trouble at Sheboygan Falls, October 3rd.

Dr. Pfeifer was born at West Bend, June 29th, 1858. He was educated at the Rush Medical College, Chicago. Two years ago he was appointed postmaster at Sheboygan Falls, a position he held up to the time of his death. Dr. Pfeifer was a member of the Sheboygan County Medical Society, the State Medical Society of Wisconsin, and of the American Medical Association.

Dr. Eugene Herbert Townsend, Sr., of New Lisbon, died at St. Francis Hospital, La Crosse, October 2nd. He was born at Saco, Maine, October 23rd, 1851, and was educated at the University of Vermont Medical School, graduating in June, 1876. He practiced medicine for a time in Vermont, going to New Lisbon in May, 1879.

Dr. Townsend was one of the pioneer doctors of Wisconsin. He was president of the Juneau County Medical Society, a member of the State Medical Society, and of the American Medical Association. He was local surgeon of the Milwaukee railroad at New Lisbon and a prominent Mason.

Dr. Frank E. Brown, 64, died October 10th at his home in Milwaukee, where he had practiced medicine for thirty-five years. He was born at Cedar Falls, Ia., and was graduated from Hahnemann College, Chicago.

Dr. Brown was treasurer of the Wisconsin Institute of Homeopathy, a member of the Milwaukee County Medical Society, the State Medical Society of Wisconsin, American Medical Association, American Association of Medical Research and the American Institute of Homeopathy.

SOCIETY RECORDS

NEW MEMBERS

Hill, B. S., Madison.
 Brown, D. A., Madison.
 Gessner, F. C., Oconomowoc.
 Lowe, R. C., 450 Main St., Stevens Point.
 Krembs, F. R., 440½ Main St., Stevens Point.

CHANGES IN ADDRESS

Combacker, L. C., Osceola—225 7th Ave., S. E., Minneapolis, Minn.
 Stuessy, S. G., Park Falls—1324 Randall St., Madison.
 Smith, H. F., 122 W. Washington Ave., Madison—2327 Lisbon Ave., Milwaukee.
 Frew, J. W., 732 Franklin St., Milwaukee—64 Farwell Ave., Milwaukee.
 Pratt, Maud, Shell Lake—State Hosp., Independence, Iowa.
 Graves, J. P., New Holstein—170 Main St., Kenosha.
 Fogo, H. M., Evansville—Augustana Hosp., Chicago, Illinois.
 Anderson, N. P., 221 South 15th St., La Crosse—2027 Cass Ave., La Crosse.
 McGuinness, H. S., Medford—Tomahawk.
 Johnson, A. W., 227 13th St., Milwaukee—R. R. 1, Hales Corners.

CORRESPONDENCE

The Editorial Board,
 Wisconsin Medical Journal,
 Milwaukee, Wisconsin.

Dear Members of the Board:

In the October Bulletin of the American Medical Association I note that again the Bulletin reprints an editorial from our Journal. This time it is the editorial "We Do Not Concede" from the June issue.

For some several months I have noticed that practically every issue of the Bulletin has included some worthwhile item or editorial from our own Wisconsin Medical Journal. When we consider the limited number of such items that are reprinted in this national publication, I feel we all have reason to be proud of the progress of the Wisconsin Medical Journal.

Most sincerely yours,

A. A. PLEYTE.

AN OVERSIGHT WE REGRET

Mr. J. G. Crownhart,
 Managing Editor,
 Wisconsin Medical Journal,
 Milwaukee, Wisconsin.

Dear Mr. Crownhart:

In the September issue of our Journal I was indeed

glad to see that members of the Brown-Kewaunee County Medical Society had been given the editorial comment they so richly deserved as hosts for our best meeting. In this same editorial, however, I was disappointed when I noticed that, probably through oversight, no mention had been made of the splendid entertainment afforded our wives.

As a member who ventured to bring his wife with him, I feel it only my duty to call this oversight to your attention for I have been told many times of the most unusual entertainment and hospitality enjoyed by the visiting ladies.

Sincerely yours,

A MEMBER WHO ATTENDED.

GRIEF OF A SECRETARY.

BY ONE.

If the secretary writes a letter, it is too long.
 If he sends a postal, it is too short.
 If he issues a pamphlet, he's a spendthrift.
 If he attends a committee meeting, he is butting in.
 If he stays away, he is a shirker.
 If the attendance at a luncheon is slim, he should have called the members up.
 If he does call them, he is a pest.
 If he duns a member for his dues, he is insulting.
 If he does not collect, he is lazy.
 If a meeting is a howling success the Program Committee is praised.
 If it's a failure the secretary is to blame.
 If he asks for advice he is incompetent, and if he does not, he is bullheaded.

Ashes to ashes,

Dust to dust,

If the others won't do it

The secretary must.

—From Bldgs. and Bldg. Management.

TRI-STATE SOCIETY ELECTS

The next annual meeting of the Tri-State Medical Society will be held the last full week of October, 1925, at St. Paul, Minnesota. Officers elected for the ensuing year are as follows: Presidents of clinics, Dr. Will Mayo, and Dr. Charles Mayo of Rochester; President, Dr. Addison C. Page, Des Moines; President elect, Dr. J. V. Lyman, Eau Claire, Wisconsin; Managing director, Dr. Wm. B. Peck, Freeport; Secretary and director of exhibits, Dr. Edwin Henes, Milwaukee; Treasurer and assistant managing director, Dr. J. Sheldon Clark, Freeport; Director of Foundation, Dr. Henry Langworthy, Dubuque, Iowa.

The society held a most successful meeting at Milwaukee October 27 to 31.

WILL TEST ETHYL GAS

Dr. Ira F. Thompson, acting health commissioner of Milwaukee has ordered tests made to determine if ethyl gas is safe for ordinary use. Reports from the east that several cities have prohibited its use caused the commissioner to order a series of tests.

The Bureau of Legal Medicine and Legislation of the American Medical Association*

BY W. C. WOODWARD, M.D., LL.M.
EXECUTIVE SECRETARY

As your President has just told you, in 1922, the House of Delegates of the American Medical Association provided for the organization of an agency of some sort to look after legislative matters on behalf of the Association. That agency was to be created by the Board of Trustees and to operate under its direction. The Board organized, therefore, the bureau we are about to discuss.

The function of the Bureau of Legal Medicine and Legislation is to carry out such orders as it receives from the House of Delegates and, in the interim between meetings of the House, from the Board of Trustees. The Board of Trustees and the House of Delegates function in the fields of both federal and state legislation. In the federal field, they deal directly with Congress and various federal boards and officers, but in so far as any legislative activity relates exclusively to the affairs of any State, the House of Delegates and the Board of Trustees endeavor simply to assist the state in formulating and in carrying out its own policies; they aim, not to direct any such policy, but to stand behind the state and to help wherever they can.

But no state association should ever lose sight of the fact that in every matter of federal legislation, the House of Delegates and the Board of Trustees are dependent for results on state agencies. On behalf of the house or the board, the Bureau of Legal Medicine and Legislation can submit to Congress or to any board or officer of the federal government a request or an argument to promote certain policies. The request or the argument will receive attentive consideration of course, and the bureau may be able even to attain its objects. But when it comes to bringing pressure to bear to overcome a given objection, we must come back to the state association; just as the state association has to go back to the county society, and the county society to go back to the individual members, to obtain results. We have to go back

to the state association because the American Medical Association does not vote, and because its members exercise the franchise only as voters in their respective states. I am eager that this situation be constantly borne in mind, because calls may go out to our state associations to back up our request at Washington; and if our state associations are to respond effectively to such calls they must be organized with that end in view. They must be ready to appeal promptly and effectively, not merely to their senators and representatives in their state legislature, but also to their senators and representatives in Congress. So much, then, for our national work.

When it comes to state work, the bureau endeavors to help the state association in its efforts to formulate and execute its own plans, endeavoring so far as may be possible, however, to promote uniformity and effectiveness of legislation. The standard lye bill is one type of legislation; that is, legislation formulated primarily under the direction of the House of Delegates. A good deal of the legislation that comes before the Bureau, however, is legislation formulated within the state and concerning which the state association desires criticism and advice. It may be legislation formulated under the direction of the state association, or it may be legislation that the State association is called on to oppose. The important thing to remember, however, with respect to state legislation is that it does not originate in the brain of the executive Secretary of the Bureau of Legal Medicine and Legislation. He may formulate model bills, as with respect to lye, which the state association may either accept or reject. He may even undertake on the request of the state association to draft a bill to suit its individual needs. But his chief work in the state field is advising with respect to bills already formulated in the state. And in order that he may be able to perform that function properly, there should flow into the Bureau of Legal Medicine and Legislation at all times information from the various states concerning their legislative problems and activities. The bureau should not be left to rely on its own

*Presented at the 78th Annual Meeting of the State Medical Society of Wisconsin at Green Bay, August 21, 1924.

unaided observations and experiences, but the observations and experiences of every state and county organization, and within appropriate limits, to every member of the Association.

An example of the advantage of recording with the bureau state legislative experiences as just occurred with respect to the state of Washington. That state is now confronted with a bill licensing naturopaths under the initiative. Now it is one thing to fight legislation in a legislature, but it is quite another thing to fight legislation that is being promoted under the initiative. Very few state associations have had any experience in fighting legislation in the latter way. One state, however, Colorado, has had such experience. It fought a good fight and, in 1922, defeated an anti-vivisection bill that was before the people under the initiative. After the campaign was over, a member of the state committee was good enough to file with the Bureau of Legal Medicine, an admirable report of the procedure that had been followed, from beginning to end. The result was that when Washington saw trouble ahead, and wrote for advice, I was able to send a report, based on the experience of another state society; and that report I am sure will be of material aid in conducting the Washington campaign.

Another incident that shows the advantage of centralizing information in the bureau has just occurred. Alabama has introduced into its code a plan for the enforcement of its medical practice act that is, so far as I know, entirely novel. In some states the injunction has been invoked to prevent illegal practice. It is of no particular benefit to a community to impose a small fine on a chiropractor or quack of any other kind, and then to turn him loose on the public; but if you can procure an injunction commanding him to desist from practice it is a comparatively simple matter to see that he does so, and thus protect the public. Legislation authorizing the issue of injunctions has been enacted in several states, and was looked upon as practically the last word in the enforcement in medical practice acts. Such legislation was proposed in Alabama, but the code committee objected. It did not care to write legislation of that kind into the Alabama law. But, it seems to me, it did something that promises even better; it did something that promises even better; it authorized procedure against supposedly unlawful practitioners by what are known as writs of *quo war-*

ranto. Some of you may know that it is by a *quo warranto* proceeding that the government undertakes to determine the right of one to hold office who assumes to exercise the functions of that office, and whose right is disputed. The possibly usurping official is called on to show by what right he has intruded on the office, and the burden of proof is placed on him. The Alabama code now provides that a *quo warranto* proceeding may be instituted against a person who is believed to be practicing medicine without lawful warrant, so as to compel him to justify his action. The newly conferred authority for such proceedings in Alabama does not appear in the medical practice act of the state, but is tucked away in an obscure corner of the code, and in the ordinary course of affairs, it would have taken a long time to bring it to the attention of our several state associations and licensing boards. Through the Bureau of Legal Medicine and Legislation, however, a knowledge of this principle in the enforcement of medical practice acts becomes immediately available to any state association or board of medical examiners that avails itself of the bureau's resources.

But the bureau can not undertake to limit its studies solely to law. Facts are necessary to support arguments in favor of a passage of a given bill, or against it. This may well be illustrated by the present situation with respect to legislation to regulate the sale of cosmetics, hairdyes, and furs. The House of Delegates at its session in June last adopted a resolution recommending legislation to require the names of dangerous ingredients to be printed on the labels affixed to packages of cosmetics and hairdyes, and forbidding the use of a certain dye, paraphenyldiamin, in the dyeing of furs. The task of drafting and promoting such legislation brought new problems to the bureau. Certainly the bureau can not be expected to know everything, and certainly it knew but little of the manufacture of cosmetics and hairdyes, and even less concerning the dyeing of furs. The bureau had never had occasion to study even the laws regulating the sale of cosmetics and hairdyes and of the dyeing of furs, if there be any such laws. So this simple resolution of the House of Delegates, that took less than five minutes to pass, will take much prolonged and wearisome study on the part of the bureau before the first law on the subject is on the statute books.

Incidentally, many legal problems come before

the bureau that do not relate to proposed legislation. You in Wisconsin are fortunate having a medical association so well organized and managed that it can solve your legal problems for you. Many of our state associations are not organized in that way. So from all over the country come inquiries about malpractice suits, the use of narcotics, privileged communications, and many other matters, all of which have to be inquired into and passed on. Only a relatively small part of those inquiries are ever published in the "Queries and Minor Notes" in *The Journal*. Only such as may be of general import and can be briefly answered are so published. This work, however, is growing, and if the bureau does its duty as it ought to be done, it will probably continue to grow.

It is of vital importance that the bureau be kept in intimate touch with the activities of our several state associations and that each such association be kept in touch with all others, and certainly this can not be done by correspondence alone. There is now under consideration the advisability of calling

conferences from time to time to promote this intimacy of contact and understanding. During the recent session of the Association, in Chicago, a conference on legislation was held but, to be frank, it did not get us very far; it was merely an unorganized and more or less preliminary conference. It did, however, appoint a committee to consider the best method of assembling such conferences in the future. What action will be taken, I am of course, unable to say.

Just now the bureau consists of the Executive Secretary and two clerks. If it continues to grow, and if it is to be operated properly, it will have to be enlarged. These are matters that will be taken care of in the future but that should be constantly on your minds. The essential thing, however, is for you to support the bureau and to remember that it is organized to serve you. If you call on it for service, and if you criticize it when you think it needs criticizing, I am sure that sooner or later it will prove a helpful factor in the life of the Association.

The Small Hospital—A Discussion of its Place and Problems of the Present Time

BY R. L. MACCORNACK, M.D.,

WHITEHALL

Editor's Note—This paper was read before the Seventh Councilor District Meeting at La Crosse, October, 1924. The writer has been in a large measure responsible for the success of the Whitehall Community Hospital which is filling a very real need in the community; one of but nine hundred population.

The need of having a hospital anywhere is to render service to the community in which it is located and the value of the hospital to the community depends upon the character of service rendered. A hospital, large or small, should exist upon its merits. Any other consideration is impossible. The standard of care to patients should, therefore, gradually improve and keep step with the progress of medicine.

A certain percentage of the hospital work is service to emergency cases whether medical, surgical, or in the field of pathological obstetrics. Here a small Hospital in the immediate community is well nigh indispensable to the best interests of the patient. The chronic cases have more freedom



WHITEHALL COMMUNITY HOSPITAL.

of choice as to what hospital they would enter for treatment. The smaller hospitals with efficient service and kindly care will attract their fair share of the more chronically ill. So much for the place of a small hospital in any community.

The problems of a small hospital are much the same as those of a larger institution, that is, of financing the hospital and giving service to the sick.

THE NEED OF COOPERATION

To maintain a well ordered hospital requires tireless effort on the part of all concerned. One of the greatest problems before any hospital is to get a hearty cooperation: first, within the hospital; second, with the visiting physicians, and third, with the community at large.

1. The board of directors should have an active and sustained interest in the welfare of the institution. This will insure regular attendance at the board meetings. The business side is important; bills must be met promptly. While the purchasing department must adhere to strict economy the local dealers must not be ignored. The staff of a small hospital is not large and with a proper understanding as to the division of work there should be no friction among its members. A training school for nurses is a great value and should be organized, registered, and maintained if at all possible. It makes for loyalty. It makes the hospital a teaching institution. The staff all teach and improve every opportunity to assist the training school.

2. A small hospital depends upon the good will of neighboring doctors for its support. Medical ethics must be studiously applied. Prompt service, good results, and a spirit of good fellowship all work for harmony.

3. A hospital will be supported if it has the confidence of the public. A spirit of understanding and cooperation should prevail. Tell the community of your problems and they will help in their solution.

HOSPITAL BUILDING

The size of the hospital building depends primarily upon its probable clientele. It is well to be conservative at first and then enlarge the building as the demand for more space becomes evident. Overcrowding must be avoided. Single rooms are best for post operatives need the seclusion of private rooms and special nursing. During the second week of convalescence a ward bed may be permissible. The construction of a hospital is an art. The defects become apparent after the building is completed. I would advise that the building committee make a careful study of many up to date hospitals before construction work is started, even for additions. Each phase of the building is important from the operating room to the coal bunker.

HOSPITAL FINANCES

I am one of those who believe that the average hospital, large or small, should be so conducted as to pay its own way. In the large cities where there are a great number of extremely poor people charitable hospitals are a necessity. But ordinarily patients should be taught to pay their hospital bills in the same way that other bills must be met. A hospital is not run for profit. It gives service for cost, which is all the more reason that a hospital bill should be honored. Charity is splendid if well placed, but it is detrimental to the individual in a great many instances. It is also advisable that hospital bills be paid at the time or before the patient leaves the institution. The charge for rooms and hospital service should be made as reasonable as possible. A reasonable fee and prompt payment both make for permanency of the institution.

It is impossible for a hospital to accumulate funds for new buildings projects, such as additions, the financing of which is a matter for each hospital organization to decide for itself.

HOSPITAL SERVICE

The work carried on need not be limited provided the means for correct diagnosis are adequate. The standard methods for diagnosis should be available. A reliable X-ray department is absolutely essential. Gastric analysis can be readily done; urine, stool, and blood examinations are simple tests. Basal metabolic determinations are becoming simplified. Gross and microscopic examinations of tissue should be in the hands of a pathologist whose laboratory is near the operating room. Wassermann tests can be made by a State Laboratory. The taking of a worthwhile history may be done and should be done in every hospital, likewise a thorough physical examination. At this point let me emphasize that the small hospital is no place for experimentation.

After the history has been taken, the physical examination made and the diagnosis arrived at, I frankly ask, "What then?" It is our duty and pleasure as physicians and surgeons to do all that is within our power to permanently improve the patient's health. Treat the patient not as case number so and so, but as an individual with the touch of kindness and genuine interest. And if this is done neither chiropractic or other "tic" can delude the sick.

(Continued on Page 336)

THE JOURNAL BOOK SHELF

Diabetes. By Philip Horowitz, M. D., 219 pages, cloth. Paul B. Hoeber, Inc., New York, 1924. 34 illustrations.

Dislocations and Joint Fractures. By Frederic J. Cotton, A.M., M.D., F.A.C.S., (Second Edition, Reset.) W. B. Saunders Co., 1924.

To Lectures on Gastric and Duodenal Ulcer. A Record of Ten Years' Experience. By Sir Berkley Moynihan Leeds, John Wright and Sons, Ltd., Bristol. Wm. Wood & Co., New York.

The Medical Clinics of North America. (Issued serially, one number every other month.) Volume XIII, Number 1, July, 1924. By Internists of New York City. Octavo of 426 pages with 106 illustrations. Per Clinic year (July, 1924, to May, 1925). Paper, \$12.00 net. Cloth, \$16.00 net. Philadelphia and London. W. B. Saunders Company.

International Clinics. Volume II. Thirty-fourth Series, 1924. J. B. Lippencott Company, Philadelphia and London.

Eat Your Way to Health. By Robert Hugh Rose, A.B., M.D., 12 mo. cloth. 246 pages, \$2.00 net. Funk & Wagnalls Company, Publishers, New York.

Manual of Gynecology and Pelvic Surgery for Students and Practitioners. By Roland S. Sheel. Second Edition. Published by P. Blakiston's Son and Company, 1012 Walnut Street, Philadelphia, Pennsylvania.

Mind and Medicine. By Thomas W. Salmon, M.D., Professor of Psychiatry in Columbia University. From the Columbia University Press, New York, 1924.

Modern Methods of Treatment. By Logan Clendenning, M.D., Assistant Professor of Medicine and Lecturer on Therapeutics, Medical Department, University of Kansas. Illustrated, 692 pages. Cloth, \$9.00. The C. V. Mosby Company, St. Louis, 1924.

Food for Health's Sake—What to Eat. By Lucy H. Gillett, A.M., Superintendent of the Nutrition Bureau of the New York Association for Improving the Condition of the Poor.

The Quest for Health—Where It Is and Who Can Help Secure It. By James A. Lobey, Administrative Secretary, National Health Council; Associate Editor of the American Journal of Public Health.

The Young Child's Health. By Henry L. K. Shaw, M.D., Clinical Professor of Diseases of Children, Albany Medical College, Formerly President American Child Hygiene Association.

The Human Machine—How Your Body Functions. By William H. Howell, Ph.D., M.D., L.L.D., Sc.D., School of Hygiene and Public Health, Johns Hopkins University.

Love and Marriage, Normal Sex Relations. By Thomas Walter Galloway, Ph.D., Litt.D., Associate Director Department of Educational Measures, American Social Hygiene Association, New York.

Taking Care of Your Heart. By T. Stewart Hart, A.M., M.D., President of the Association for the prevention and Relief of Heart Diseases.

The Expectant Mother, Care of Her Health. By Robert L. De Normandie, M.D., F.A.L.S., Instructor in Obstetrics, Harvard Medical School.

The Venereal Diseases. Their Medical, Nursing and Community Aspects. By William Freeman Snow, M.D., General Director American Social Hygiene Association.

Tuberculosis—Nature, Treatment and Prevention. By Linsly R. Williams, M.D., Managing Director, National Tuberculosis Association.

Maternity Nursing in a Nutshell. By E. H. Wickham, R.N. Published by F. A. Davis Co., Philadelphia, Pa., 1924.

General Medicine, Practical Medicine Series. The Year Book Publishers, Chicago, Ill.

Life Insurance Examination. Edited by Frank W. Foxworthy, P.F.B., M.D., Indianapolis. Published by the C. V. Mosby Company, 1924, cloth; 738 pages, 156 illustrations. Price, \$9.00.

Hospital Organization and Operation. By Frank E. Chapman.

Diseases of the Chest and the Principles of Physical Diagnosis. By G. W. Norris and H. R. M. Landis. Third Edition. W. B. Saunders Co., Philadelphia, 1924.

The Internal Secretions. Weil-Gutman.

The Medical Clinics of North America. (Issued serially, one number every other month.) Volume VII, Number VI, May, 1924. By Internists of McGill University, Montreal, Canada. Octavo of 306 pages with 49 illustrations and Complete Index to Volume VII. Per Clinic year (July, 1923, to May, 1924): Paper, \$12.00 net. Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

First Steps in Organizing a Hospital. By Joseph Weber, M.A. The MacMillan Company, New York, 1924.

Operative Surgery. Covering the Operative Technic involved in the operation of general and special surgery. By Warren Stone Bickham, M.D., F.A.C.S. Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York. Former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5400 pages with 6378 illustrations, mostly original and separate Desk Index Volume. Volume 4 containing 842 pages with 722 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by Subscription only. Index Volume free.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

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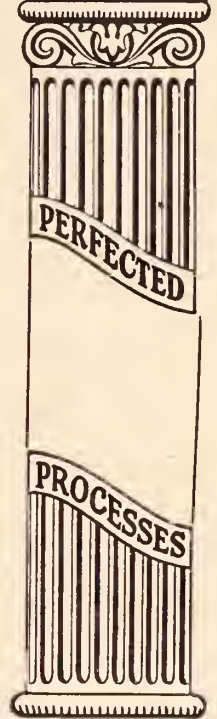
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"East Water at Mason"

OH DOCTOR, DOCTOR!

By H. A. J.

It all started when I invited the Doctor to have lunch with me.

"Doctor," said I, "How about lunch with me today at the Club?"

"Like to but today's Rotary Day, you know."

"Himm," said I, "How about tonight?"

"Hmmm," sezze, "I can't make that. Two calls to make and then the hospital staff meeting."

"Well, tomorrow noon?"

"Let's see. Yess-ss. That is, no, 'fraid not. Tri-State Committee meeting tomorrow noon."

Friday evening?—another staff meeting. I jumped to Tuesday. No, sorry, that was Academy night.

We finally decided it was a draw. He will call me sometime and then we will have that lunch.

Thinking the Doctor didn't like me as much as I thought he did, I made up my mind to have a go at another medical friend just as a sort of a test. Same result. Said he really wanted to go to the county society meeting and as for the rest—well he thought he ought to be among those there.

As I sit here smoking my jimmy pipe and pounding the keys I am giving vent to some thoughts that occurred to me at the time of the above conversations and have persisted in my mind since. My first reaction was that the Doctors must have a corner on society meetings but then I happened to think of the meetings we laymen have. They are not sessions—they are "conferences." These latter have become so numerous and the term so all inclusive that I expect any day to have central say "in conference" instead of "line's busy. It doesn't sound bad at that.

But speaking seriously, something my friends say I am not capable of doing, I wonder what the Doctor is going to become in the next two or three years. Looks to me as though he will have to hire an assistant to take care of the plagued practice that is always interfering with his meetings. He will unless he gets just sick enough himself so that he will stop to take an inventory and see where he is headed. And if he does that, and a few more do it, perhaps we will return to the day when a meeting a week for a married man was considered as going a fast pace.

There is a good bit more I would like to add but if you will excuse me I have to meet the wife for our Mah Jongg club—it meets tonight.

THE COMMUNITY HOSPITAL.

(Continued from Page 333)

The obstetric department must depend for its success on two things: asepsis and obstetrical judgment, or in simpler terms: cleanliness and common sense.

Medical cases should be handled by a physician well versed in psychology. When patients need special therapy let that phase of the treatment be done in a business like way, but remember that the mind has a strong influence over bodily functions. Instill confidence, correct a wrong mental attitude, and direct thinking along channels beneficial to the welfare of the patient. Neurostenics come under every doctor's care regardless of his specialty. Individual kindly interest in the patient is the physician's greatest duty and privilege.

Major surgery should be done in any hospital, large or small, only by the competent. This paper is not the place to discuss the prerequisites that go to make a surgeon. Suffice it to say, the size of the hospital is no indication of the quality of surgery in its operating room.

In conclusion I would emphasize the following: first, the value of a hospital depends upon the character of service rendered; second, a hospital should exist upon its merits; third, a small hospital in the community is of inestimable value; fourth, cooperation is the key to success, and fifth, a high standard of work may be done in the small hospital.

REAL BOARD OF HEALTH!

Strolling along the quays of New York harbor, an Irishman came across the wooden barricade which is placed around the inclosure where emigrants suspected of suffering from contagious diseases are isolated.

"Phwat's this boarding for?" he inquired of a by-stander.

"Oh," was the reply. "that's to keep out fever and things like that you know."

"Indade!" said Pat, "Oi've often heard of the Board of Health, but it's the first time Oi've seen it!"—Canadian Druggist.

MADISON NEUROLOGICAL CLINIC

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Madison, Wisconsin

The work of this Clinic is limited to neurology, psychiatry, syphilis, cardiac and endocrine disorders.

The service is both diagnostic and therapeutic.

Syphilis in all its phases, especially late manifestations and syphilis of the central nervous system, will be treated. Limited hospital facilities for this purpose are available at Madison.

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Our diagnostic service includes psychoneuroses, psychoses, conduct and behavior disorders in children.

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After careful study, a complete detailed report with conclusions and suggestions for treatment will be submitted to the physician who refers the case.

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This mixture contains 56.61 grams of carbohydrates, thus supplying material that is utilized rapidly for heat and energy. The predominating carbohydrate is MALTOSE, which has the highest point of assimilation of any of the sugars, is immediately available as fuel and may be safely given in comparatively large amounts. The daily intake of protein from the employment of this formula is 15.54 grams, an amount calculated to be sufficient to replace depleted tissues and to provide for new growth. There is present in the mixture 4.32 grams of salts for replenishing inorganic elements.

The suggested modification furnishes nutrition in keeping with the character and amount of food elements best adapted to the particular demands of infants in an extreme state of emaciation and serves well as a starting point in attempting to meet the nutritive requirements of these undernourished babies.

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THERAPEUTIC NOTES

In addition to the articles enumerated in our letter of September 27th, the following have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association:

Battle Creek Food Company—

Lacto-Dextrin.

Eli Lilly and Company—

Pituitary Extract—Lilly (Obstetrical):

Pituitary Extract—Lilly (Obstetrical), 0.5 c.c.

Pituitary Extract—Lilly (Obstetrical), 1 c.c.

Pituitary Extract—Lilly (Surgical):

Pituitary Extract—Lilly (Surgical), 1 c.c.

Medical Laboratories, Inc.—

Culture Bacillus Acidophilus—Medical Laboratories, Inc.

Merck and Company—

Barbital—Merck.

Barbital Sodium—Merck.

Carbon Tetrachloride—Merck Highest Purity "C. P."

H. K. Mulford Company—

Cargentos Ointment, 5 per cent.

Cargentos Ointment, 5 per cent.

Diphtheria Toxin-Antitoxin Mixture New Formula (Park Banzhaf's 0.1 L+ Dose)—Mulford.

Nutrivoid Diabetic Flour Company—

Nutrivoid Flour.

Parke, Davis and Company—

Antidysenteric Serum—P. D. and Co., 20 c.c. Syringe.

Powers-Weightman-Rosengarten Company—

Quinine Ethyl Carbonate—P. W. R.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

Meroxyl. A mixture containing approximately 50 per cent of the sodium salt of 2, 4-dihydroxy-3, 5-dihydroxymercuribenzophenone-2-sulphonic acid, with foreign matter containing ammonium 2, 4-dihydroxybenzophenone-2-sulphonate, sodium acetate and water. Meroxyl is a local antiseptic and germicide proposed for use in superficial infections. It is used for wet dressings of wounds, and also for irrigation of wounds and infected bladders. Meroxyl is marketed in the form of tablets containing 0.15 Gm. Hynson, Westcott and Dunning, Baltimore. (Journal A. M. A., Oct. 4, 1924, p. 1079).

Metaphen. Bisacetoxymercuri-4-nitro-2-cresol. It contains from 58 to 60 per cent of mercury in organic combination. Metaphen is a germicide, more powerful than mercuric chloride and certain organic mercury compounds when tested on cultures of *Staphylococcus aureus* and *Bacillus typhosus*. It is stated to be relatively nonirritating when applied to mucous membranes or the skin, and to be without deleterious action on metallic instruments or rubber. Metaphen is proposed for use in the treatment of gonorrhoea, infections of the eye, for skin sterilization and for sterilization of instruments and rubber. It is insoluble in water and for use, solutions must be prepared with the aid of sodium hydroxide. It is supplied in the form of metaphen

solution 1:5,000. Abbott Laboratories, Chicago (Journal A. M. A., Oct. 11, 1924, p. 1167).

Sterile Ampules Mercury Benzoate 2 per cent, 1 c.c. Mercuric benzoate—N. N. R. (New and Nonofficial Remedies, 1924, p. 200. 0.02 Gm. (1/3 grain), in a solution of sodium chloride 2.5 per cent, 1 c.c. Swan-Myers Co., Indianapolis.

Sterile Ampules Mercury Succinimide, 0.01 Gm. (1/6 grain). Mercuric succinimide—N. N. R. (New and Non-official Remedies, 1924, p. 204), 0.01 Gm., in water 1 c.c. Swan-Myers Co., Indianapolis.

Sterile Ampules Mercury Salicylate, 0.065 Gm. (1 grain). Mercuric salicylate—U. S. P., 0.065 Gm.; benzocaine—N. N. R., 0.02 Gm., in neutral vegetable oil, 1 c.c. Swan-Myers Co., Indianapolis.

Sterile Ampules Mercury Salicylate, 0.097 Gm. (1 1/2 grain). Mercuric salicylate—U. S. P., 0.097 Gm.; benzocaine—N. N. R., 0.02., in neutral vegetable oil, 1 c.c. Swan-Myers Co., Indianapolis.

Sterile Ampules Mercury Binioidide, 0.01 Gm. (1/6 grain) in oil. Red Mercuric iodide—U. S. P., 0.01 Gm. suspended in pure cottonseed oil, 1 c.c. Swan-Myers Co., Indianapolis.

Concentrated Tetanus Antitoxin (Globulin). Tetanus antitoxin, concentrated (New and Nonofficial Remedies, 1924, p. 297), marketed in packages of one syringe containing 10,000 units; in packages of one syringe containing 20,000 units; in packages of one cylinder containing 5,000 units for intraspinal use; in packages of one cylinder containing 10,000 units with intravenous outfit. Lederle Antitoxin Laboratories, New York.

Antipneumococcus Serum, Type 1. Antipneumococcus serum (New and Nonofficial Remedies, 1924, p. 304), marketed in packages of one cylinder containing 100 c.c. with intravenous outfit; in packages of one vial containing 100 c.c. Lederle Antitoxin Laboratories, New York.

Antistreptococcic Serum, Polyvalent. Antistreptococcic serum (New and Nonofficial Remedies, 1924, p. 305), marketed in packages of one syringe containing 20 c.c.; in packages of three 10 c.c. vials; in packages of one vial containing 50 c.c.; in packages of one vial containing 100 c.c.; in packages of one cylinder containing 100 c.c. with intravenous outfit. Lederle Antitoxin Laboratories, New York.

Acne Vaccine. Acne vaccine (New and Nonofficial Remedies, 1924, p. 316), marketed in packages of four vials containing respectively 5, 10, 20 and 40 million killed acne bacilli; in packages of one 5 c.c. vial containing 40 million killed acne bacilli per c.c.; in packages of one 10 c.c. vial containing 40 million killed acne bacilli per c.c. Lederle Antitoxin Laboratories, New York. (Journal A. M. A., Oct. 18, 1924, p. 1245).

Staphylococcus Vaccine Polyvalent—Lederle. Staphylococcus Vaccine (New and Nonofficial Remedies, 1924, p. 324), marketed in packages of one 5 c.c. vial containing 800 million killed *Staphylococcus albus*, 800 million killed *Staphylococcus aureus* and 400 million killed *Staphylococcus citreus* per c.c.; in packages of one 10 c.c. vial, containing 800 million killed *Staphylococcus albus*, 800 million killed *Staphylococcus aureus*

DIPHTHERIA TOXIN-ANTITOXIN SQUIBB

SUSCEPTIBILITY to diphtheria is at its maximum in infants of about one year of age. Beginning at this time, immunity slowly but steadily develops, until in adult life, immunity is the rule in the majority.

AS AGE and immunity increase, the amount of diphtheria toxin required to produce active immunity against diphtheria becomes less and less. As the quantity of toxin required is lessened, the possibility of protein reaction occurring, though slight, is increased.

DR. PARK and his associates of the Research Laboratory, N. Y. C. Department of Health, have demonstrated that a mixture containing only one-thirtieth of the amount formerly used, is absolutely effective in immunizing, regardless of age. The immunizing value is not lessened for the reason that with a reduction of the amount of toxin, the antitoxin is also reduced, leaving the proportion of free toxin unchanged. In other words, the new formula retains the immunizing value of the old, but reduces the possibility of protein reaction to a minimum.

This improved formula is now available to you under the Squibb label, which insures its reliability. It is marketed by the Squibb Biological Laboratories under the title "DIPHTHERIA TOXIN-ANTITOXIN MIXTURE SQUIBB" (New Formula).

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and 400 million killed *Staphylococcus citreus* per c.c. Lederle Antitoxin Laboratories, New York.

Pneumococcus Vaccine Polyvalent—Lederle. Pneumococcus vaccine (New and Nonofficial Remedies, 1924, p. 322), marketed in packages of one 5 c.c. vial containing 3,000 million killed pneumococci per c.c. Lederle Antitoxin Laboratories, New York.

Typhoid Vaccine (for prophylactic treatment)—Lederle. Typhoid vaccine (New and Nonofficial Remedies, 1924, p. 326), marketed in packages of 30 vials; in packages of one 5 c.c. vial containing 1,000 million killed typhoid bacilli per c.c.; in packages of one 20 c.c. vial containing 1,000 million killed typhoid bacilli per c.c. Lederle Antitoxin Laboratories, New York.

Typhoid combined vaccine prophylactic—Lederle. Typhoid vaccine (New and Nonofficial Remedies, 1924, p. 326) marketed in packages of 30 vials; in packages of one 5 c.c. vial; in packages of one 20 c.c. vial. Lederle Antitoxin Laboratories, New York. (Journal A. M. A., Oct. 25, 1924, p. 1335.)

PROPAGANDA FOR REFORM

The Standardization of Drugs Amid Changing Standards. Medical welfare is hampered in many ways by the machinations of the quack and the health impostor; likewise by the production and distribution of products that are below standard or utterly incapable of accomplishing what the unsuspecting user, be he layman or physician, may rightfully expect of them. Much of the valuable work of the Council on Pharmacy and Chemistry of the American Medical Association consists in revision—in promoting an up-to-date attitude toward well tested novelties in drugs, while preserving a justifiable conservatism toward the valuable contributions of the past. An illustration of the difficulties encountered is afforded by the recent experiences with cod liver oil. The product itself is no novelty, but some of its reputed virtues have been put on a more scientific basis in the last decade. The pharmacopoeial standards have been found insufficient. Today it is standardized on its vitamin potency—and more recently on its antirachitic properties. Such tested cod liver oils are widely advertised and have been accepted for inclusion in New and Nonofficial Remedies by the Council on Pharmacy and Chemistry. Those who believe in keeping abreast of progress should, therefore, lend their enthusiastic support to agencies, such as the Council, that labor unselfishly for them. (Journal A. M. A., Oct. 4, 1924, p. 1080.)

Pluriglandular Products of Harrower. In 1919, the Council on Pharmacy and Chemistry examined a number of the products of the firm of Henry R. Harrower, Glendale, California. It found none acceptable for New and Nonofficial Remedies. An examination of the "literature" sent out by the firm during the last year shows that its business is still largely in complex mixtures such as those reported on adversely by the Council. (Journal A. M. A., Oct. 4, 1924, p. 1098.)

The Photo-Activity of Substances Curative of Rickets. In addition to conspicuous changes in the composition of bones in rickets, disproportions occur in the concentra-

tion of calcium and phosphorus in the blood plasma. The chemical make-up of the latter is soon restored to a more normal character whenever effective antirachitic measures are instituted. Cod liver oil has this regulatory power in a striking degree. It is an extraordinary circumstance that a substance containing neither calcium nor phosphorus, should have the power to cause the calcium or the phosphorus, as the case may be, to rise nearly to the level commonly regarded as normal. Furthermore, cod liver oil not only acts as a regulator of the calcium and phosphorus metabolism, but also permits the organism to operate with greatly increased economy. No less remarkable than the action of cod liver oil, is the clearly demonstrated potency for this purpose of certain types of radiation, such as present in direct sunlight and which emanate also from the quartz mercury vapor lamp. Because of the similarity of action of cod liver oil and radiant energy, it was predicted that a connection must exist between them. This relation has now been demonstrated. It has been shown that the chemical substances curative of rickets produce a blackening of sensitive photographic plates screened by quartz. Substances noncurative of rickets do not fog the plates. These phenomena are undoubtedly due to ultraviolet radiation. Thus oxidation appears to furnish the basis for the identical curative action of many substances and of sunlight in rickets. (Journal A. M. A., Oct. 11, 1924, p. 1169.)

New Wilson Remedy Co. Recently some physicians in Ohio received letters from the New Wilson Remedy Co., giving as its address 1042 St. Clair Avenue, Cleveland, Ohio, suggesting they "become interested in getting the profits from medicines that usually go to outsiders." They were informed that it was proposed to purchase the entire formula, stock, name, etc., of the present New Wilson Remedy Co., which now sells "Wilson's Pills," formerly known as "Wilson's Pills of Life" and stated to have proven "very effective" in "Chronic Rheumatism, Lumbago, Neuralgia, Sciatica and Menstruation." "The New Wilson Remedy Company" appears to be a trade style used by one George C. McKay. McKay, it is said, is a sales agent for various concerns and his wife apparently takes care of the mail order patent medicine business. The "Company" merely has desk room at 1042 St. Clair Avenue, Cleveland. (Journal A. M. A., Oct. 4, 1924, p. 1096.)

Benzyl Benzoate and Arterial Hypertension. While the Council on Pharmacy and Chemistry recognizes the existence of honest differences of opinion on many therapeutic questions, and desires to be liberal in its attitude toward all worthy innovations, it refuses to admit claims which are neither in harmony with already accepted facts nor supported by acceptable evidence. The wisdom of this rigorous attitude has been recently demonstrated anew with respect to the widely acclaimed benzyl benzoate. The Council has insisted that its clinical use is still in the experimental stage, despite the alluring announcements of the various alleged virtues of the compound. Benzyl benzoate has, for example, been recommended and doubtless frequently prescribed for reduction of arterial hypertension. A



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WILSON CUNNINGHAM, M.D.,
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The Wisconsin Medical Journal

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Number 7

TRANSACTIONS OF THE SEVENTY-EIGHTH ANNUAL MEETING OF THE STATE MEDICAL SOCIETY OF WISCONSIN

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DELEGATE TO COUNCIL ON HEALTH AND PUBLIC

INSTRUCTION, A. M. A.

G. WINDESHEIM, Kenosha.

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H. B. SEARS, Beaver Dam, *Secretary*.

SURGICAL SECTION.

C. J. COMBS, Oshkosh, *Chairman*.

H. F. DERGE, Eau Claire, *Secretary*.

EYE, EAR, NOSE AND THROAT SECTION.

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A. O. OLMSTED, Green Bay.

MR. J. G. CROWNHART, Milwaukee.

ADDRESS OF THE PRESIDENT, STATE
MEDICAL SOCIETY OF WISCON-
SIN, 1924*

BY ROCK SLEYSER, M.D.

WAUWATOSA

The responsibility of a presidential address comes to a man usually but once in a life time. The office has been given as a recognition of some service. In following tradition it is usual first of all to thank the organizations for the honor conferred, and then record some reflections on the general aspects of medicine, reflections which have ripened and matured in the light of experience.

Any attempt to thank this society for the many opportunities for service it has given me would be futile indeed. For nearly twenty years I have been actively engaged in medical organization work in Wisconsin and every effort has been a joy rewarded by the friendships I have made. I want you to know of the happiness you have given me and of my deep appreciation of the opportunity to serve you as delegate, secretary and president. I find it quite impossible to frame these thoughts in words.

The address has not been easy to write, for there are so many subjects I should like to discuss with you. I shall try to keep within a reasonable time limit, and if I wander about somewhat disconnectedly, and touch lightly on some points, you will know I am striving for that great virtue, brevity, in an effort to preach without hypnotic effect. I use the word "preach" for I realize this is an opportunity to sermonize which I shall not have again. A sermon without a text could be likened to a nameless offspring and so, conforming to common custom, I shall choose as my text, "Physician Go Thou and Study Thy Patient." Using this as a text I mean to plead for individualization in everyday practice; for the study and management of the individual along with the routine management of his illness. I shall, however, in the beginning, indulge in some historical review relating, perhaps, indirectly to my text.

During years of service to this society, I have watched the rapid changes of our present social organization as it relates to medicine, and I have taken a part in our efforts to meet these changing conditions. I have supported, at all times, the

logical and necessary campaign of educating the public to a better understanding of medical ideals and our efforts in the prevention of disease. I have not been unmindful, however, of the necessity of educating the physician along certain lines as well; for I have had a splendid opportunity to study the medical man himself and I know how difficult are some of his adjustments to these changes. They have brought about a spirit of uncertainty and a subconscious fear that has at times flared up almost as a professional phobia. Nor can it be denied that some of the encroachments on private practice hinting at some degree of state medicine have not been cause for alarm. Curiously, however, the fear most frequently voiced has been of the irregular and cult practitioner; and the medical man hurrying by, has forgotten his history and has failed to note a graveyard, with the tombstones galore of departed medical fads. For a historical lesson and a possible moment's entertainment as well, let us pause and read the epitaphs of a few of the ghosts of yesteryear.

Over in one corner of the graveyard we find the markers of the personal healers. Many date back to antiquity and cannot be read, but they were known far and wide in their day. If there was anything the matter with you all you had to do was to go and be "touched" by them, and they "touched" you more ways than one. They fairly radiated the healing power and "cured" by the thousands. Curiously we find the names of some who lived in this enlightened age—mostly of the "religious" variety. Here are the tombs of Dowie, and Schlatter, and Phineas Quimby, who in three days cured Mrs. Eddy of "spinal nervousness." Phineas, it seems, was the only one who "understood" her case, and she moved to Portland, Maine, for a time, to be near him. She extolled his wisdom, blossomed under the inspiration of this clairvoyant healer, and gradually elaborated her own method of healing. Schlatter, fresh from the mountains near Denver, where he had fasted forty days and communed with Deity, treated tens of thousands until the postal authorities decided that blessing handkerchiefs at so much per and sending them to the sick by mail, constituted fraud. First cousins were these of our old friend and neighbor, John Till, the greatest plaster artist of them all.

*Presented at the 78th Annual Meeting, Green Bay, Aug. 21, 1924.

Here, to one side, is the resting place of Mes-

mer, who first cured by magnets and then by personal magnetism, and here all that remains of Dr. Elisha Perkins, whose supermind invented the famous Perkins tractors made of a number of metals fused together. They were supplied free to the clergy, at five pounds to the professional man and at ten pounds to the general public. It was necessary that they be drawn downward in effecting cures or the trouble would be aggravated. Due to the "jealousy and persecution" of the physicians of the time, the clergy, and even royalty, came to the rescue of the much maligned Perkins and founded a Perkinian Institute to cure the poor. It is estimated by his son that 1,500,000 pairs of tractors were sold. We are reminded here, too, of those who cured by hypnotism and absent treatment and even their progeny are still with us. The ways of the healer passeth understanding, and it would seem this section of the cemetery could hold no more.

It is interesting to follow the development of the various drug "cures." Just before our time there were periods when the public dosed itself with antimony, and then with calomel for every illness under the sun, and they were "cured." Then came the era of sarsaparillas and everyone took a "blood purifier" in the spring. All the patent insides of the country papers carried pages of advertising. The country drug store and even the grocery paid expenses on the sarsaparilla sales. Hood and Ayer became household saints. Of course, sarsaparilla had no medicinal value; but, it had a wonderful effect on the mind. As soon as sarsaparilla lost its vogue it was succeeded in the affections of the public by the whiskey tonics. They were usually called "nerve tonics"; but, they "cured" anything. Advertising increased and the religious press was especially good to them. And then came the cures for feminine ills—good old Lydia Pinkham—and then the lithium waters, the kidney cures, and the consumption cures as well. Let us not pass by the "appliance cures"—the liver pads, electric belts, batteries, electric rings and insoles, and even our old friend, the chest protector, which wouldn't "protect" unless scapular made and red. But do not ridicule, these were serious worries to the practitioner of that day. Metal or rubber, electric, magnetic or horsechestnutetic, applied inside or outside, it cured; and the honest, hard-working and studious physician wondered at humanity and

its fickle loves as we wonder when we tune in and get Davenport and Zion City.

One of the most amusing and tragic chapters in this comedy-drama should be given over to the manipulation cures. They have varied from a gentle stroking to the "adjustment of a sub-luxation" (whatever that means). The stroking of a lame shoulder by a magnetic healer caused the pain to go right down the arm and to pass out the ends of the fingers. The greatest of these artists in all time has been the bone-setter. By a supernatural gift his delicate fingers have always been able to detect those terrible "mal-adjustments" of bones which "interfere with the flow of the vital forces." This gift, we are told, was formerly hereditary in certain families; but, a kind providence now makes it possible for the farmhand or tinsmith to acquire the art in a neighboring state—the only requirement being a certain tuition—and if unable to leave the shop or crops, it can be obtained via the mail order route quite as well. The old time bone-setters were really quite modest in their claims; but, there has been a bone-setter evolution in the last few years. Bone-setting became spine-setting. Andrew Still of Kansas blazed the trail, and then came one Palmer who painted it red. They could not keep their "great discoveries" to themselves nor apply them to the cure of suffering humanity. Indeed not, they were both divinely commissioned to teach, and teach they surely have. Both have had an abiding sense of having received a mission from on high, and Still has written, "God is the father of osteopathy and I am not ashamed of his child."

Both of the latter-day bone-setting cults, like the "scientists," have been able to impress the gullible by their use of words, words and more words. Jumbled together they sound impressive and who cares whether they mean anything. Listen to this definition of chiropractic, formulated by the apostles of the cult themselves for the New Jersey legislature:

"The term chiropractic, when used in this act, shall be construed to mean and to be the name given to the study and application of a universal philosophy of biology, theology, theosophy, health, disease, death, the science of the cause of disease and art of permitting the restoration of the triune relationship between all attributes necessary to normal composite forms, to harmonious quantities and qualities by placing in juxtaposition the

abnormal concrete positions of definite mechanical portions with each other by hand, thus correcting all subluxations of the articulations of the spinal column; for the purpose of permitting the recreation of all normal cyclic currents through nerves that were formerly not permitted to be transmitted, through impingement, but have now assumed their normal size and capacity for conduction as they emanate through intervertebral foramina—the expressions of which they were formerly excessive or partially lacking—named disease.”

Shades of Noah Webster! Where are there words to comment on such twaddle, and cult and pseudo-religious literature is full of it.

People have always been impressed by any treatment of disease which had something mystical about it or which appealed to their religious side. Greatrakes, in Harvey's time, cured thousands because he had a commission from on high. Dowie, in our own day, as Elijah, returned to earth and saved our own neighbors. But, beside these and scores of other personal religious healers we have had certain wide-spread movements such as Spiritualism, New Thought and Christian Science. They have operated through their mediums and healers. Mrs. Eddy, cured of "spinal nervousness" by Quimby, modified his belief that "sickness is the effect of belief," declared that "disease is an error of mortal mind," and established a new system of healing and religious belief that swept the country. Her philosophy of matter as non-existent is not new or original with her. It has been handed down for thousands of years; but, Mrs. Eddy was a better promoter than its originator. There is no denying that her teachings have been very helpful to many people who needed a definite change in their attitude of mind. This does not mean that their ills were necessarily imaginary; but, that the physical basis for them was slight compared to the exaggerated significance their mental state attached to them. Mention, in passing, should be made of church healing and of the number of shrines which have shown curative power. All sorts of religions have prospered on their success in healing the sick. These successes have been attained because of the extreme suggestibility of people, their tendency to make themselves ill by suggestion and then use the same method in adopting a cure. This is human nature. It has always been, is now, and ever shall be.

One might go on with this story hour after hour, each chapter more absurd than the other, and yet each of these healers or systems of healing, has attained therapeutic results with certain patients who have gone from physician to physician without obtaining relief.* The "cure" may have come from one believed to have a commission from on high, it may have been poor whiskey with a bitter taste, a punch in a perfectly good vertebra by an ex-sewing-machine agent, a harmless electricless belt, the printer's ink taken with a bottle of swamp-root; it may have been any hook on which to hang a therapeutic hope; but, it may have cured. There is no denying this for it is true. "Cures" of these types have been working successfully since earliest history. We may laugh at the absurdities recorded; but, human nature does not change, and our present age does not lag behind in its tendency to be cured by anything and everything that changes the patient's mental attitude toward himself and his ills. People healed in these manners are not limited to any strata in life. They include the rich and the poor, the ignorant and educated; in fact, it is usually the educated mind that is most suggestible. Remember children, half-wits and idiots are never cured in this manner; in fact, the quack has learned to waste no time on them. On the other hand, schoolteachers, clergymen and college professors are often easy prey, and Walsh names in addition the "high-brows" and defines them as those with more education than intelligence.

Probably half the complaints of people are due more to the fear and anxiety of a slight ailment than of the real ailment itself. A suggestion of cure accepted and given seriously will ease the mental state, relieve anxiety, give nature a chance and the suggestion is credited with a cure. Why contend that these people had nothing the matter with them and were not "cured" at all? Why speak of imaginary ills? After all the patient is the best judge of his feelings even though he is no judge of his physical condition. An insignificant functional disorder may have been exaggerated in his mind into a serious ailment. If it has interfered with the regular order of his life, his work and his happiness, it

*For a complete history of the "Cures that have failed," the reader is referred to Dr. James J. Walsh's "Cures," published by Appleton's.

is of tremendous importance to him and he gladly gives full credit to any relief which may be given him. The sufferer from a "complaint" is quite as much in need of the sympathetic understanding of a physician as is the sufferer from a definite pathological condition. Failing to find this, if relieved by the charlatan or quack, is it to be wondered at if he, in his joy and relief, feels he has a share in the discovery of a great remedial agent, and forthwith proclaims his "cure" from the housetops, in an unselfish desire to share his great find with others? These are the people who, from the beginning of time, have furnished the advertising for the imposter and the dishonest practitioner and we ourselves have been in a measure to blame.

All of this brings me back to the text of my sermon, "Physician, Go Thou and Study Thy Patient." Psychotherapy has masqueraded under so many forms that a short historical resume appeared necessary as an introduction. I have hurriedly led you through a graveyard of old time quackery to that of the present day, to show that conditions are not essentially different in the year of our Lord, 1924. Each generation has seen its crop of quackery and irregular practice. Each generation has seen its quota of cures credited to worthless fads and dishonest healers of the sick. It has been the history of the past and it will be written as the history of the future. And the answer is in my text.

I have taken this text because it seems to meet a vital need in medical practice today. Medical education has extended and broadened to a point where we are turning out better scientists than doctors. Attention is being concentrated upon the disease to the exclusion of the suffering patient. Exhaustive laboratory methods and technical tests can never take the place of the intimate personal attention and encouragement the sick man craves. Too much science and too little human interest drives him to the quack, where he receives a personality study, a satisfaction for mental distress, and some treatment at least for the symptoms of which he complains. He has been treated as a man who is sick rather than as the possessor of an interesting disease; or, he has received a careful consideration of his complaints, rather than a brusque statement that physical and laboratory examinations show there is nothing the matter with him. We have wan-

dered in our search for truth too far from the "old-time doctor" attitude toward his patient. Too often the patient has been the mere vehicle of an interesting disease and the pathology of the condition has occupied the center of the stage to the exclusion of the patient himself. Either this, or finding no pathology, we have lost interest, become impatient, and dismissed one unfit for life through mental suffering. What the quack cures is not always "imaginary" ills. The physical basis may be slight, but it is very real to the patient. He persuades himself he has a very serious condition. A vicious circle is formed. Fear masters him. Sleep and appetite fail or are impaired. He becomes introspective, morbid and depressed, exercises less, becomes over-careful of his diet. He then develops a host of minor symptoms consequent to his changed habits of living, but which he believes due to his disease. We have presented to us, then, the typical psychoneurotic, who comprises from one-third to one-half of every general practitioner's practice, who is the least understood and the most in need of understanding. We have the type who wanders from physician to physician, and, failing to be understood finally forsakes orthodox methods, falls into the first trap set by quackery and is often cured.

I plead, then, for a better understanding of the psycho-neuroses; for a recognition and treatment of the patient's illness, imaginary or real, spiritual or somatic. I plead for a study of the patient himself, a study of his situation in life, his habits, his conflicts, his inadequacies and his adjustments. Many a patient comes to you with a condition which, entirely outside of his consciousness, is a defense reaction pure and simple; an alibi for his failure to cope with some difficult situation in life. A study of the patient and his problems will disclose these tremendously important factors in his illness, and I cannot conceive that the trained medical mind is not better fitted than the quacks to solve these problems of human behavior. When it is recognized that the mind and a little knowledge of psychology play such a leading role in the comedy of life as Perkins and Eddy, Quimby and Coué, Dowie and Palmer have shown, is it not time that the trained medical practitioner give better attention to this extremely large class of patients, acquire a better knowledge of psychology and study his patient as

a human being out of tune with life and not as a "case?" Is it not time that we sense our responsibility, turn on the searchlight of truth and knowledge, and displace pseudo-medicine, pseudo-religion and pseudo-psychology in the treatment of human ills?

Let us realize that life is artificial. From the cradle to the grave we are in a constant conflict between our natural instincts and the inhibitions society has placed upon us. Some are unable to make the adjustment and they are the unhappy, the unsuccessful and the chronically ill. Facing a difficult or intolerable situation they often unconsciously run away from it via the invalid route. The nervous prostration, the dyspepsia, the constant headaches, the backaches, the insomnia, general weakness, palpitation, phobias, tics, dizziness, etc., which come to your attention year in and year out and finally drift into the hands of the quack, are only too often behavior reactions to a difficult situation which you could have solved. It is an unconscious effort to escape from something painful or perplexing and it is the individual more than his complaints that needs your attention and your sympathetic understanding. These are not cases for routine treatment. Rather are they misfits in the scheme of life demanding individualization. Treatment means management of the individual more than the management of his complaints.

In closing, may I say a word of reassurance to the faint-hearted. The practice of medicine has never been as alluring, has never held the possibilities and has never promised the rewards it does today. We shall have nothing taken away from us which we prove worthy to retain. We shall not fail to receive any reward unless we shirk the labor and the responsibilities that go with our chosen field of endeavor. In my address tonight I have tried to point out a field we have neglected. I do not believe we have measured up to our responsibilities in the care and treatment of the functional nervous disorders. Let us endeavor to give these people less treatment and more understanding. This will solve the problem of quacks and sects and cults in medicine. Let us not allow our interest in science to change our attitude toward those who need our help. Let us be first of all physicians—those who minister to the sick. Let us not renounce the place of the family doctor in the hearts of the American

people; the doctor to whom they went with their worries as well as their ills; for worries and ills bear a very close relationship which the laboratory will not show. Let us work as the great physician would have us with the love of the human soul we treat in our hearts, avoiding as our goals the stars of wealth or fame and clinging to the old ideals; the ideals of the most honored, most respected calling in all this world of ours. Let us work for

"* * * the joy of the working, and each

In his separate star,

Shall draw the things as he sees it

For the God of things as they are!"

PROCEEDINGS OF THE HOUSE OF DELEGATES OF
THE STATE MEDICAL SOCIETY OF
WISCONSIN

August 19-21, 1924, Northland Hotel, Green Bay, Wis.

TUESDAY EVENING SESSION

August 19, 1924

The first meeting of the House of Delegates was held in the Ball Room of the Northland Hotel, Green Bay, Wisconsin, at eight o'clock, President Rock Sleyster presiding.

PRESIDENT SLEYSER: The House of Delegates will please come to order.

Gentlemen, it gives me pleasure to welcome you here. I think it might be well to read from the Constitution a couple of pages on the House of Delegates. We are inclined to forget the Constitution and what it provides the different sections of the Society shall do.

* * * President Sleyster read Chapter IV—House of Delegates—of the Constitution. * * *

PRESIDENT SLEYSER: I am going to ask tonight that any member addressing the Chair give his name and residence; the Chair will not recognize any one who does not do so. This is necessary in order that the reporter may have an accurate record of who speaks.

The first order of business is the roll call of the House of Delegates. Mr. Secretary, will you call the roll?

SECRETARY CROWNHART: Mr. President, in order to save time, we have passed out registration slips. Will the President appoint a teller to pick up these slips?

PRESIDENT SLEYSER: I will appoint Dr. Fiedler, of Sheboygan, as teller to collect the registration slips.

The next order of business is the report of the Committee on Public Policy and Legislation, Dr. O. B. Bock, Chairman.

I wish to call your attention to the fact that the reports of the various committees and Councilors are published in the hand book. It will probably be unnecessary and unwise to read them all in detail. There are some that probably should be read, others that the Chairmen of the various committees can merely discuss without taking time to read in full.

Dr. Bock isn't present, so we will pass on to the next

order of business, the report of the Committee on Publication, Dr. Osear Lotz, Chairman.

REPORT OF PUBLICATION COMMITTEE

To the Members of the 1924 House of Delegates:

The writer has been Chairman of the Publication Committee for about six years. While the office does not necessarily demand very much time, it does involve a certain amount of responsibility of the contents and of the financial side of the Wisconsin State Medical Journal. Probably one of the most perplexing angles with which the Committee was burdened was the upkeep of the Journal. In fact, several years ago the cost of printing had gone up to such an extent that the question of continuing the publication was a vital one.

In the last annual report I gave you but a slight inkling of the five months' result of the new regime under which the Journal was published by the full-time Secretary of the Wisconsin State Medical Society, with the assistance of the Publication Committee. We have now a full year to look back upon and if you will glance through the statement of Mr. Crownhart, you will appreciate that the financial question at the present time is a very small one. So successfully has the business end of the Journal been conducted that it is today more than paying for itself. This is wholly due to Mr. J. G. Crownhart, the Secretary of the State Medical Society and Managing Editor of the Journal.

In regard to the Journal itself, I am sure very few explanatory words are necessary. All of you have undoubtedly appreciated and many have commented upon the splendid external appearance and upon its first class contents. Only recently the Secretary of the American Medical Association, Dr. Olin West, in commenting upon the Journal said: "I am sincere when I say that I think it improves every month." The lay number—and it might be stated for your information that Wisconsin was the first to attempt this innovation—was an experiment—the outcome of which was almost 100% success.

In order to take some of the burden from the Managing Editor, those members of the Publication Committee in Milwaukee have taken some small degree of responsibility. One of the members has been responsible to a large extent for the Editorial Department, while the Chairman has reviewed most of the original articles which go to make up the publication.

While we feel highly elated and gratified that our Journal occupies so high a standard among the group of state journals, the Committee feels that there is still considerable room for improvement, and I am taking this opportunity to appeal once more to the Council of the Journal and to the membership of the State Medical Society to come forward with suggestions and criticisms. We are anxious that your publication should be of help and value to every member and to this end we desire to give you what you want and what you need.

Respectfully submitted,

OSCAR LOTZ.

ADDENDA.

To the Members of the 1924 House of Delegates:

The Publication Committee approved and submitted the following amendment to the by-laws to the meeting of the Council, January, 1924:

Section 4, chapter VIII of the by-laws now reads:

SEC. 4, The Committee on Publication shall consist of three members and the Secretary and Treasurer. The Committee shall be in charge of the affairs of the Journal, and shall appoint the Editor and Managing Editor. The Committee shall render the annual report to the House of Delegates and to the Council at its January meeting.

The amendment proposed follows:

Strike out the words "The Committee on Publication" in line 1 and substitute "The Editorial Board." Strike out "and the Secretary and Treasurer" in line 2 and substitute after the word "members" "to be elected by the Council at its January meeting and the Secretary and Treasurer." Strike out the words "The Committee" in line 3 and substitute "The Board." Strike out the words "The Committee" in line 5 and substitute the words "The Board."

I am directed by the Council to now submit this proposed amendment to you for your consideration. The Council further directs me to say that the amendment has its unqualified approval.

Respectfully submitted,

J. G. CROWNHART, *Managing Editor.*

REPORT OF THE MANAGING EDITOR.

To the Committee on Publication and the Members of the 1924 House of Delegates:

There is submitted herewith the annual financial statement of the Wisconsin Medical Journal for the fiscal year, August 1, 1923-July 31, 1924.

It will be noted that the Journal operated during the past year at a net gain of \$1,208.95. During the last six months of the fiscal year 1922-23 there was an increase in gross advertising revenue of \$190 per month. A further increase of \$118 per month was made during the year just closed.

In accordance with the policy of the Committee to publish the best Journal possible within our means, this office notes several changes in administration for your information. 1. The Journal now pays the cost of enamel paper whenever needed to bring out illustrations. 2. The Journal now pays the cost of making all necessary cuts for illustrations. 3. A cover was approved and adopted beginning with the April, 1924, issue. 4. The Journal has been enlarged on an average of 12 pages per issue. 5. The Journal is paying its proportionate part of the total salary of the full time Executive Secretary-Managing Editor and of the one office assistant.

It has not been possible to secure an audit of the books to include with this report because of the fact that the annual meeting is held so soon after the close of the fiscal year. Such an audit will be had as of December 31, 1924, and annually thereafter.

Respectfully submitted,

J. G. CROWNHART, *Managing Editor.*

FINANCIAL STATEMENT AS OF JULY 31, 1924.

ASSETS.	
Cash in bank	\$1,435.29
Cash on hand	51.55
Prepaid postage	22.16
Accounts receivable	1,136.76
	<hr/>
	\$2,645.76
LIABILITIES.	
Bills payable	none
Prepaid advertising	60.33
	<hr/>
	\$ 60.33
Net assets or proprietary interest...	\$2,585.43

PUBLISHING COST STATEMENT.

August 1, 1923—July 31, 1924.

INCOME.	
Gross advertising receipts	\$ 8,038.91
Subscriptions	59.62
1785 members at \$2 each.....	3,570.00
Miscellaneous	704.94
	<hr/>
	\$12,373.47
DISBURSEMENTS.	
Salaries	\$ 1,236.00
Printing	7,868.52
Mailing	295.63
Discounts and CMAB Commissions.	955.65
Office supplies	97.03
Editorial expenses	168.46
Cuts and Miscellaneous	488.91
Accounts charged off.....	54.33
	<hr/>
	\$11,164.52
Net gain for the year.....	\$1,208.95
COMPARATIVE DATA.	
Assets August 1, 1923	\$ 1,376.48
Assets July 31, 1924.....	2,585.43
Gain in net assets.....	\$1,208.95

DR. OSCAR LOTZ, (Milwaukee): Mr. Chairman, my report happens to be one of the reports that doesn't need to be read, I think. Whatever we had to report has been put down in print. I want to add just one word, though, to the report, that the improvement in the Journal—I think we must all admit an improvement—is about ninety-nine per cent due to the activity and energy of our Secretary. I can't help but call attention to the work and progress which is entirely due to Mr. Crownhart, whose application and interest in the Journal has made it what it is today.

The other members of the Committee are also responsible for some of the work. Dr. Dearholt has given a good deal of time and thought in the editorial section. I think those two members are largely responsible for the splendid appearance of the Journal today.

PRESIDENT SLEYSER: Gentlemen, you have heard the report. What is your pleasure?

DR. J. J. SEELMAN (Milwaukee): I move the report be accepted.

The motion was seconded by Dr. W. Cunningham, Platteville.

DR. JOHN R. MINAHAN (Green Bay): Mr. President, in putting over that first report there seem to be some very important things to consider in it.

PRESIDENT SLEYSER: What report is that?

DR. JOHN R. MINAHAN: That first report in the book.

PRESIDENT SLEYSER: That is the report of the Legislative Committee.

DR. JOHN R. MINAHAN: Yes.

PRESIDENT SLEYSER: We will go back to that when Dr. Bock comes.

Is there any further discussion on the report of the Publication Committee? If not, all in favor of its adoption say "aye;" contrary "no." The motion is carried.

We will next listen to the report of the Committee on Medical Defense, Dr. Patek.

SECRETARY CROWNHART: Dr. Patek will not be here. He forwarded his report by mail.

Secretary Crownhart read the report of the Committee on Medical Defense.

REPORT OF THE COMMITTEE ON MEDICAL DEFENSE

Having but recently assumed the secretaryship of the Medical Defense Committee after a lapse of several years, I am hardly in a position to make any comment on the work of the year. A complete tabulation of the entire work of the Committee will be submitted to the Society at a later date.

Since the last annual report three cases were successfully disposed of; unsuccessfully represented, none.

Since January 1st, 1924, five new cases have been put into the hands of our attorneys; none of these has as yet gone to trial, and one or possibly two of them may be merely threats.

During 1923 seven cases were disposed of, all successfully.

Our record of actual results remains most enviable, and we cannot but be proud of the protection afforded the members during the many years the defense plan has been in operation.

Respectfully submitted,

(Signed)—A. J. PATEK, *Secretary,*
Committee on Medical Defense.

PRESIDENT SLEYSER: The next order of business is the election of a Committee of Twelve on Nominations. If it meets with the pleasure of the House, I suggest we pass this up until order No. 12 that we may wait for a larger attendance and a better representation. If there is no objection, we will go on to No. 8, report of the Committee on Health and Public Instruction, Dr. Stovall, Chairman.

REPORT OF COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION AND THE COMMITTEE ON SCHOOL HYGIENE.

To the Members of the 1924 House of Delegates:

These committees have been active since the last

meeting of the Society, working on the program outlined in the last report and the one made two years ago. These reports detailed a method for introducing a formal course of study of Biology and Hygiene in the State Normal Schools, and method of organization in the various County Societies for public addresses on subjects vital to the health of the public by members of the local societies.

These projects have been furthered as fast as possible. The joint committee from the State Medical Society and Teachers' Association met after the State Medical Association met in Milwaukee last year, and decided to furnish high school teachers with outlines for a course of study in hygiene and sanitation, and to supply a list of reference books, and to make suggestions for a text. It was also decided to attempt again at the next session of the legislature to have a course of instruction in biology and other related subjects part of the regular curriculum of the State Normals and County Training Schools.

The State Teachers' Association has created a section on Health and Hygiene and these committees have been arranging for the programs.

At the last meeting of the State Conference for Social Work a program on Health was arranged for. This program provided for the discussion of the basic science law which was before the last legislature, the prevention of goiter, the importance of courses in biology for graded and high schools, and neglected factors in the health of school children.

The Committee on Health and Public Instruction was voted two hundred dollars to carry out the organization of the county societies for the promotion of general health talks. This work is going ahead and with the aid of the Secretary of the State Association we hope in a few months to be able to supply each county society with manuscripts to be used for the public addresses by the members.

The section on Preventive Medicine has contained many interesting and instructive articles during the last year. We have been able to get good cooperation from others in maintaining this department. The number of contributors has increased considerably so that the Preventive Medicine Section in our Journal has now become a place where those interested in public health discuss their problems.

Respectfully submitted,

W. D. STOVALL, *Chairman.*

SECRETARY CROWNHART: Mr. President, I want to make an addenda for the Chairman of this Committee. They desire to submit a supplementary oral report, the first portion of which refers to the distribution of the Crusader by the Wisconsin Anti-Tuberculosis Association. In 1919 the Society voted to devote \$100 a year to help defray the expenses of this subscription to the Crusader. The Crusader goes to each member. At that time it represented nearly one-half of the cost of publication. Because the cost of publication has gone up materially since then, it now represents but one-seventh of the publication cost. The Committee desires to

recommend that the annual appropriation for this purpose be increased to \$300.

The second point is that the Committee believes some active work should be started at this time with reference to the general subject of periodical health examinations. They merely bring this to your attention thinking you may desire to appoint a small committee actively to take care of this work.

PRESIDENT SLEYSER: Is there any discussion on the supplementary report made by Mr. Crownhart? I suggest that we pass along to the next order of business and leave this open until Dr. Stovall comes in.

Report of the Committee on Medical Education, Dr. Jermain, Chairman.

REPORT OF COMMITTEE ON MEDICAL EDUCATION.

To the Members of the 1924 House of Delegates:

Recent developments in medical education make it imperative that more should be done in the state for medical education. The authorities of both the medical schools in this state, aim to foster the cordial relations which exist between the schools, and to develop medical education within the state in close co-operation with the medical profession. It is believed that through such co-operation a distinct contribution to medical education may be made in Wisconsin.

The State of Wisconsin General Hospital is nearing completion and will be occupied in the fall. The State University is planning to begin the third year of the medical course in the fall of 1925, and the fourth year in the fall of 1926. The hospital is designed to supplement the existing resources of the state for the care of patients, the education of physicians and nurses, and for medical research.

Marquette University, School of Medicine, now has an endowment of approximately \$2,000,000, which enables this institution to secure the best in medical education for its students. A new University Teaching Hospital is being planned, and will soon be erected.

Respectfully submitted,

LOUIS F. JERMAIN, Milwaukee,
Chairman,

C. R. BARDEEN, Madison,
EDWARD EVANS, LaCrosse.

DR. L. F. JERMAIN (Milwaukee): Mr. Chairman, I have nothing to add to the report that is printed in the hand book.

PRESIDENT SLEYSER: Gentlemen, the report of the Committee on Medical Education is before you. What is your pleasure?

DR. W. CUNNINGHAM (Platteville): I move its adoption.

The motion was seconded by Dr. Fiedler.

PRESIDENT SLEYSER: Is there any discussion? If not, all in favor say "aye"; contrary "no." It is carried.

Report of the Committee on Necrology, Mr. Crownhart, Managing Editor. That has also been published in the hand book. The Chair will entertain a motion to accept the report.

REPORT OF COMMITTEE ON NECROLOGY.

To the Members of the 1924 House of Delegates:

The following is the report of the Committee on Necrology, including deaths reported to August 1, 1924. Names of members of the State Medical Society are printed in bold face type:

Alexander, John H.	Belmont
Babcock, Frank	Cumberland
Beibesheimer, John	Milwaukee
Berwick, Thomas A.	Princeton
Birkel, John A.	Milwaukee
Budge, William H.	Marshfield
Clark, Miles H.	Ripon
Cole, C. E.	Prairie du Chien
Cotton, Henry Carville	St. Paul, Minn.
Crommett, H. B.	Amery
Downer, Mary Alice	St. Paul, Minn.
Dysart, J. P.	Milwaukee
Gratiot, C. C.	Shullsburg
Hayes, Charles A.	Chippewa Falls
Kelley, Edward J.	Milwaukee
Lang, Jacob	Milwaukee
McKellar, Archibald	Blanchardville
Malone, W. F.	Milwaukee
Mesch, A. A.	Milwaukee
Monk, Robert W.	Neillsville
Mulford, Edwin R.	LaCrosse
Neupert, Carl von, Sr.	Stevens Point
Nielsen, C. S.	Withee
Nystrum, C. E.	Medford
Reineking, Herman	Milwaukee
Richards, C. E.	Milwaukee
Rugh, Ralph E.	Racine
Schoofs, J. J.	Fond du Lac
Schwalbach, C. G.	Juneau
Stanhope, Charles D.	Milwaukee
Stoye, J. P.	Theresa
Tkadlec, Joseph	Cazenovia
Valtinke, Paul	Big Cedar Lake
Walsh, John E.	Highland
Webb, W. B.	Beaver Dam
Werner, F. C.	Watertown
Wright, F. A.	Fond du Lac
Zaun, Henry H.	Omro

Respectfully submitted,
 J. G. CROWNHART,
 Managing Editor.

approval to the list of approved hospitals for the training of interns were considered by your committee. The LaCrosse Lutheran Hospital, of LaCrosse and the Madison General Hospital were recommended for approval. From the Grand View Hospital, of LaCrosse, no satisfactory survey was received.

According to the report of the Journal of the American Medical Association, regarding Hospital Service in the United States, there are now 6,830 hospitals in the United States. The total bed capacity is 755,722. Since 1906 there has been an increase in the number of Hospitals in the United States from 2,411 to 6,063, the largest increase being in hospitals of twenty-five beds or less. Of the Hospitals 73.3% are general hospitals and 26.7% are special hospitals.

Only 940 hospitals report that they have or desire to have interns; the total demand for interns is 4,656, but only 4,021 have been obtained.

"It is quite well shown in the statistics that the appeal for interns must be made on the basis of educational opportunities offered, rather than on that of financial remuneration."

As has been previously stated the largest increase in hospitals has been in hospitals of twenty-five beds or less. In our own state many of these hospitals are poorly equipped, having no clinical or X-ray laboratories worthy of consideration. They being simply boarding houses for the sick, where operations may be performed without any opportunity for scientific study and diagnosis previous to operation.

In an article on the Intern Problem, Dr. Colwell states, "It may be safely predicted that as time goes on, hospitals will be considered less and less as progressive or safe institutions in which to treat the sick unless they are also distinctly educational institutions. Their excellence in respect to any particular function will depend directly upon the extent to which they fulfill all their functions."

According to a ruling of the National Board of Medical Examiners, no applicant for examination before this board will be considered unless his internship has been served in a hospital on the list approved by the Council on Medical Education and Hospitals.

Respectfully submitted,
 LOUIS F. JERMAIN, M.D., *Chairman.*
 L. E. FAZEN, M.D.,
 F. S. WILEY, M.D.,
 J. V. R. LYMAN, M.D.,
 JOSEPH LETTENBERGER, M.D.

DR. M. J. SANDBORN (Appleton): I move its adoption.

The motion was seconded by Dr. Fiedler.

PRESIDENT SLEYSER: Any discussion? If not, all in favor of adoption say "aye;" contrary "no." The "ayes" have it.

Report of the Hospital Committee, Dr. Jermain, Chairman.

DR. L. F. JERMAIN: There is nothing to add to the report as printed.

PRESIDENT SLEYSER: Does the Chair hear a motion to accept the report?

DR. SEELMAN: I move it be adopted.

The motion was seconded by Dr. Windesheim, of Kenosha.

PRESIDENT SLEYSER: Is there any discussion? If

REPORT OF ADVISORY COMMITTEE ON HOSPITALS.

To the Members of the 1924 House of Delegates:

During the year applications of three hospitals for

not, all in favor say "aye;" contrary "no." It is carried.

Report of the Delegates to the annual meeting of the American Medical Association, Dr. Jos. F. Smith, Chairman.

REPORT OF THE DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

To the Members of the 1924 House of Delegates:

Your three delegates to 75th Annual Meeting of the American Medical Association were all in attendance at this meeting held at Chicago June 9-13 last. While this meeting was fully reported in the Journal of the American Medical Association, we call your attention to some special points of interest.

In the first instance, Dr. Rock Sleyster was again re-elected Vice-Speaker of the House for the ensuing year while Dr. H. M. Brown was appointed a member of the Reference Committee on Legislation and Public Relations.

Second, Wisconsin is in third place in the percentage of her physicians that are subscribers to the Journal of the American Medical Association. North Dakota leads with 71 per cent while Wisconsin has 65 per cent.

Third, The House of Delegates was reapportioned on the basis of one delegate to each 950 members or fraction thereof. With 1914 members reported, Wisconsin retained its right to send three delegates to the Association.

Fourth, Wisconsin had a registration of 407 which gave it third place in the registration by states.

In conclusion there is entered as an addenda to this report certain resolutions passed by the House which it may be well to have considered by a Reference Committee at this meeting.

Respectfully submitted,

JOSEPH F. SMITH,

For the Delegates.

ADDENDA.

I.

WHEREAS, There has lately been an enormous increase in the use of cosmetics; and,

WHEREAS, Many of these cosmetics contain chemicals irritating and even dangerous to the human organism; and,

WHEREAS, The dye paraphenyldiamin has so often resulted in serious and even in dangerous irritation when employed in furs and on human hair; be it

Resolved, That the Section on Dermatology and Syphilology, through its regularly appointed Executive Committee, urgently recommended to the favorable attention of the American Medical Association that they foster legislation placing cosmetic preparations under the Food and Drug Act, and especially requiring the placing of the names of all poisonous ingredients on the labels.

That they foster legislation prohibiting the use of the most harmful types of ingredients in cosmetics, and that they foster legislation to prohibit the use of paraphenyldiamin as a dye for hair and fur, and that this

Council on Legislation of the American Medical Association urge laws with criminal liability to enforce the recognition of these demands.

II.

WHEREAS, Many problems and questions of ethics and propriety concerning institutional publicity, are constantly arising; and,

WHEREAS, There is no definite published guide available to the directors and officials of medical institutions; and,

WHEREAS, There is a widespread need for such guidance; therefore be it

Resolved, By the House of Delegates of the American Medical Association:

1. Publicity by clinics, hospitals, sanatoriums and other semipublic medical institutions as to quality of work done implies unusual and exceptional ability and efficiency on the part of their professional staffs and therefore is advertising of the medical men concerned. This type of advertising distinctly savors of quackery and is unethical.

2. Publicity by any such institution stating or implying that by reason of its exceptionally fine equipment and material resources, it is able to, or does, give the public better medical service than similar institutions are able or willing to render, is advertising for purposes of self-aggrandizement. Statements of this type frequently exaggerated and misleading, are detrimental to the best interests of the public, of the institution concerned, and of true medical progress. Publicity of this kind is unethical.

3. Hospitals, sanatoriums and other similar public medical institutions must raise funds both for capital investment and running expenses from an interested public. Furnishing to the public facts concerning such an institution, its work, its aims and its ideals is legitimate and desirable. Such publicity deals in facts to which the public is entitled and in which it is interested, and is therefore ethical, provided it carefully refrains from any comparisons, either direct or implied; therefore be it further

Resolved, That the proper officers of the American Medical Association be instructed to seek the approval of the American Hospital Association of these ethical standards.

III.

WHEREAS, The honor and integrity of the medical profession are being discredited by the unnecessary, unprofessional and unlawful prescribing of alcoholic liquors by some unscrupulous physicians; be it

Resolved, That in the judgment of the House of Delegates of the American Medical Association, in session assembled, every state and county medical association should use their best endeavor to discipline physicians who either negligently or wilfully prescribe alcoholic liquors otherwise than in accordance with the law, and to purge the medical profession of physicians who wilfully, under the cloak of their profession, prescribe alcoholic liquors for other than medicinal purposes; and

Resolved, further, That the Secretary of this Associa-

tion forward a copy of this resolution to the federal prohibition officer in Washington and to every state prohibition officer of the United States with a request for their co-operation.

IV.

The Judicial Council of the American Medical Association submitted to the House of Delegates at the recent Annual Session a supplementary report dealing with the general question: Shall the medical profession vend its products directly to the consumer or shall it sell them to a middleman or third party?

The Judicial Council expressed the opinion that the problems involved in this question are of superlative importance to the medical profession. The report of the Judicial Council is based on the fact that lay organizations have been organized for the purpose of making periodic physical examinations through medical examiners employed by these organizations, and reporting to the individuals examined through the central offices of such organizations. These concerns, it seems, charge the individual examined a much larger sum than is paid to the physician who makes the examination, and thus they act as middlemen between the medical profession and the laymen.

The report of the Judicial Council with respect to this matter was considered by the House of Delegates in the Committee of the Whole. The report of that Committee of the Whole submitted to the House of Delegates and unanimously adopted was as follows: "*Resolved*, That the Committee of the Whole recommends to the House of Delegates that the practice outlined in the supplementary report of the Judicial Council be condemned as against the best interests of the public; and be it further

"*Resolved*, That the Judicial Council be instructed to carry on an educational campaign in conjunction with the constituent state associations and to cooperate with other Councils and Bureaus of the American Medical Association in the promotion of periodic health examinations by family physicians."

DR. JOS. F. SMITH (Wausau): Mr. President, the report is published in detail and there are three addenda to the report which I hope you have all read and which perhaps might require a little elaboration.

The first addendum refers to the use of certain dyes, used in cosmetics, that cause serious and dangerous irritation. The Section on Dermatology brought in the resolution which you find printed on the middle of page 34. They recommend that legislation prohibiting the use of the most harmful types of ingredients in cosmetics be fostered to prohibit the use of paraphenylenediamin.

The second addendum here refers to the matter of indirect publicity through clinics, hospitals, sanatoriums and other institutions and the resolution found at the middle of page 35 is offered, that the proper officers of the American Medical Association be instructed to seek the approval of the American Hospital Association of these ethical standards.

Now perhaps the most important addendum of the three is the last one, No. 3. That relates to the exploiting of the medical profession by certain organizations which have commercialized the idea of periodic examinations which now has taken quite a hold on the public mind. Perhaps you have noticed in the newspapers there have been published large full page advertisements by health institutes and other organizations which most of us perhaps have supposed were either charitable or semi-charitable organizations. It turns out that these organizations, these so-called health institutes are really middle men. They are hiring the skill and the time of members of the medical profession on a salary, and usually a small salary, and retailing it to the public at \$10 or \$20 or whatever the fee may be. It was surprising in the House of Delegates to find that on the list of supporters of one of these so-called health institutes there was the name of one of the trustees of the American Medical Association and a number of men who are prominent in political and medical organizations throughout the country. This simply goes to show these men had been misled as to the real nature of this organization and its work and perhaps had the same idea that most of us have had, that the organization was carrying on a charitable work instead of a purely commercial proposition. It was pointed out in the House of Delegates by the Chairman of the Council that one of these organizations has paid forty per cent dividends and has been a very successful organization. So it seems to me that matters of this sort deserve some attention at our hands. I believe that this matter is also covered by two resolutions which are printed on the last page, 36.

Regarding the meeting of the House of Delegates, I think you will be interested to know that Dr. Sleyster, our President, was reelected Vice-Chairman of the House of Delegates of the American Medical Association. Dr. Brown has also been in the house a long time as a member of one of the important committees.

PRESIDENT SLEYSER: Gentlemen, is there any discussion of the report of this Committee?

DR. JOHN R. MINAHAN: Mr. President, I would like to inquire if there were any of those institutions in Wisconsin.

PRESIDENT SLEYSER: I think not, Doctor. I think the institution to which this report specifically refers is the Life Extension Institute, of New York.

DR. JOS. F. SMITH: The American Health Institute or something of that sort was the other.

PRESIDENT SLEYSER: It has always seemed wise to me that matters such as resolutions be referred to a committee which the House might elect or the Chairman appoint. In order that they may receive careful consideration I think it would be wise if we were to elect a committee to consider these and any others that may come up and report back to a future meeting of the House. If this meets with your approval, I would be glad to entertain a motion.

DR. JOS. F. SMITH: Mr. Chairman, I move a committee on resolutions be appointed by the Chairman.

The motion was seconded by Dr. Fiedler.

PRESIDENT SLEYSER: And discussion? All in favor say "aye;" contrary "no." It is carried.

The next order of business is report of the Delegate to the Council on Medical Education. Dr. Jermain.

REPORT OF DELEGATE TO MEETING OF COUNCIL ON MEDICAL EDUCATION AND HOSPITALS.

To the Members of the 1924 House of Delegates:

The meeting was held in Chicago, March 3rd, 4th, and 5th, 1924. The present needs of Medical Education were outlined by the Secretary, Dr. N. P. Colwell. He emphasized more careful selection of instructors; correlation between Laboratory and Clinical Teaching; Undergraduate and Graduate Courses; Limitation of Enrollment; Graduate Medical Education; Extension Graduate Teaching, and discussed the scarcity of physicians in rural districts.

Abraham Flexner, Secretary of the General Education Board of New York, discussed Medical Education in Europe, made comparisons of medical education between European countries and America; emphasized the importance of clinical teaching, and discussed, "Some Remaining Problems."

The Clinical Teacher and the Medical Curriculum were discussed by Dr. Harvey Cushing. The Business of a University Medical School by President Burton of the University of Chicago, and suggestions on the Medical Curriculum including the Clinical Specialties were given by the Chairman of a Special Committee, Dr. George E. De Schweinitz.

Respectfully submitted,

LOUIS F. JERMAIN, M.D.,

Delegate.

DR. JERMAIN: I have nothing to add to the report printed in the hand book.

DR. OTHO FIEDLER (Sheboygan): I move its acceptance.

The motion was seconded by Dr. Mauerman of Monroe.

PRESIDENT SLEYSER: All in favor say "aye;" contrary "no." The "ayes" have it.

The next is the report of the Chairman of the Council, Dr. Edward Evans. I would suggest Dr. Evans read his report.

REPORT OF THE CHAIRMAN OF THE COUNCIL.

To the Members of the 1924 House of Delegates:

Rather than recite any detailed activities of the Society during the past year, I take this opportunity to call the attention of the House to certain of the outstanding policies of the Society.

The past year saw an extra meeting of the Council which was held in June. The amount of business transacted fully justified the extra meeting. It would appear that three meetings of the Council will be needed hereafter.

A program of lay educational work was submitted to the Council in accordance with your action in 1923. This program was approved by the Council. It has been put into effect. A continuation of this active work

should be authorized. It is a constructive work that builds for the future and while we have but limited funds available, so far as these funds are available this work should be expanded. There are upwards of two and three-quarters million people in Wisconsin. The members must realize that the result of this work will not at once become apparent in every community of the state. It may not ever bring about actual concrete things to which we can point as results of the work. I anticipate rather that it will accomplish most in gradual manner. As President of the Council I can assure you that the basis for the work is sound, that it meets with the hearty approval of the Councilors, and I urge its continuance.

One other major point I desire to bring to your attention. Your Council is constantly faced with the necessity of forming new policies or changing old policies to meet new conditions. This must inevitably be in any counciling body of a progressive society. In this work your Councilors, representing every district of the state, desire to reflect the group opinion in their several districts. They are all willing and sacrifice time, often much time, to visit the societies in their districts. They should have your frank confidences. The State Medical Society of Wisconsin is an association of and for all of its members. It will thrive only as it receives the support of all of its members. The support of its members means that each should take an active interest in the Society; offer criticisms when they seem necessary, and offer suggestions when they occur to you. Your Society is responsive to a degree that few may now realize. Each step forward is blazing another tree on a new trail. That member may well be proud who can point to a blaze on that trail as having been made at his suggestion.

Respectfully submitted,

EDWARD EVANS.

DR. EDWARD EVANS: Mr. President, the report is published on pages 19 and 20. I will make just a few remarks. You will notice at the bottom of page 19 a program of lay educational work was ordered by the House of Delegates and approved by the Council at our last meeting. Now while the Secretary has been doing an enormous amount of work, as you have realized by the lay educational number he has sent out of our Journal, I feel he can't do the work alone. It is absolutely necessary that every member of the State Medical Society, and especially the delegates from the various county medical societies and the Councilors and Secretaries get behind him if this is going to succeed. It is exceedingly important this year that every member works because we are going to have a meeting of the legislature next year and there will undoubtedly be the same sort of bills introduced as there were at the last session. Standards for public health had a pretty narrow escape the last time. So it is necessary that we get behind our Secretary in this work.

In the middle of the last paragraph one of the sentences is very important. I should like to call your attention to it. "The State Medical Society of Wisconsin

sin is an association of and for all of its members." Now I believe the American Medical Association by its formation, beginning down at the county medical society, going up through the state and into the A. M. A., is ideally formed to get good work. The county society can't function unless its members function, neither can the state society function unless the delegates appointed from the various medical societies work as a unit to push across this work.

I think it is exceedingly important that we get behind our Secretary at this time who has been doing such marvelous work for us. I think he is staying with us now because a good deal of enthusiasm has been manifested in the county medical societies he has visited. He has had flattering offers to leave us. I believe he is staying with us because he wants to see the work we have undertaken perfected. He can't do it unless we get back of him. So I would appeal again to the House of Delegates and the Councilors and county secretaries and every member of the State Medical Society to get behind him during the coming year.

There is no use appointing our Legislative Committee to go down there when the house is in session, it doesn't do any good. We need to button-hole the men that are up now for election. That is the time to reach them. I don't suppose any of you need to waste any time on Dr. McDowell, because he will be all right and he is going to be a member of our next assembly. But there are a whole lot of men that need information and I hope you will get behind our Secretary and the officers of the Society.

PRESIDENT SLEYSER: Gentlemen, you have heard the report of the Chairman of the Council. What is your pleasure?

DR. S. HIGGINS (Milwaukee): I move it be adopted.

The motion was seconded by Dr. Redelings.

PRESIDENT SLEYSER: All in favor of accepting this report say "aye;" contrary "no." The "ayes" have it.

Is Doctor Bock in the room? I am going to appoint Dr. Fiedler a committee of one to locate Dr. Bock and bring him in.

DR. FIEDLER: Dr. Stovall is here. I can't see Dr. Bock.

PRESIDENT SLEYSER: Well, we will proceed. Inadvertently the report of the Committee on Cancer has been left out of the hand book and the list of order of business. We will now listen to the report of the Committee on Cancer. Dr. J. P. McMahon, Chairman.

DR. J. P. McMAHON (Milwaukee): Mr. Chairman, the omission of the report of the Committee on Cancer is really due to the efficiency of the Secretary in getting his notices out promptly and the tardiness of the Cancer Committee. We have been working now through the Committee in behalf of getting an earlier diagnosis of cancer for eight or ten years. It seems during the last two or three years we are commencing, at least in our part of the country, to notice some results. As you will recall, there is a National Association for Study and Prevention of Cancer and Control of Cancer. As you will also recall, there were three state-wide campaigns

conducted in Wisconsin, or rather two campaigns by the State Board of Health and some work was done in addition to what the State Board of Health did in Milwaukee and other places. There was no general campaign put on last year for the reason that Mr. Hopper believed the profession was probably getting tired of continual agitation about cancer and for the further reason that the funds which he had and the time of his staff was very well taken up with other questions.

Now it is a fact that people are commencing to know more about cancer, that they are consulting their physicians earlier and that there are many people presenting themselves for advice with reference to pre-cancer conditions and some conditions superficial which are not cancer at all. It seems to some of your Committee (we haven't had a full session) that there are two things for us to do: One is to continue undertaking to promote education on the early symptoms of cancer in the profession; the other is to continue to carry the message of the early symptoms of cancer to the laity. Then thirdly as the result of the efforts which we put forth with reference to educating ourselves (and there is a whole lot about cancer that none of us knows yet) is the problem of having more or less uniform information and advice given to the patients when they consult us. Medicine is not an exact science and it will probably be a long time before it will be absolutely uniform.

In order to help bring about a greater uniformity, a greater degree of uniformity in the advice given, the American Society for the Control of Cancer has seen fit to re-write their hand book for the medical profession. A new hand book came out revised January, 1924. This book was written by Dr. Greenough, Director of the Harvard Cancer Commission; Dr. James Ewing, Director of the Cancer Research Memorial Hospital, and also Professor of Pathology at Cornell University; and Dr. Jonathan M. Wainwright, Chairman of the Cancer Committee, Pennsylvania State Medical Society, Scranton, Pa.

When this book was sent to me it seemed as though it would be advisable to have a copy of it placed in the hands of each member of the medical profession throughout the state. Copies were forwarded to the members of the Committee. Some of them have replied and some of them have not.

The question is how it would be financed. I wrote a letter to Mr. Hopper asking whether or not he would be in a position to finance it. In lots of one hundred or more it can be obtained for twenty-three or twenty-four cents, under twenty-five cents anyway.

The other way of distributing it would be having the State Medical Society do it. The cost would be approximately five hundred dollars. It occurred to me that might be one worth while outlet for the money which the Society inherited from the Wisconsin Surgical Society. Of course, it also occurred to me to distribute it and charge the members for it. In discussing the matter with the President the other night, he rather seemed to favor the latter means of distributing it to the profession, having the members pay for it, having circu-

lars issued, having a card prepared whereby it could be sent back, on the theory (and I think the point is very well taken) that things distributed for nothing are usually put in the wastebasket.

I don't know, Mr. President, how much time you want to take up on this. I am sure the great majority could use this book to advantage. If it were used and the material which is herein contained met with the approval of the great majority of the profession, we would have uniform advice given to patients. As it is now they get different kinds of advice.

Now as a further effort towards this campaign of education, it occurred to us it would be well, particularly if we don't have a cancer campaign this year conducted throughout the whole state, to forward little circulars and leaflets of information to clergymen, to teachers, to social workers, to nurses, to druggists and others for distribution. It is certainly a fact that a great many of our clergymen are asked for advice in reference to cancer when they make sick calls. Many of them know little more about it than school children. Many of them don't suspect it in themselves.

We have a little envelope here which contains leaflets which seem to be worth while to circularize or to forward to these professional and semi-professional people. The first one is "Twenty Points About Cancer," prepared by the National Association and printed by the State Board of Health when they put on the campaign two years ago. The next one is a recent leaflet entitled "Destroy the Weed" published by the American Society for the Control of Cancer. The next one is a new one which just came from the press "Cancer Control—How the Nurse Can Help Towards Its Accomplishment." These were distributed to the nurses at their national convention held in Detroit a short time ago, also another one which appeared in the Journal which Mr. Crownhart issued, showing the increased incidence of cancer in the registration area and in Wisconsin.

I have also thought that it might be well to include with this, if it is advisable to forward it, the article which appeared in the lay issue of the Medical Journal on the symptoms of cancer in different parts of the body.

With these rather rambling remarks, Dr. Evans and myself I am sure, and the other members of the Committee who are here would be glad to have a short discussion of your reaction on the advisability of continuing to place the most recent information on the whole subject of cancer in the hands of each member of the medical profession in the state through this hand book and to follow it with anything else that may come out that is worth while and to continue at least to educate the professional people and the semi-professional people, (I should have mentioned the dentists a moment ago) the clergymen, nurses, dentists, druggists, school teachers and others. Thank you very much.

PRESIDENT SLEYSER: You have heard the report of the Cancer Committee. Is there any discussion?

DR. J. P. McMAHON: I might say, Mr. President, I asked that twenty-five of these copies be forwarded here

so as to reach me tonight. I received a telegram that they will be forwarded in the morning, so they will not be here until the meeting is over. If they would care to have the sub-headings read off, it would take about two minutes to do it.

DR. T. J. REDELINGS (Marinette): Mr. Chairman, I move the report of this Committee be referred to the Committee on Resolutions which is about to be appointed.

The motion was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: Is there any further discussion? If not, all in favor say "aye;" contrary "no." The "ayes" have it.

We will turn to No. 7 in the order of business, the election of a committee of 12 on Nominations, one from each councilor district. It has been customary to call on all the members from each district to stand in order that the other members of the district may see who is here and elect one member to this committee. The committee is to bring in the nominations for the various officers of the Society on Thursday morning.

The first Councilor District is composed of Dodge, Jefferson and Waukesha Counties. Will the members in attendance from these counties please stand? The Chair is ready to entertain the nomination of a member from this District.

DR. S. B. ACKLEY (Oconomowoc): I nominate Dr. H. O. Caswell, of Ft. Atkinson.

The nomination was seconded by Dr. Redelings.

PRESIDENT SLEYSER: All in favor say "aye;" contrary "no." Dr. H. O. Caswell, of Ft. Atkinson is elected.

The second District is composed of Kenosha, Racine and Walworth Counties.

DR. G. WINDESHEIM (Kenosha): I nominate Dr. J. S. Keech, of Racine.

The nomination was seconded by Dr. Jegi.

PRESIDENT SLEYSER: All in favor say "aye;" contrary "no." Dr. J. S. Keech, of Racine, is elected.

The third District is composed of Dane, Columbia, Green, Rock and Sauk Counties.

DR. MAUERMAN: I nominate Dr. Munn, of Janesville.

The nomination was seconded by Dr. Schmeling.

PRESIDENT SLEYSER: All in favor of the nomination say "aye;" contrary "no." Dr. Wayne Munn, of Janesville, is elected.

The fourth District is composed of Crawford, Grant, Iowa, LaFayette and Richland Counties.

DR. CUNNINGHAM: I nominate Dr. A. J. McDowell, of Soldiers Grove.

The nomination was seconded by Dr. Joseph Smith, of Wausau.

PRESIDENT SLEYSER: All in favor of the nomination say "aye;" contrary "no." Dr. A. J. McDowell is elected.

The Fifth District is composed of Calumet, Manitowoc, Washington-Ozaukee and Sheboygan Counties.

DR. C. M. GLEASON (Manitowoc): I nominate Dr. Fiedler.

The motion was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: All in favor say "aye;" contrary "no." Dr. Otho A. Fiedler, of Sheboygan, is elected.

The sixth District is composed of Brown-Kewaunee, Door, Outagamie, Fond du Lac and Winnebago Counties.

DR. JOHN R. MINAHAN: I nominate Dr. F. C. Huff, of Sturgeon Bay.

The nomination was seconded by Dr. Joseph Smith.

PRESIDENT SLEYSER: All in favor of the nomination say "aye;" contrary "no." Dr. Huff is elected.

The seventh District is composed of Juneau, La Crosse, Monroe, Trempealeau-Jackson-Buffalo and Vernon Counties.

DR. J. F. MAUERMANN (Monroe); I nominate Dr. H. A. Jegi, of Galesville.

The nomination was seconded by Dr. John R. Minahan.

PRESIDENT SLEYSER: All in favor say "aye;" contrary "no." Dr. Jegi is elected.

The eighth District is composed of Marinette-Florance, Oconto and Shawano Counties.

DR. C. J. OUELLETTE (Oconto): I nominate Dr. Nadeau of Marinette.

The nomination was seconded by Dr. Redelings.

PRESIDENT SLEYSER: I would like to have the members of the House of Delegates meet Dr. Hornbogen of northern Michigan, who has been a member of the House of Delegates with me a great many years in the American Medical Association and is considered the orator of the house (Applause).

DR. HORNBOGEN: You know we are gradually training your man Roek Sleyser for something better; but if he keeps on doing things like that, I don't think he will get it.

PRESIDENT SLEYSER: We are mighty glad to have you here and we want you to make yourself right at home.

All in favor of the election of Dr. Nadeau, say "aye;" contrary "no." Dr. Nadeau is elected.

The ninth District is composed of Clark, Green Lake-Waushara-Adams, Lincoln, Marathon, Portage, Waupaca and Wood Counties.

DR. F. A. SOUTHWICK (Stevens Point): I nominate Dr. Joseph Smith, of Wausau.

The motion was seconded by Dr. Spencer of Wausau.

PRESIDENT SLEYSER: Any further nominations? If not, all in favor of Dr. Smith's election, say "aye;" contrary "no." The "ayes" have it.

The tenth District is composed of Barron-Polk-Washburn-Sawyer-Burnett, Chippewa, Dunn-Pepin, Eau Claire, Pierce, Rusk and St. Croix Counties.

DR. J. C. BAIRD (Eau Claire): I nominate Dr. F. E. Butler, Menomonie.

The nomination was seconded by Dr. Dawson.

PRESIDENT SLEYSER: Are there any further nominations? If not, all in favor of Dr. Butler's election say "aye;" contrary "no." The "ayes" have it.

The eleventh District is composed of Ashland-Bayfield-Iron, Douglas, Langlade, Oneida-Forest-Vilas and Price-Taylor Counties.

DR. J. C. WRIGHT (Antigo): I nominate Dr. J. M. Dodd, of Ashland.

The nomination was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: Are there any other nominations? If not, all in favor say "aye;" contrary "no." Dr. Dodd is elected.

The twelfth District is composed of Milwaukee County.

DR. J. J. SEELMAN (Milwaukee): I would like to nominate Dr. Blumenthal.

The nomination was seconded by Dr. Thompson, of Milwaukee.

PRESIDENT SLEYSER: Are there any further nominations? If not, all in favor of Dr. Blumenthal's election say "aye;" contrary "no." The "ayes" have it and Dr. Blumenthal is elected.

I would suggest that this committee meet in this room tomorrow morning at eight-thirty sharp, organize, elect a chairman and have any future meetings that are required. You bring in a report to the House of Delegates Thursday morning.

Is Dr. Bock in the Hall? Dr. Stovall? If not, we will proceed to the report of the Councilors. Dr. A. W. Rogers, first District.

DR. ACKLEY: I am acting for Dr. Rogers.

As perceived in the report here, the first District is plus four, but we are really plus six. Waukesha County has gained ten members over last year, and we have had good meetings. We have had good meetings in the whole district. They have been good meetings and frequent meetings; Waukesha County every month. There is one District, the sixth District, in our plus class, the rest are all minus at the present time.

PRESIDENT SLEYSER: The second District, Dr. Windesheim.

DR. WINDESHEIM: I presume by the report here the second District has fallen down considerably. I should like to compliment the Councilor of the first District for the wonderful gain they have made, I say wonderful compared with the other Districts. It is some work on the part of the Councilor.

I believe it is the fault of the Councilor of the second District that the showing is so poor. Kenosha used to have a meeting every month. They haven't had any meetings for the last five months for some reason or other. The only County Society that is keeping up its work is Racine County.

PRESIDENT SLEYSER: The third District, Dr. Harper.

DR. LOTZ: May I break in here? Is it true that Waukesha County is the only county that has one hundred per cent full membership of all the medical men? Is there any other county with that record?

PRESIDENT SLEYSER: I think Langlade County has that record.

SECRETARY CROWNHART: Door has and there are others.

PRESIDENT SLEYSER: Is Dr. Harper present. (no response).

Dr. Cunningham of the fourth District.

DR. CUNNINGHAM: Mr. President, the membership is practically the same in the fourth District excepting Grant County where there is a gain of two. I think that accentuates the importance of a good active secretary. You will notice each year for the last several years Grant County has kept up its membership to par due to the efforts of our secretary, Dr. Glasier. I think it is mainly due to her efforts that the membership has been kept up as it has been. The membership otherwise is about the same as in other years. The general medical spirit I think is about the same as it has been.

We had during the year one very good district meeting at Lancaster attended by our Secretary, Mr. Crownhart, and we had some fine speakers. It was a very enthusiastic meeting and very well attended.

PRESIDENT SLEYSER: Dr. Boek, of Sheboygan. (No response).

Dr. Connell, of Oshkosh.

DR. F. G. CONNELL (Oshkosh): Mr. Chairman, the sixth District can report a very satisfactory year's progress, both as to the number and character of meetings that were held in Winnebago, Fond du Lac and Outagamie Societies. Brown-Kewaunee and Door unfortunately have not placed the Councilor's name on their mailing list and I do not know just what their scientific program has been during the past six months. I hope that this state meeting being held in Green Bay will stimulate the progress of the next year in the meetings of the county societies.

The membership has been practically the same as last year despite the increase in dues which I feel is very encouraging. I think that it is important that we recognize the work of the secretaries of these societies and urge upon the members when they return and have their election to give a little thought to the election of the secretary of the county society as the progress and development of that society depends almost entirely upon the secretary.

PRESIDENT SLEYSER: Dr. Edward Evans, of the seventh District.

DR. EDWARD EVANS (La Crosse): As you notice in the printed list, we have a delinquency or a drop in membership. Most of those, however, are due to removals, some nine, and one death. For the first time in many years I think we are going to have a good district meeting this fall, next month. The societies have been jogging along about in the usual way I think.

I do want to say here a word of commendation for the Trempealeau-Jackson-Buffalo Society. They are three sparsely settled counties, poor roads and poor railway facilities and yet they are doing the best work in my district. They are a live organization due partly, I think, to a good live secretary and also because he has good timber to work on.

PRESIDENT SLEYSER: Dr. Redelings, of the eighth District.

DR. REDELINGS: Mr. Chairman, I am pleased to report the situation in the eighth District is quite satisfactory. Speaking of the counties individually, I would say emphatically so far as Marquette-Florence is con-

cerned I don't believe there is a county in the state in which the spirit of the medical profession is better than in Marquette-Florence. We have no cliques of which I am aware. There is no division in our profession; so far as I know we are a unit. We seem to love each other and try to spread the news that there is one county in the state of Wisconsin where medical men like each other.

We have had supernumerary meetings. We schedule one a month. We have had picnics and had the ladies out and we had jolly good times. By the way, I would like to say to all the delegates here that the picnic is one of the best things to get the boys out that ever was if you can get somebody to stir things up and offer something worth while. Don't forget that the stomach is the best route through which to reach the masculine side of the family. We had good eats, we had sports, we had a fine time and we had a rainy day, and we had a full attendance, thirty-two at the table.

I wish to quote some of the men who have come to us to help entertain. If there is any criticism of our own group it is we haven't quite worked hard enough. Some of our members have produced excellent material; most of the time we bought our entertainment. It has been my pleasure and privilege to be very near to some of the men who came and this is what one of the members said to me when I was taking him to the train: "Dr. Redelings, how do you do it, a county meeting and keep the thing going until midnight with a hurrah?" We did it.

May I say this of Oconto: Oconto maintains a paper organization. It has a group of very commendable men. It has a few whom it seems impossible to work and I have gone the limit in former years, not in recent times. This is ancient history so far as what I did or tried to do but I couldn't put it over. I made a very much delayed visit to Shawano this year and had a splendid afternoon with a wonderful program. I would just like to say to the Shawano delegates that in the atmosphere I felt there was derision among men. I am afraid that Shawano is divided into little cliques or groups, and I would plead here, as I did there, that that thing be effaced; get together, it is cooperation, coordination; and away with the word "competitor."

So far as I am personally concerned, I am pleased with the situation in my district and I don't claim a bit of credit for it because I am lazier than any man in the Council.

Mr. President, I want to say this with reference to the printed report. Unfortunately I haven't a detailed report at my command but I don't quite understand the delinquency. We are given six in the District and I can only account for four. Marinette County is given a loss of one which I don't appreciate but didn't eek up just before I came away. We lost one member by death and we have gained one by removal and our number should be the same. We think we have one hundred per cent membership and yet we are credited with one removal that I don't locate. I am not in position to account for the little loss in Shawano. Take it all in all, I feel better

with reference to the work in my district this year than I have in a goodly number of years.

I beg your pardon, Mr. Chairman, my colleague here reminds me the Oconto men come to Marinette. We have a group of live wires down there in Oconto and they come up to our meetings and we are glad to entertain them and glad to have them come. We have men that come to our meetings and drive forty and forty-two miles regularly. I thank you.

PRESIDENT SLEYSER: The Chair believes there is something in Dr. Evans' insinuation (Laughter).

DR. REDELINGS: I am coming back Mr. Chairman. Unless there is a detour there is not, and the officers are not responsible for any detours. I don't believe you can hold us responsible.

PRESIDENT SLEYSER: Dr. Redelings, some of the members would like to know when you have your meetings and would like to appoint a committee to investigate.

The ninth District, Dr. Smith.

DR. JOSEPH SMITH: Mr. Chairman, the ninth District, of course, is a very large district, rather widely scattered, and so far as I know all the counties with the possible exception of two have been holding meetings at more or less regular or irregular intervals. Our District shows a loss of two and one delinquent, which I think is a very good showing considering the size of the District and the widely scattered territory that it covers. We have been having our regular quarterly meetings of the Councilor District Society, as we have had for a number of years. That is one institution that we lay a good deal of stress on and we think we get a great deal of benefit from it. These meetings are held at various cities in the District and we usually have from thirty to sixty members present.

PRESIDENT SLEYSER: The tenth District, Dr. Mitchell, of Eau Claire. (No response).

The eleventh District, Dr. Dodd, of Ashland.

DR. J. M. DODD (Ashland): Mr. Chairman, with reference to the printed report, it shows we have in that District, comprising ten counties and spread over an area of northern Wisconsin of about two hundred miles long and one hundred miles wide, one hundred and two doctors. There has been a slight falling off from some of the societies and a slight gain in others. Ashland shows a loss of seven in this report. I think that is due to inactivity of the officers of the society, possibly to some extent to the failure of the Councilor to keep after them and get results. Douglas County makes a good showing. It is noticeable that the best work by the societies is done in the large communities or in those of fairly large size. Douglas County does good work. It is stimulated and assisted in its activities by its proximity to Duluth and the activity of the profession there in the matter of medical meetings finds expression through the Interurban Academy of Medicine, a medical organization composed of the physicians of Superior and Duluth. They have very good meetings there and I believe the spirit in Superior, Douglas County, is very good.

We have in the Ashland-Bayfield-Iron County Society some good meetings. They occur at rather irregular intervals. We are supposed to meet monthly but we don't always do so. I believe that the county society should keep a little closer in touch with the Councilor, or at least I believe they should notify him of the meetings and that Councilor should endeavor to attend at least one meeting a year. I have failed rather signally in that respect but like all human creatures we resolve to do better in the future. It has been suggested by another member of the Council that the Councilor be kept on the mailing list of the county medical society. I think that is a very good suggestion and if the Councilor fails to attend the meetings he should be given due credit if he has not been notified as to the time and place of the meeting.

DR. JOSEPH SMITH: Mr. Chairman, may I just add that since the publication of this hand book the ninth District has had four of the five delinquents pay up, so we have one delinquent and a loss of two and a membership of one hundred and fifty.

PRESIDENT SLEYSER: It is so corrected.

The twelfth District, Dr. Dearholt, of Milwaukee.

DR. HOYT E. DEARHOLT (Milwaukee): The County Society, as you see, has a relatively high mortality as compared with the rest of the state. It is somewhat less than one-fifth of the members of the Milwaukee County Society.

DR. MAUERMANN: Mr. President, since Dr. Smith made a correction I notice there are two delinquents in my District; one of those has moved to California and the other has paid up.

PRESIDENT SLEYSER: The record will be so corrected.

Gentlemen, you have the reports of the various Councilors before you. What is your pleasure?

DR. JOHN R. MINAHAN: Mr. President, before they are accepted I want to say a word about Brown and Kewaunee Counties. We have now a membership, I think, of fifty-four. We have never, that I remember, met with the Councilor, and the reason for that was that the members were not interested. There seemed to be something wrong, they were not interested. We are not finding fault with our Councilor in any way whatever but we wish to criticize ourselves. We have an organization here now of just one hundred per cent strong; we have got it all in the last few years. I must say that only a few years ago there was great rumbling as to whether the whole crowd wouldn't quit the State Medical Society. That was the state of affairs that existed. Some of us took hold of it and went after it, and hereafter we will keep our Councilor from Winnebago County just about as busy as any Councilor in the state.

PRESIDENT SLEYSER: A motion is in order to accept the reports of the Councilors.

DR. FIEDLER: I move the acceptance of the reports. The motion was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: All in favor say "aye;" contrary "no." The "ayes" have it.

I note that Dr. Stovall is now present and we will call on him to make his report as Chairman of the Committee on Health and Public Instruction.

DR. W. W. STOVALL (Madison):— Mr. Chairman, the printed report gives about the full report of the Committee. There are several things to which I would like to call your attention. In the first place is the effort on the part of the Committee to have instituted in normal schools courses in biology and hygiene to train teachers in the teaching of these subjects. The Committee has felt that there has been a serious lack in the teaching of these subjects and, therefore, the educational material which has been put out by the Society and other agencies of the state has not exactly gone across because there has been a lack of understanding and appreciation on the part of the people to whom the appeal was made of exactly what was needed and required. We felt that could be best fostered by courses in biology and hygiene and give the people a better understanding of what is done in preventive medicine measures.

The Committee has drawn up a model course to be instituted in normal schools. The Superintendent of Education has been interested in the course and has secured copies of it and made very favorable comments on it. Several presidents of normal schools have also been in touch with it, and I think there is quite a favorable outlook that this course will be instituted in at least some of the normals in the next year. Of course, it will need finances to put this across and will need rearranging of their program, so there is some difficulty in getting the thing across because it upsets completely the routine of their teaching, and when you upset completely the routine of their teaching you are doing quite a big job. I think all of these people are appreciative of what we are trying to do and I am sure some of the normal schools are going to institute this quite soon.

Then in the State Teachers' Association we have made an effort to impress the necessity of teaching of hygiene and preventive medicine measures and as a result of our efforts in that Association there has been established a department of hygiene. In the last two conventions of the State Teachers' Association there has been a separate department of hygiene and on each one of those programs there has been secured a special speaker who spoke in general session to the whole convention. I feel that this has been quite an advance and while all of the teachers, of course, are appreciative of the necessity of the talking and teaching and preaching of hygiene and preventive measures, this brings us down to a very specific plane and gives us cooperation from all of these teachers.

Then the Committee has also requested \$200 for the defraying of expenses in the way of distributing or getting together a collection of manuscripts or speeches, if you want to put it that way, that can be sent out to the various county societies. It has been my experience that the individual members of the county societies have not participated in the public health activity in their own communities and this has resulted very largely in the fact that in a great many instances the medical men have not had a library from which to draw their material for preparing a talk and because of that fact they have neglected to do this work. Now if they have

at their disposal a series of manuscripts which will give them the substance for a talk, we will say, in the high school or before the Kiwanis Club or the Rotarians or what not, the medical men in the various county medical societies would be glad to participate in the promotion of preventive medicine measures in their own districts. To my mind, this is the ideal way to do it because in every district the medical men in the district have the confidence of the people in that district and it is through them that we can best put over the thing which we want to do, and that is the education of the public on the prevention of disease. I believe that I am thoroughly convinced this is the very best way this can be done.

So we have been busy this last year in trying to get together in one volume a number of manuscripts on a variety of subjects, for instance on diets, on the relation of general diets to general health and communicable diseases, the prevention of specific diseases like diphtheria and scarlet fever and what not, and give the latest literature and not only give a prepared article on the subject but give a reference to all the original articles from which the preparation was drawn. So if the man does not desire to use the material supplied him, he can go to the original sources and make up his own talk. I think this ought to be a very valuable service and ought to be used very largely by the various county societies.

The plan that has been provided in the county societies is that these manuscripts be forwarded to the secretary of the county society and that then each county society will appoint each month a man who is to appear during that month at some public function or at some public gathering and give a talk which he will select from this or for himself if he likes, but anyway somebody will be selected from that society to appear before a public gathering and talk on preventive medicine measures, on the education of the public, on medical measures in general. He can talk on any subject he likes. He will have the manuscripts from which to draw his talk if he likes. That has not been consummated, that is to say we haven't all of our manuscripts together. I believe we have promises from quite a few men of manuscripts, Mr. Crownhart?

SECRETARY CROWNHART: Yes, we have, Doctor.

DR. STOVALL: There is one other thing that is not in the report which I would like to suggest. I am very sorry I failed to put it in the report of the Committee. If you will note, this is a report of the Committee on Health and Public Instruction and the Committee on School Hygiene. The activity of these two committees, it seems to me, is almost identical and while in the initial stage the Committee on School Hygiene was necessary and Dr. Dodson, I believe, was very anxious that we have this committee to start with, now that the work has been organized and we have our department of hygiene in the State Teachers' Association, I believe the Committee on School Hygiene can be dispensed with and we can combine all of this activity under the Committee on Health and Public Instruction because the whole thing comes under the Committee on Health and Public Instruction. So that would be my other recommendation which is not included in this report, that

the work which has been carried on by the Committee on School Hygiene be thrown over into the Committee on Health and Public Instruction, if that meets with the approval of the Chair and the delegates. In other words, have the one committee function for the two. I don't see now that there is any urgent necessity for both. At the present time I am Chairman of the Section on Public Health and Hygiene of the State Teachers' Association and this year we are going to have a very good program in that section.

There is one other thing. The State Conference of Social workers met in Green Bay in June and at that meeting we managed to have a very good program which was composed entirely of health problems. We had Dr. Kimball from the Western Reserve University who talked on goiter, and we had other subjects that were based on health matters, and the whole afternoon was taken up in one session of the State Conference of Social Workers in discussion of health matters. That has been the activity of your Committee on Health and Public Instruction for the last year. Thank you.

PRESIDENT SLEYSER: Gentlemen, you have the report of this Committee before you. What is your pleasure?

DR. S. G. HIGGINS (Milwaukee): I move it be referred to the Committee on Resolutions.

DR. F. THOMPSON (Milwaukee): Mr. President, I

think the report is so complete and his suggestions so clear that I would like to have Dr. Higgins withdraw his motion and we adopt his report with the recommendations he proposes.

PRESIDENT SLEYSER: Is Dr. Higgins willing to withdraw his motion?

DR. S. G. HIGGINS: My purpose was to make the acceptance of this report more forceful. I thought if the Committee on Resolutions took it up they could present it and make it more forceful. However, if the delegates prefer to accept it immediately, I will withdraw the motion.

DR. F. THOMPSON: I move the report of Dr. Stovall be accepted with his recommendations as to the change in name and work of the different committees.

The motion was seconded by Dr. Caswell.

PRESIDENT SLEYSER: Is there any discussion? It has been moved and seconded that the report of the Committee with the additional recommendations be accepted as presented. All in favor say "aye;" contrary "no." The 'ayes' have it.

The next order of business is the report of the Treasurer, Dr. Hall of Ripon.

(Dr. Hall read the summaries of his report which follows.)

TREASURER'S REPORT.

GENERAL FUND.

DEBTOR.

Sidney S. Hall, Treasurer, in account with the State Medical Society of Wisconsin.

1923			
Oct.	1—Balance on hand.....	\$11,869.18	\$11,869.18
Nov.	1—J. G. Crownhart, Executive Secretary.....	161.75	
	12—J. G. Crownhart, acc't Dorrflinger Pd. to Wis. A. T. Assn.....	3.50	
Dec.	1—J. G. Crownhart.....	258.75	
	21—J. G. Crownhart, Acc't Annual Meeting.....	430.39	
1924			
Jan.	4—J. G. Crownhart.....	163.25	
Feb.	1—J. G. Crownhart.....	1,940.25	
Mar.	1—J. G. Crownhart.....	3,852.00	
April	3—J. G. Crownhart.....	3,900.00	
	12—Atty. Wylie, Madison, Wis., Acc't Burdick Co.....	85.00	
May	5—J. G. Crownhart.....	1,927.00	
	31—J. G. Crownhart.....	704.00	
June	9—J. G. Crownhart, Gift of Wis. Surg. Assn.....	1,179.37	
July	2—J. G. Crownhart.....	312.50	
	3—J. G. Crownhart, Refund for 3 Telephone calls on acc't. 19.94.....	1.98	14,919.92
	Total	\$26,788.92	\$26,788.92

CREDITOR.

Sidney S. Hall, Treasurer, in account with the State Medical Society of Wisconsin.

1923			
Oct.	9—J. G. Crownhart, Loan for Office.....	\$ 500.00	
	Meyer News Service Co., Sept. Clippings.....	4.50	
	Wis. Telephone Co., Expense Secy.....	8.15	
	Siekert & Baum Sty. Co., Expense Secy.....	8.80	
	Cannon Ptg. Co., 500 cards.....	19.00	
Nov.	1—J. G. Crownhart, Expense Oct.....	27.70	
	J. G. Crownhart, Salary Oct.....	300.00	

	Astrid Jurgens, Salary Oct.....	65.00
	Wis. A. T. Assn., Sept. 30 to Oct. 31st.....	144.00
	Siekert & Baum, Expense Secy.....	5.05
	3—Meyer News Service Co., Oct. Clippings.....	4.50
	7—E. L. Howe Ptg. Co., Stamped Envelopes (Treas.).....	13.50
Dec.	1—J. G. Crownhart, Expense Nov.....	32.59
	J. G. Crownhart, Salary Nov.....	300.00
	Astrid Jurgens, Salary Nov.....	65.00
	Cannon Ptg. Co., Acct. Nov.....	72.00
	Wis. Telephone Co., Expense Secy.....	2.00
	American Medical Assn., Expense Secy.....	2.00
	Andrae Electrical Co., Expense Secy.....	10.50
	5—Siekert & Baum Sty. Co. Expense Secy.....	31.20
	Meyer News Service Co., Clippings.....	4.50
	10—American Medical Assn., "Hygeia," 200 Subs.....	300.00
	18—Astrid Jurgens, Salary December.....	65.00
1924		
Jan.	4—J. G. Crownhart, Salary December.....	300.00
	J. G. Crownhart, Expense December.....	63.24
	Jaek's Letter Service, Expense Secy.....	20.50
	Cannon Ptg. Co., 2,200 Membership Certificates.....	4.50
	Meyer News Service Co., Clippings.....	24.00
Feb.	1—J. G. Crownhart, Salary Jan.....	200.00
	Astrid Jurgens, Salary Jan.....	65.00
	Manette Hopkinson, Acct. Legis. Com.....	18.00
	J. G. Crownhart, Expense Jan.....	49.81
	Gasser-Fox Agency, Madison, Bond, Expense Secy.....	12.50
	Siekert & Baum Sty. Co., Expense Secy.....	11.65
	Jaek's Letter Service, Expense Secy.....	5.00
	5—Transferred to Savings Account.....	1,028.66
	11—American Medical Assn., "Hygeia," 2 subs.....	30.00
	S. S. Hall, Salary.....	100.00
	12—J. G. Crownhart, Council	\$21.58
	Telephone	18.47
	Cannon Ptg. Co., Expense Secy., Legis. Com.....	140.50
	13—Dr. W. E. Fairfield, Expense Program Com.....	8.00
Mar.	1—J. G. Crownhart, Expense Feb.....	19.84
	J. G. Crownhart, Salary Feb.....	234.00
	Astrid Jurgens, Salary Feb.....	75.00
	Manette Hopkinson, Acct. Legis. Com.....	65.00
	Cannon Ptg. Co., 1900 Circulars (Dr. Sleyster).....	48.00
	Meyer News Service Co., Jan. Clippings.....	4.50
	Siekert & Baum Sty. Co., Acct. Feb.....	9.70
	Jaek's Letter Service Co., Expense Secy.....	7.90
	4—Transferred to Savings Account.....	8,278.58
	6—Dr. C. A. Harper, Expense Council.....	6.81
	20—Wis. Telephone Co.....	12.15
	Meyer News Service Co., Feb. Clippings.....	4.50
	24—J. G. Crownhart, Expense Legis. Com.....	85.25
	27—American Medical Assn., "Hygeia," 2 Subs.....	3.00
April	1—J. G. Crownhart, Expense Secy., March.....	49.48
	J. G. Crownhart, Salary March.....	234.00
	Manette Hopkinson, Acct. Legis. Com.....	70.00
	Astrid Jurgens, Salary March.....	75.00
	Cannon Ptg. Co., Expense Secy.....	113.75
	Siekert & Baum Sty. Co., Expense Secy.....	1.60
	Wis. Telephone Co., Expense Secy.....	6.75
	5—American Medical Assn., "Hygeia," 1 sub.....	.75
	J. G. Crownhart, 1,000 Stamped Envelopes.....	20.00
	Meyer News Service Co., Clippings.....	4.50

	7—Cannon Ptg. Co., Expense Secy	12.50	
	8—Dr. Chas. E. Stolz, Refund Dues	9.00	
	11—American Medical Assn., "Hygeia," 2 subs	1.50	
	16—Wis. Med. Journal, Lay Issue	500.00	
	22—Siekert & Baum Sty. Co., Expense Secy	18.60	
	Wis. A. T. Assn., Use Bldg. & Facilities	91.25	
May	1—J. G. Crownhart, Salary April	234.00	
	Manette Hopkinson, Acct. Legis. Com	70.00	
	Astrid Jurgens, Salary April	75.00	
	J. G. Crownhart, Expense April	84.31	
	7—Meyer News Service Co., April Clippings	5.00	
	19—J. G. Crownhart, Travel Expense	50.00	
	24—L. C. Smith Typewriter Co., Repair	15.00	
	28—Astrid Jurgens, Salary May	75.00	
	31—J. G. Crownhart, Salary May	234.00	
	Manette Hopkinson, Acct. Legis. Com	70.00	
	J. G. Crownhart, Expense May	62.07	
	Cannon Ptg. Co., Expense Secy	17.50	
	Wis. A. T. Assn., Bldg. & Facilities	45.00	
	Siekert & Baum Sty. Co., Expense Secy .....	.90	
June	7—Meyer News Service Co., Clippings	4.00	
	Cannon Ptg. Co., Expense Secy	50.00	
	Wis. Telephone Co., Expense Secy	5.44	
	11—Transferred from Savings Account	1,036.48	
	17—American Nat. Bank, Checking Acct. Secy	300.00	
	C. A. Harper, Expense Council	6.76	
	McDermott & Cowen—Reporters	244.30	
	Cannon Ptg. Co., Expense Secy	19.00	
	J. G. Crownhart, Expense May	112.99	
	Manette Hopkinson, Acct. Legis. Com	50.00	
July	2—J. G. Crownhart, Salary June	234.00	
	Astrid Jurgens, Salary June	75.00	
	Siekert & Baum Sty. Co., Expense Secy	2.65	
	3—Hotel Pfister—Lunch Council	34.40	
	American Medical Assn., Acct. Legis. Com	18.68	
	American Medical Assn., Acct. July 1st	3.00	
	Wisconsin Telephone Co., Expense Secy	19.94	
	9—Meyer News Service Co., Clippings	4.50	
	10—Benfey & Benfey, Com. P. P. & L.	25.00	
	 Total	 \$17,453.23	

MEDICAL DEFENSE FUND.

Sidney S. Hall, Treasurer, in account with the State Medical Society of Wisconsin.

DEBTOR.

1923			
Oct.	1—Palance on hand		\$3,077.47
Nov.	1—J. G. Crownhart, Executive Secretary	\$ 14.00	
Dec.	1—J. G. Crownhart, Executive Secretary	48.00	
1924			
Jan.	4—J. G. Crownhart, Executive Secretary	36.00	
Feb.	1—J. G. Crownhart, Executive Secretary	368.00	
Mar.	1—J. G. Crownhart, Executive Secretary	644.00	
April	3—J. G. Crownhart, Executive Secretary	600.00	
May	1—J. G. Crownhart, Executive Secretary	340.00	
	31—J. G. Crownhart, Executive Secretary	128.00	
June	2—J. G. Crownhart, Executive Secretary	43.00	2,226.00
	 Total Dr.	 	 \$5,303.47

CREDITOR.

1924		
Mar. 6—	Lines, Spooner & Quarles, acct. Feb. 5, 1924.....	\$2,556.81
June 19—	Dr. P. J. Noer, Expense, 2 trips to Milwaukee.....	50.00
		\$2,606.81
	Balance on hand Aug. 1, 1924.....	\$2,696.66

SUMMARY.

Oct. 1, 1923—Aug. 1, 1924.

General Fund		
	Total Receipts	\$26,788.92
	Total Expenditures.....	17,453.23
		\$ 9,335.69
Medical Defense Fund		
	Total Receipts	\$ 5,303.47
	Total Expenditures.....	2,606.81
		\$ 2,696.66
	TOTAL BALANCE.....	\$12,032.35

LIST OF SECURITIES.

1924		
May 31—	United States Certificate of Indebtedness, No. 60334.....	\$ 1,000.00
	United States Certificate of Indebtedness, No. 60335.....	1,000.00
	United States Certificate of Indebtedness, No. 60336.....	1,000.00
	United States Certificate of Indebtedness, No. 60337.....	1,000.00
	United States Certificate of Indebtedness, No. 60338.....	1,000.00
	United States Certificate of Indebtedness, No. 60339.....	1,000.00
	United States Certificate of Indebtedness, No. 19502.....	500.00
	United States Certificate of Indebtedness, No. 79524.....	1,000.00
	United States Certificate of Indebtedness, No. 25138.....	500.00
	United States Certificate of Indebtedness, No. 57459.....	1,000.00
	United States Certificate of Indebtedness, No. 25448.....	500.00
June 11—	United States Certificate of Indebtedness, No. 59678.....	1,000.00
	Total	\$10,500.00

Respectfully submitted,
 SIDNEY S. HALL,
Treasurer.

PRESIDENT SLEYSER: Gentlemen, Dr. Hall's report and books have been audited. What is your pleasure?

DR. CUNNINGHAM: I move the acceptance of Dr. Hall's report.

The motion was seconded by Dr. Schmeling.

PRESIDENT SLEYSER: All in favor say "aye;" contrary "no." It is carried.

The next order of business is the report of the Executive Secretary, Mr. Crownhart. I would suggest Mr. Crownhart read his report. I feel the matter incorporated in it is of such importance it should be presented.

REPORT OF THE EXECUTIVE SECRETARY.

To the Members of the 1924 House of Delegates:

SECRETARY CROWNHART: Mr. President and Members of the House: The work of your Executive Secretary-Managing Editor is divided into four fields. The first field is the general secretarial work; the second field of work is connected with the publication of the Journal; the third is that work involved in rendering service to

the members, and the fourth and that which I consider the most important field of work is the lay educational and legislative work.

I. SECRETARIAL WORK.

Now to discuss the secretarial work for a moment, I have a summary of the membership report. On August 16th the Society had a total paid up membership of 1,836. This is some 28 more than we had six weeks later a year ago. It is 92 under the complete total for 1923.

The report shows 100 new members as against 88 removals and deaths. At the present time we have 109 who are in arrears for 1924.

In analyzing the report we find that the first, fourth and sixth Councilor Districts show a gain. Among the county societies Waukesha shows the largest gain with 10 new members, while Door has a gain of 3. Sauk, Grant, Winnebago, Wood and Eau Claire each have a gain of two members, and a gain of one is reported by Marathon, Pierce, Douglas and Price-Taylor.

The following county societies have the same membership now as on December 31, 1924: Iowa, Richland, Calumet, Sheboygan, Outagamie, Rusk and Brown-Kewaunee.

Societies that have a loss but no delinquents include Fond du Lac, La Crosse, Monroe, Marinette-Florence, Green Lake-Waushara-Adams, Portage, Dunn-Pepin, Dodge, Langlade, Clark and Shawano.

I am going to say parenthetically that our report on membership is excellent and that I am confident we are going to have in a sufficient number of those now in arrears so our membership will exceed that of 1923.

The credit for this record belongs to the individual members and the secretaries of the several constituent societies. As a result of this prompt payment of dues, Wisconsin retains her three delegates in the House of Delegates of the American Medical Association.

The membership report by districts and societies follows:

STATE MEDICAL SOCIETY OF WISCONSIN.

MEMBERSHIP REPORT.

August 1, 1924.

County Society	1923		1924		Delinquents	New Members	Removals	Deceased	Honorary
	Oct. 1,	July 21,	Loss—	Gain+					
1st District—									
Dodge	31	29	—2	..	..	1	1	..	..
Jefferson	32	30	—2	3	1	..	..	..	..
Waukesha	45	53	+8	2	11	1	..	..	..
	108	112	+4	5	12	9	1	..	..
2nd District—									
Kenosha	34	33	—1	4	5	2	..	..	..
Racine	53	50	—3	2	1	1	1	..	..
Walworth	29	21	—8	7	..	1	..	..	..
	116	104	—12	13	6	4	1	..	..
3rd District—									
Dane	117	105	—12	17	12	6	..	1	..
Columbia*	23	12	—11	12	1	..	..	..	..
Green	17	15	—2	2	..	..	..	..	..
Rock	80	69	—11	13	3	1	..	..	..
Sauk	25	27	+2	..	5	2	1	..	..
	262	228	—34	44	21	9	1	1	..
4th District—									
Crawford	10	7	—3	1	..	1	1	..	..
Grant	32	34	+2	..	3	1	..	..	..
Iowa	11	11	..	1	1	..	..	..	..
La Fayette	15	12	—3	3	..	..	..	..	..
Richland	8	8	..	1	1	..	..	..	..
	76	72	—4	6	5	2	1	..	..
5th District—									
Calumet	13	13	..	..	..	..	..	..	..
Manitowoc	31	28	—3	2	1	1	1	..	..
Washington-									
Ozaukee	26	22	—4	3	..	1	..	..	..

Sheboygan	44	44	..	4	4	..	..	..	..
	114	107	—7	9	5	2	1	..	..
6th District—									
Brown-									
Kewaunee	53	53	..	..	2	2	..	..	..
Door	4	6	+2	1	3	..	..	..	..
Outagamie	37	37	..	..	..	..	..	..	..
Fond du Lac	45	42	—3	..	1	2	2	..	..
Winnebago	51	53	+2	..	2	..	..	..	..
	190	191	+1	1	8	4	2	..	..
7th District—									
Juneau	10	6	—4	3	..	1	..	..	..
La Crosse	51	49	—2	..	2	2	..	2	..
Monroe	21	19	—2	..	1	3	..	..	..
Trempealeu-J-B.	26	20	—6	2	..	3	1	..	..
Vernon	14	13	—1	1	..	..	..	..	..
	122	107	—15	6	3	9	1	2	..
8th District—									
Marinette-									
Florence	23	22	—1	..	1	1	1	..	..
Oconto	11	8	—3	3	..	..	..	..	..
Shawano	12	10	—2	1	1	1	1	..	..
	46	40	—6	4	2	2	2	..	..
9th District—									
Clark	16	14	—2	1	2	1	2	..	..
Green Lake-									
W-A.	20	18	—2	..	..	1	1	..	..
Lincoln	15	13	—2	2	..	..	..	..	..
Marathon	34	35	+1	..	2	1	..	..	..
Portage	21	20	—1	..	1	1	1	..	..
Waupaea	22	20	—2	2	..	..	..	..	..
Wood	24	26	+2	..	2	..	..	..	..
	152	146	—6	5	7	4	4	..	..
10th District—									
Barron-P-W-									
S-B.	39	38	—1	1	2	2	..	..	..
Chippewa	22	20	—2	3	3	1	1	..	..
Dunn-Pepin	15	13	—2	..	..	2	..	..	..
Eau Claire	43	45	+2	..	6	3	1	..	..
Pierce	5	6	+1	..	1	..	..	..	..
Rusk	10	10	..	..	..	..	..	..	..
St. Croix	14	12	—2	2	..	..	..	..	..
	148	144	—4	6	12	8	2	..	..
11th District—									
Ashland-B-I. ...	27	20	—7	6	..	1	..	..	..
Douglas	37	38	+1	..	1	..	..	..	..
Langlade	13	12	—1	..	..	1	..	..	..
Oneida-F-V. ...	12	8	—4	5	1	..	..	..	..
Price-Taylor ..	13	14	+1	..	3	1	1	..	..
	102	92	—10	11	5	3	1	..	..
12th District—									
Milwaukee	493	470	—23	14	13	9	13	..	..
Grand Totals..	1929	1813	—116	125	99	58	30	3	..

B. *General secretarial work.* Your Secretary has visited the headquarters of the American Medical Association in Chicago on the average of once a month. As a result he has not only received most helpful advice and aid but he has been able to correlate the work in Wisconsin with that of the American Medical Association.

During the year your Secretary has attended two meetings of the Ninth Councilor District Society held at Marshfield and Wisconsin Rapids, a joint meeting of the Grant, Iowa, Crawford, and LaFayette county societies held at Lancaster, and individual meetings of sixteen other county societies, many of which embrace membership in more than one county. The list of such societies is: Columbia, St. Croix, Pierce, Jackson-Buffalo-Trempealeau, LaCrosse, Vernon, Sauk, Rock, Waukesha, Washington-Ozaukee, Brown-Kewaunee, Shawano, Waupaca, Green Lake-Waushara-Adams, Price-Taylor and Dunn-Pepin. At each of these societies he gave an informal talk outlining the fields of work, what had been accomplished, and told of the plans and aims of the State Society. He feels that this work is most important. The members have the opportunity to secure first hand information relative to their Society and the Secretary has the opportunity to meet the members, learn of their needs, their desires and the opportunity to secure their constructive criticisms and suggestions. It is hoped that the remaining societies may be visited at no very late date and time will be devoted to that end, subject only to prior engagements.

An extra meeting of the Council was held in June that was most helpful to the Secretary. He believes the amount of business fully justified the meeting for it is only through action of that body or of the House of Delegates that any important step should be taken that will definitely commit the Society to policies of far-reaching effect.

2. THE JOURNAL.

A detailed report of the financial condition of the Journal is given elsewhere. It may well be said here, however, that the present policy of the Journal appears to be meeting with approval. Eventually it is hoped to see the Journal as a revenue producing activity for the Society. For the present we are trying to produce the very best state medical journal possible within our means. It is the one constant evidence that each member receives as result of his membership in the State Society. We wish to make the Journal worthy of the Society and we promise you a continuation of our efforts to the end that the Journal may be of still greater value and interest.

3. SERVICE TO MEMBERS.

By the field of work designated in this title, your Secretary refers more particularly to such services as make available a direct benefit to the individual member, either along scientific lines, in the business side, or through a financial saving.

Your Secretary does not reiterate that which is listed in each Journal except to emphasize two points. It was found that the member outside the larger medical centers did not have adequate library facilities. Through the Library and Package Library Department of the Uni-

versity of Wisconsin and its Extension Division we have now made their facilities available to every member. They are being used. While we have no data on the exact number of requests, the most recent request was from a member who appears on the program at this meeting. He was shipped four references from Milwaukee four hours after receipt of his letter, additional material was outlined from the University, and three references were shipped from Chicago.

The second service established upon which emphasis is placed is the purely individual work involved in securing various kinds of information to fill individual needs. If we can not supply the information desired from our own records, we secure it elsewhere. The office now answers from one to six requests a day for service of this type. We have given lists of schools for defective children, information about a sanitarium on the Pacific Coast, rulings of the Attorney General and of the Prohibition Commissioner, on medical practice acts in other states, and even given suggestions where an unfortunate patient might be sent.

This is mentioned with the hope that more members will realize that this type of service is available upon request.

We are most interested, however, in accomplishments that will at once affect all or a large portion of our membership. In this connection we are now appealing a permit fee ruling of the prohibition department made before you had a full time Secretary. If we are successful, members of this Society will be saved over \$12,000 annually.

Other projects are under consideration, some of which we are working upon actively. As a result we hope to make this field of endeavor of constantly increasing value to each individual member.

4. LAY EDUCATIONAL WORK.

Your Committee on Public Policy and Legislation formulated the plans for work in this extensive field. When approved by the Council in January they were turned over to your Secretary for execution. Since that time the following major projects have been accomplished:

A. Publication of the First Annual Lay Issue of the Wisconsin Medical Journal. This involved securing the articles, the names of some 5,000 interested laymen and public officials who were the recipients, and the mailing of that number of extra Journals.

B. Presentation before the Conference for Social Work of the need for the requirement of basic education in all fields of the healing art. Over 1200 lay issues, handbooks, and reprints were distributed at this meeting.

C. Publication and distribution of the Speaker's Handbook. This provided members with accurate data upon which public health talks might be based and emphasized the need for an educated profession as the basis for all preventive medicine.

D. Presentation of two hundred and fifty subscriptions to Hygeia with a personal letter in each instance.

E. Establishment of a weekly radio health talk service. This was discontinued in the late spring but will be opened again in the fall from three stations.

F. Distribution of several thousand reprints from *Hygeia*, etc., bearing upon the medical licensure question.

G. Editors of daily papers in this state have been furnished with material bearing upon the subject of quackery and its fraudulent advertising. This work will be continued.

These are mentioned as the major projects undertaken and completed to date. Additional work in this field is being done and recommendations for the future are before you in the report of the Committee on Public Policy and Legislation.

FINANCES.

A. *Surplus.*

Members may well be proud of the present financial condition of their Society. It now appears that the end of the present calendar year will see a surplus of around \$16,000. In this connection I would be negligent did I not mention the generous gift of the Wisconsin Surgical Association, dissolved, amounting to over \$1,100.

It is the belief of your Secretary that no special effort should now be exerted to further enlarge the surplus. Each annual budget should be based upon the usual margin of safety and should see some amount added each year. In addition the interest upon the principal will make a substantial contribution. In time this surplus will reach a sum that will make possible devoting some part of it towards securing a permanent home and library for your Society should that be your future desire.

B. *Dues.*

This raises the question of dues for 1925. From the dues received during this calendar year we will probably save close to \$5,000, included in the surplus as estimated above. The Society now has a decision to make that should be based on careful thought and group opinion. The House may reduce the annual state dues a dollar or possibly two, from nine dollars to eight or seven. On the other hand you may retain the dues at the present figure and extend the lay educational work. Your Secretary does not attempt to advise upon this point. The decision must be that of the House based upon the feeling in each of the constituent societies.

AUTOMOBILE INSURANCE.

After a year's investigation of this subject the situation with respect to automobile insurance is now clear.

A. Physicians, as a class, can not now obtain a preferential rate.

B. No such rate can be secured until a long experience table has been compiled that will justify such reductions.

C. Your Secretary may not act as an agent for the members and thus return to them the agent's commission. This is contrary to the Wisconsin statutes.

D. Your Secretary may not act as an agent and turn such commissions over to the Society. This is also contrary to the Wisconsin statutes.

ONE COURSE OPEN.

There is but one question now before the Society. Indiana and Virginia have officially endorsed a mutual insurance company whose past experience has been such

as to indicate that the annual dividend will be from 25% on liability and theft insurance to 30% on fire insurance. The particular company endorsed has a good financial record.

The question is then, does the State Society desire to grant such an endorsement to a mutual company, after proper investigation by a special committee, for the purpose of calling the attention of the members to the advantages of mutual insurance?

This question is properly before the House for action. It should be clearly understood, however, that if the Society does endorse any such mutual company the members will secure no lower rates in that company than they might obtain in the same company on their individual action.

RECOMMENDATIONS.

Your Secretary has two recommendations to present to the House based largely upon his visits to constituent societies and his contact with the members.

1. That Society seems to thrive best where material for the programs is easily obtainable. Through location, size and financial reasons, there are many societies that have no wealth of program material within their reach. The scientific work of each society is a basic reason for its existence and an attempt should be made to investigate this situation with a view to making additional material available at a minimum cost or no cost.

It is suggested that this House authorize the appointment of a small committee to do what is possible in placing program material within the reach of every society regardless of its size, location or financial condition.

2. The Councilor District Society has the potentiality of exerting a tremendous influence for keeping the members abreast with medical progress and in maintaining the close personal relationships that are so desirable. We have one such society in this state that has had remarkable success—the Ninth Councilor District Society. In a few of the other districts we have societies that are making excellent progress and in the Seventh District a society is to be formed in September.

The individual Councilor can do much, but far less than that which must be accomplished in the formulation and maintenance of a successful district society. Your Secretary suggests that in those districts not now organized, the delegates assembled meet with their Councilor during this meeting to see what may be accomplished in organizing a district society.

IN APPRECIATION.

This has been a lengthy report, made in some detail. Your Secretary feels, however, that his office is and should be but the means for accomplishing the desires of the members. Your Secretary, whomever he may be, should not go further than is absolutely necessary in deciding questions of policy. Such decisions should be reserved for this House and for the Council. He presents this report so that you may be familiar with the work done and thus better able to pass upon the several questions proposed involving the future activities of your Society.

Throughout the past year your Secretary has had the

active support of the secretaries of the county societies, of the several state committees, of each of the Councilors and the officers and membership at large. It is at once a pleasure and a privilege to work under such conditions.

If there is any one thought that I wish to give every member it would be to again express what is true—the State Society is the society of each and every member. It will not be found unresponsive to their wishes, to their criticisms, nor to their suggestions. The success of the Society depends not so much on its officers as it does on each member feeling a pride in his organization; on each member lending his moral support and a helping hand in the Society's activities to protect and promote the welfare of the public, the welfare of all of its members and to assist in the progress of scientific medicine.

Respectfully submitted,

J. G. CROWNHART,

Executive Secretary.

PRESIDENT SLEYSER: Mr. Secretary, as President of the Society, I want to extend to you the thanks of the organization for the splendid work you have done in the last year and during your incumbency in the office. The slogan "Let George do it" has made you almost indispensable to the membership.

Mr. Crownhart is a modest sort of chap. There is one piece of information he didn't give in the Secretary's report and I think it should have been there. Twice during the last year he has refused an appointment as assistant secretary of the American Medical Association at a salary much in advance of what he is getting here. This in order to stay with us. (Applause.) I think we should give him a rising vote of thanks.

The audience arose and applauded.

PRESIDENT SLEYSER: The Secretary's report brings some very important questions up for decision. They seem to me almost too important to attempt to decide on the floor and should be referred to a committee. If it is your pleasure, it can be referred to the committee already appointed or to another committee that can be created for the purpose, one which can report back with recommendations on the various questions he raises in his report. What is your pleasure?

DR. M. J. SANDBORN (Appleton): Mr. President, it seems to me this is important enough for the consideration of a special committee. I, therefore, move a committee of three be appointed by the Chair for this purpose.

The motion was seconded by Dr. Joseph Smith, of Wausau.

PRESIDENT SLEYSER: Is there any discussion? If not, all in favor say "aye;" contrary "no." The Chair will announce the committee before the end of the session.

The next order of business is the election of delegates and alternates to the American Medical Association to succeed Horace M. Brown, Milwaukee, and Rock Sleyster, Wauwatosa, delegates; and W. E. Bannen, La Crosse, and F. Gregory Connell, Oshkosh, alternates. These elections can be made from the floor or referred to the Nominating Committee, just as you choose.

DR. JOSEPH SMITH (Wausau): Mr. Chairman, it has been my privilege to be in the House of Delegates for the last four years and I realize the tremendous importance of having some one in the House of Delegates who has been there long enough to have a working acquaintance in that organization. Necessarily the House of Delegates is a very large machine, it takes some time for a man to become familiar with the method of work. Now the two delegates whose terms expire this year are men who have been honored by positions in the House of Delegates. Their work has been recognized and I think that we should do ourselves the honor of returning these men to the House of Delegates. I therefore, take the privilege of nominating Dr. Rock Sleyster and Dr. Horace Brown to succeed themselves as delegates to the American Medical Association.

The motion was seconded by Dr. John R. Minahan.

SECRETARY CROWNHART: Is there any discussion on the motion? If not, all in favor will signify by saying "aye;" opposed the same sign. The motion is carried.

PRESIDENT SLEYSER: Gentlemen, I wish to thank you in behalf of Dr. Brown and myself. It has meant lots of hard work but we have had a pile of fun out of it, and we hope to continue to render the very best service we can for you in the House of Delegates.

Nomination will be in order for successors of Dr. Bannen and Dr. Connell, alternates.

DR. JOHN R. MINAHAN: Mr. President I move the Secretary be instructed to cast the ballot of the Delegates for Dr. Connell and Dr. Bannen to succeed themselves.

The motion was seconded by Dr. Windesheim.

PRESIDENT SLEYSER: Are there any further nominations? All in favor say "aye;" contrary "no." It is carried.

The next order of business is election of Councilor to succeed Dr. C. A. Harper, of the third District. Dr. Harper is filling the unexpired term of Dr. E. B. Brown, of Beloit.

DR. REDELINGS: Mr. Chairman, it would please me to nominate Dr. C. A. Harper to succeed himself. He is a most worthy man in this work. If he will lend his service to this Society in that capacity, the Society will be indebted to him.

DR. MAUERMANN: Mr. President, I second that nomination.

PRESIDENT SLEYSER: Are there any other nominations? If not, all in favor of Dr. Harper's election say "aye;" contrary "no." It is so ordered.

The next order of business is the election of Councilor to succeed Dr. Wilson Cunningham, of the fourth District.

DR. JOHN R. MINAHAN: Mr. President, I move that Dr. Cunningham be elected to succeed himself.

The motion was seconded by Dr. Redelings.

PRESIDENT SLEYSER: Are there any further nominations? If not, all in favor will say "aye;" contrary the same. Dr. Cunningham is unanimously elected.

The next order of business is the election of a com-

mittee on public policy and legislation. Will the Secretary please name the present committee?

SECRETARY CROWNHART: Mr. President, the Committee was composed during the past year of Dr. Bock, Sheboygan; Dr. Ruhland, Milwaukee (Dr. Ruhland has moved to Syracuse, N. Y.), and Dr. Quick, who is no longer able to devote his time to the work. The President appointed Dr. J. J. McGovern, of Milwaukee, to fill one vacancy, and Dr. G. W. Nott, of Racine, to fill the other.

PRESIDENT SLEYSER: Nominations are in order for this Committee.

DR. O. FIEDLER (Sheboygan): I would like to nominate these men to succeed themselves, Dr. McGovern and Dr. Nott and Dr. Bock.

The motion was seconded by Dr. Kaumheimer, of Milwaukee.

PRESIDENT SLEYSER: Any further nominations? If not, all in favor say "aye;" contrary "no." Their election is ordered.

The next order of business is the election of successors for the present Committee on Medical Education.

SECRETARY CROWNHART: The present committee consists of Dr. Jermain, Milwaukee; Dr. Edward Evans, La Crosse, and Dr. Bardeen, Madison.

PRESIDENT SLEYSER: Gentlemen, what is your pleasure?

DR. REDELINGS: Mr. Chairman, I move that this committee succeed itself. We can't improve it.

The motion was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: Any further nominations? If not, all in favor say "aye;" contrary "no." The committee is elected to succeed itself.

The next order of business is the election of a Committee on Publication.

SECRETARY CROWNHART: The present committee consists of Dr. Lotz, Milwaukee; Dr. Joseph Smith, Wausau, and Dr. Dearholt, Milwaukee.

DR. F. THOMPSON (Milwaukee): Mr. President, I move the present committee be continued for the next year.

The motion was seconded by Dr. Redelings.

PRESIDENT SLEYSER: Any further nominations? If not, all in favor say "aye;" contrary, the same. Carried.

SECRETARY CROWNHART: Mr. President, I want to call the attention of the House to this fact so as to get it before the meeting: the Committee on Publication has submitted proposed amendment to the by-laws. The constitution requires that it lay over for one meeting. Should we have that read at this time, Mr. President?

PRESIDENT SLEYSER: The Chair would rule that is accepted in the Committee's report and will be presented at the next meeting of the House.

Next is election of a delegate to the Council on Health and Public Instruction of the American Medical Association to succeed Dr. G. Windesheim.

DR. JOSEPH SMITH (Wausau): I move Dr. Windesheim be elected to succeed himself.

The motion was seconded by Dr. Fiedler.

PRESIDENT SLEYSER: Any further nominations? If

not, all in favor say "aye;" contrary "no." The "ayes" have it.

The next order of business is the election of a delegate to the Council on Medical Education to succeed Dr. L. F. Jermain, of Milwaukee.

DR. MAUERMANN: Mr. President, I move Dr. Jermain succeed himself.

The motion was seconded by Dr. John R. Minahan.

PRESIDENT SLEYSER: Any further nominations? If not, all in favor say "aye;" contrary "no." The "ayes" have it.

Next is election of a member of the Committee on Health and Public Instruction to succeed Dr. Stovall, of Madison.

DR. F. THOMPSON (Milwaukee): Mr. President, it is a pleasure to offer a motion that Dr. Stovall be continued in the position.

The motion was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: Any further nominations? All in favor say "aye;" contrary "no." Dr. Stovall is reelected.

Next is election of a member of the Committee on Hospitals to succeed Dr. F. S. Wiley, of Fond du Lac. Do I hear any nominations for this?

DR. JOHN R. MINAHAN: Mr. President, I understand Dr. Wiley has been sick, is that true? Is he unable to carry on?

PRESIDENT SLEYSER: Probably Dr. Walters can tell us regarding that.

DR. D. N. WALTERS (Fond du Lac): Dr. Wiley has been unable to do much work for the past few months, but he is around now but hasn't taken an active part.

PRESIDENT SLEYSER: Will the Secretary read the names of the other members on the Committee?

SECRETARY CROWNHART: The Committee on Hospitals consists of Dr. L. F. Jermain, Milwaukee; Dr. L. E. Fazen, Racine, Dr. F. S. Wiley, Fond du Lac, Dr. J. V. R. Lyman, Eau Claire, and Dr. Joseph Lettenberger, Milwaukee.

DR. CUNNINGHAM: Mr. Chairman, I would like to nominate Dr. Buerki, of Madison. Dr. Buerki is connected with the new hospital at Madison and has charge of that work. I think he is devoting all of his time to that line of work, and I think he would fall right in with this office or this appointment. I would recommend him.

The motion was seconded by Dr. F. A. Davis.

DR. F. A. DAVIS (Madison): I would like to add a word further that Dr. Buerki is one of our profession. We haven't many medical men at the head of our hospitals in the state. It seems to me Dr. Buerki's election will be particularly favorable for that reason.

PRESIDENT SLEYSER: Any further nominations? If not, all in favor of Dr. Buerki's election say "aye;" contrary "no." Dr. Buerki is declared elected.

We are now under the head of miscellaneous and new business. The first business listed is the recommendations of the Committee on Public Policy and Legislation.

DR. REDELINGS: Mr. Chairman, under this caption will the House pardon me if I bring the message of Dr. Bird, of Marinette, the very efficient secretary of

our county society? Before leaving he said this to me: "Doctor, I have just learned that the state of Iowa has a law which provides that anybody bringing suit for indemnity is required to put up a bond to cover the cost if the suit is lost."

It would seem to me if this thing is true, if such a law could be incorporated in the statutes of the state of Wisconsin, that it would go a long way towards eliminating malicious malpractice suits, and suits of similar character for indemnity. I am submitting this to this House at this time in the hope that there may be those among you who know specifically with reference to the status of the state of Iowa and that you will offer your opinion with reference to the advisability of such an effort on the part of the Committee on Public Policy and Legislation.

PRESIDENT SLEYSER: Gentlemen, it seems to me the report of this committee is of sufficient importance to refer to a reference committee. In fact I think our constitution could stand some revamping on that point. A great deal of the business that comes before the House of Delegates through its officers and standing committees should be referred to definite reference committees at each session of the House for them to report back at the next session.

DR. FIEDLER: I move, Mr. President, this committee's report be referred to a special committee to report back to this House at the second session.

PRESIDENT SLEYSER: How is the committee to be appointed?

DR. FIEDLER: By the Chair.

The motion was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: Any discussion? If not, all in favor say "aye;" contrary "no." It is so ordered.

Mr. Secretary, what other new business have you on the table?

The proposed amendment submitted by the Publication Committee, I think, is very well referred to one of these other committees, and with your permission I shall do so when I appoint the committees.

SECRETARY CROWNHART: We have a communication which I will read. It is short.

April 24th, 1924.

Dr. Rock Sleyser, President,

The State Medical Society of Wisconsin,

Wauwatosa, Wisconsin.

Dear Doctor Sleyser:

Actuated by the belief that the solution of the numerous technical, ethical, and legal problems arising in the rapidly growing specialty of radiology requires an organization of the physicians of the state devoting their time to X-ray work, and that it would be to the best interests of the radiologists, as well as the medical profession of the state served by them, for this organization to be a part of the State Medical Society of Wisconsin, the Milwaukee County Radiological Society adopted the inclosed resolution, at a recent meeting.

We respectfully ask you to submit this resolution to the members of the House of Delegates of the State Medical Society of Wisconsin, for their consideration.

Fraternally yours,

FRANK W. MACKOY, President,
Milwaukee County Radiological Society.

RESOLUTION ADOPTED BY THE MILWAUKEE
COUNTY RADIOLOGICAL SOCIETY,

APRIL 4th, 1924

WHEREAS, The Science of Radiology has grown to occupy an important place in modern medicine and surgery; and

WHEREAS, The nature of the service rendered by a radiologist is such that he must possess a thorough knowledge of all branches of medicine and surgery; and

WHEREAS, A large number of physicians of Wisconsin are devoting all or the greater part of their time to the practice of radiology; and

WHEREAS, It is the opinion of the members of the Milwaukee County Radiological Society that radiology, as a special branch of medicine, can be developed and maintained on a higher scientific plane through an organization within the State Medical Society; therefore, be it

RESOLVED, First, that the House of Delegates of the State Medical Society of Wisconsin be asked to recognize radiology as an integral part of the practice of medicine and surgery.

RESOLVED, Second, that they create and establish in the State Medical Society of Wisconsin a section on radiology.

FRANK W. MACKOY, M. D., President.

DR. SANDBORN: Mr. President, I move this with other resolutions be referred to the committee appointed on resolutions.

DR. JOHN R. MINAHAN: Mr. President, I second the motion.

PRESIDENT SLEYSER: Is there any discussion? If not, all in favor say "aye;" contrary "no." This will be referred to the reference Committee on Resolutions.

DR. G. J. KAUMHEIMER (Milwaukee): Mr. President, I wish to state that in the city of Milwaukee we have a man who in the early days of radiology took up the work, a druggist. He is considered a very efficient and careful radiologist and has lost one arm through X-ray cancer. I think he is a member of the Radiological Society, but not having a medical diploma would be ineligible as a member of the State Medical Society. He is a pioneer, he is one of the first men to adopt it, his work is approved by a lot of the best surgeons in the city of Milwaukee. We ought to think before we adopt anything which will put such a man outside the pale of radiology.

DR. SANDBORN: Mr. President, I just want to say the standing of that man would not be affected in the least by the adoption of this resolution or by the formation of this section. He is not a member of the State Society at the present time and that would not make him a member and would not change his status in any respect, nor would it affect his membership in the Milwaukee Radiological Society.

PRESIDENT SLEYSER: Gentlemen, you will have an opportunity for discussion of this when the report is brought in by the reference Committee on Resolutions.

The question of dues for next year will have to be decided by the present House. You have heard the Secretary's report on this. I think it would be very

well to hear an expression of opinion from men from the different parts of the state on the question of what the dues should be for the coming year, whether we are to lower the dues and give the members the advantage of that saving of a dollar or two, which can be made, or whether you would be in favor of continuing them at the present status and accumulating a little larger reserve in the treasury and extending the lay educational work.

DR. REDELINGS: Mr. Chairman, all about me I hear this, "Leave them as they are. They are all right as they are. For God's sake let them alone." I, therefore, move that we continue our dues on the present scale for the ensuing year.

The motion was seconded by Dr. Connell.

DR. F. THOMPSON (Milwaukee): I offer just a little disagreement with Dr. Redelings on that. I believe as he does that they should remain as they are, but the discussion you hear in Milwaukee quite often is that some of the younger men feel as if the dues were a little high. I offer that as a recommendation, Doctor.

DR. REDELINGS: Mr. Chairman, I would like to suggest this, if that is true in the great city of Milwaukee where physicians are going good, missionary work is necessary. This is the most cherished thing we possess as physicians. Why quibble about a dollar dues? Who would hesitate to pay \$50 to the Elks or \$25 to the Masons or what not or to your Rotary Clubs and your Kiwanis Clubs and your golf clubs and all kinds of things that are irrelevant. Here is our life and our meat and our bread and our butter, the most cherished thing we have on earth as physicians, so why quibble? I am speaking for Marinette County. Our men are a unit to have the dues continued.

May I take the time right here, Mr. President, to refer to a recommendation which I made before this Society when I was honored with the presidency? I pleaded with you at that time to establish a reserve fund. I still think that was a good suggestion. Our reserve fund should not be \$16,000, it should be \$100,000 or \$160,000 or \$200,000 or half a million and the proceeds used for constructive work along the lines that will serve the profession and humanity. We need not increase our dues above the present status to attain this. All we need to do is mark time and in the due course of time we shall have a reserve.

I call your attention to another fact that has convinced me of the merit of my motion. In 1916 the Tri-State Society, one of the most wide-awake, efficiently serving medical organizations with which I have come in contact—I am not a member; I am so accepted but I have never joined—sent out circulars to us asking that we give \$50 towards a fund they are raising which shall constitute an endowment fund, the proceeds of which will enable them to continue and broaden the wonderful educational work that the organization is doing. The State Society of Wisconsin cannot afford to be outdone by anything in any state in the Union. Let's get together, boys, and push.

DR. KAUMHEIMER: Mr. President, I disagree with Dr. Thompson's implication that it scares many men out.

Of course, Dr. Redelings must remember in a large city expenses are larger and competition is keener.

DR. REDELINGS: And fees are higher.

DR. KAUMHEIMER: And harder to collect. (Laughter.)

I have talked to a great many young men and asked them to join the county society and some of them, I believe, tell the truth when they say they haven't got the money just then. If they kick about the size of the dues (it amounts to \$13 a year in the Milwaukee Medical Society) I say, "If you expect the Society to do something for you, you have to provide some money for them to do it with. If you expect medical defense, if you expect us to go to the legislature and fight the quacks, we have to have money to do it with and you have to chip in your share." I believe the dues are about what they ought to be.

DR. REDELINGS: Mr. Chairman, I do not wish to monopolize your time, but I cannot refrain from replying to Dr. Kaumheimer's apology for the young man. That same young man will buy a \$5 ticket to go to a prize fight and never bat an eye. I know it.

DR. KAUMHEIMER: I am not apologizing for him.

DR. JOHN R. MINAHAN: Mr. President, I don't know whether this Society will ever attain the promise and cohesion of the bricklayers' union. The bricklayer pays \$15 a year dues and he gets \$15 worth of benefit out of it. If we don't get quite up to the bricklayers, I would like to get as close to them as we can. (Applause.)

DR. REDELINGS: Mr. Chairman, when I was on my feet I forgot this point which I simply want to put over. The Doctor said we must go to Madison and fight the cults and the quacks—

DR. KAUMHEIMER (interrupting): They chip in \$25 a piece.

DR. REDELINGS: Don't let's do anything of the kind, let's go to Madison and plead the people's cause, that is what we want to do. If we put it over right, we will carry our point. If you go to fighting the cults, you will get licked if you don't look out.

DR. A. F. SCHMELING (Columbus): Mr. President, I fully agree with what Dr. Redelings has said in regard to the dues. I live in a county where we aren't exceedingly rich but I haven't heard a single man complain of the size of the dues, not a single man. I believe you should leave the dues where they are or even raise them. We should have a fund as well as the Tri-State Society. The proceeds from such a fund would be valuable for our own operating.

DR. R. B. ROGERS (Neenah): I have a letter here from the secretary of our society that the delegates to the state meeting at Green Bay be instructed to vote for continuance of the present state dues, namely, \$9 a year. "Trusting the above resolution to be self-explanatory, I remain, respectfully, R. H. Bitters, Secretary of Winnebago County." (Applause.)

DR. MAUERMANN: Mr. President, during the past year as I sent out the statements for the dues one of them happened to be for a member near my office, one of the oldest practitioners in the county. He said, "How much longer are they going to keep the dues up where a person can't reach them?" He didn't think

anything of buying a membership in the country club and buying an outfit for golf. I asked him how much more the golf clubs cost him than the dues. "None of your damn business."

PRESIDENT SLEYSER: I think this is bringing out the sentiment throughout the state. I would like to hear from other delegates.

DR. D. L. DAWSON (Rice Lake): I can't speak as eloquently as some of the other gentlemen.

PRESIDENT SLEYSER: Your work at Rice Lake speaks eloquently if you can't.

DR. D. L. DAWSON: We haven't had a delegate at a state meeting in ten years to my knowledge. They are expecting me to be here and I have to get my name on paper. Two years ago, I believe, when the dues were raised one of the gentlemen who has been the most responsible for the life of our society threw up both hands and buried the society before the notices were sent out. I think that the report from our society shows a delinquency of one. There is one delinquent and there is one man that came back into the society who remained out for a period of years. There has been very, very little complaint about those dues and I think myself, if we, as physicians, can't afford \$9 to support the State Society when the quacks pay \$25, admitting they get theirs in advance where we would never get ours, we had better dissolve the State Society.

DR. EDWARD EVANS: I would like to say, Mr. Chairman, the two county medical societies in my district I have had the pleasure of meeting within the past year have both unanimously said the fee should not be lowered.

PRESIDENT SLEYSER: Dr. Fiedler, how do they feel in Sheboygan County?

DR. FIEDLER: I think they are all favorable to these dues. I have heard no objections at all. I think they feel they are getting their money's worth. I am wondering as a point of order whether after this matter is referred to a committee this discussion is for the information of the committee or to settle the problem before it goes to the committee.

PRESIDENT SLEYSER: This would be referred to the reference committee, Mr. Crownhart, as part of your report, but I think the discussion that has been brought out will be very helpful to the committee. Are there any others who wish to speak on it?

DR. DEARHOLT: Mr. Chairman, I want to support Dr. Redelings' proposition that the dues should not be lowered. I, however, am unwilling to have it appear that I, for one, subscribe to the idea that a large endowment should be built up for this Society. Personally, I have never been able to see why one generation should feel that it was obligated to provide wisely for the coming generation. I believe the physicians of the state of Wisconsin who are going to succeed us are going to be better able to run a medical society than we have been able to do in the past and are able to do at the present time. I think the sentiment around the state, which has been made so manifest here, that the members are willing to pay the increased dues has been because most of those members have felt they have been receiving more through the Journal and elsewhere than they have

hitherto. I think, therefore, that what we who are responsible for conducting the affairs of the Society should do at the present time is spend as wisely as we can our current funds when we have them and trust to the future to provide those funds.

My word, it seems to me an affront to the doctors of the future to think we have to set up \$100,000 or half a million dollars to carry their burdens for them. I am satisfied they are going to be able to do it very much better than we. I say keep the dues up if we need this amount, but then spend them intelligently and profitably for the physicians of this generation. Let the future take care of itself.

DR. JOSEPH SMITH (Wausau): In our district when the dues were first raised I think there was a little complaint and grumbling, but as soon as we got over to them the idea as to what we were undertaking to do there was no complaint. We were fortunate in having Mr. Crownhart come up and attend one or two of our district meetings and since the men in the district have come to understand what the Society is doing with the money, they are perfectly willing to pay the increased dues, and I think they prefer to keep on doing it. I think that reaction is typical throughout the state. Our immediate problem is to get over to the men what we are trying to do so they will know what is being done with their money.

DR. REDELINGS: Mr. President, may I be permitted one word? I wish to say in reply to Dr. Dearholt that I am in full accord with what he says. Just a remark of that kind queered that movement eight years ago. It was made by Dr. Warfield with good intention. What he says is absolutely true and correct; if that entailed on our part a sacrifice, why it is humiliating, positively humiliating to have anybody insinuate that there is anything wrong with this Society exacting a \$9 dues from an individual and then giving him all the privileges and protection and possibilities that are before him under the activities of this wonderful organization. I named large sums, I didn't have them in mind, only in a very remote way. I still feel that an endowment is a very gracious legacy to the future generation and will not offend them. They will enlarge it and do better work than we are doing and they should, and if they do not, there is cause for shame.

PRESIDENT SLEYSER: Is there any further discussion?

DR. J. C. WRIGHT (Antigo): Mr. President, Langlade County is one of the youngest counties in the state and I presume we have had as much hardship in locating and getting barns and creameries, etc., started as any place in the state. I have been secretary there for sixteen years, and I think that really the dues since they have been raised to \$9 are easier to collect than when they were \$4 some years ago. When there is so much to be done, so much education that is needed, not only in the medical profession but in the communities where we live, it requires money to get such education to them. I believe we are doing the state a great benefit if we keep the dues where they are. (Applause.)

DR. LOTZ: Mr. President, may I say one word?

Somebody said something about getting their money's worth out of the State Society. May I call your attention to the fact that you as delegates and members of the Society should not fail to visit these splendid exhibits of the office of the State Society in the exhibit room. It will give you some idea of what they are getting for their money. Mr. Crownhart simply touched the high spots in his report. All should make it their business to go to the exhibit and see what they are getting for their money.

PRESIDENT SLEYSER: Any further discussion? If not, we are still under the heading of miscellaneous and new business. Is there any new business to be brought before the House?

SECRETARY CROWNHART: If there is a delegate who has not filled out a slip, I would like to have his attendance recorded if he will come forward after the meeting adjourns.

PRESIDENT SLEYSER: I also request you all to attend to your banquet tickets as early as you can. We want to know how many to figure on.

The next meeting of the House of Delegates will be called to order at seven-thirty promptly tomorrow night in the room adjoining this to the right; as the general smoker and general meeting opens at eight-fifteen, I am going to ask you to be very prompt in your attendance. The scientific session meets at nine o'clock in the morning.

The Committee on Nominations as elected tonight consists of Dr. Caswell, Dr. Keech, Dr. Munn, Dr. McDowell, Dr. Fiedler, Dr. Huff, Dr. Jegi, Dr. Nadeau, Dr. Joseph Smith, Dr. Butler, Dr. Dodd and Dr. Blumenthal.

I would suggest that Committee meet tomorrow morning at eight-fifteen sharp so as to cover their business and be able to get out to the pavilion for the opening meeting.

I shall appoint as the Committee on Resolutions—Dr. Jegi, of Galesville, Chairman; Dr. Thompson, of Milwaukee, and Dr. Doege, of Marshfield. I would suggest they meet in this room after the meeting.

I will appoint as the Committee on the Secretary's report—Dr. Fiedler, Chairman; Dr. Davis, of Madison, and Dr. Schmeling.

I will appoint as the Reference Committee on the report of the Committee on Public Policy and Legislation—Dr. Seelman, of Milwaukee, Chairman; Dr. Walters, of Fond du Lac, and Dr. Sandborn, of Appleton.

Gentlemen, a motion to adjourn is in order.

DR. R. W. BLUMENTHAL (Milwaukee): I move we adjourn.

The motion was seconded by Dr. Cunningham, and carried. Adjournment at ten-thirty o'clock.

ADJOURNMENT.

WEDNESDAY EVENING SESSION.

August 20, 1924.

The second meeting of the House of Delegates was called to order by President Sleyser at seven-fifty o'clock in the Northland Hotel, Green Bay, Wis.

PRESIDENT SLEYSER: The House of Delegates will please come to order.

The first order of business is the roll call, Mr. Secretary.

SECRETARY CROWNHART: The roll is being taken by slip, Mr. President.

PRESIDENT SLEYSER: The next order of business will be the report of the reference Committee on Resolutions. Dr. Thompson, have you that report?

DR. F. A. THOMPSON: The Committee on Resolutions respectfully submit the following:

"Believing that the rapidly growing specialty of radiology requires an organization of the physicians of the state who are devoting their time to X-ray work; and,

"Recognizing the numerous technical, legal and ethical problems which do and will constantly arise, the House of Delegates of the Wisconsin State Medical Society hereby creates a Section to be known as a Section of Radiology.

"Whereas, the Milwaukee County Radiological Society, an organization which is already in existence, has applied for membership and recognition in the State Medical Society; be it

"Resolved, that they be empowered to organize the Section thus created."

I move the adoption of this section of my report marked No. 1.

The motion was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: Gentlemen, the section of the report which involves the creation of a section of radiology is before you. Is there any discussion? If not, all in favor say "aye;" contrary "no." That section is adopted.

DR. F. A. THOMPSON: The two following resolutions are printed in the hand book for the delegates. I have modified them so as to fit the House of Delegates of the Wisconsin State Society.

"As a resolution of like tenor has been presented to the American Medical Association, the following resolution is presented for your action:

"Whereas, the use of alcohol in medicine by physicians is limited, regardless of the condition of the patient, by the National Prohibition Act; and,

"Whereas, the confidential relations maintained between the physician and his patients are violated by the said National Prohibition Act; and,

"Whereas, the interests of the patient and the success of the physician require that such medical alcoholic liquor as prescribed in the treatment of disease be of known purity and alcoholic content; and,

"Whereas, this can be accomplished only by the marketing of bottled and bond alcohol for medicinal purposes in containers suitable for dispensing, unopened, by the pharmacists in such sizes as will meet the patient's needs; be it

"Resolved, that the House of Delegates of the Wisconsin State Medical Society expresses its disapproval of these portions of the National Prohibition Acts which interfere with the proper relation between the physician and his patient in prescribing alcohol medicinally;

"Resolved, that the House of Delegates of the Wisconsin State Medical Society request the Board of Trustees of the American Medical Association to use its best

endeavor to have repealed such sections of the National Prohibition Acts as are in conflict with the above resolution and also to use their best endeavor to have the Commissioner of Internal Revenue, the Prohibition Commissioner and the Prohibition Director of the State of Wisconsin issue revised instructions on the use and the prescribing of alcoholic liquors for medicinal purposes by physicians."

I move its adoption.

DR. SEELMAN: I don't like the gist of that resolution. What is its object?

DR. F. A. THOMPSON: There is really only one paragraph in here that means very much. This is a resolution which was adopted by the American Medical Association. "Resolved, that the House of Delegates of the Wisconsin State Medical Society expresses its disapproval of those portions of the National Prohibition Acts which interfere with the proper relation between the physician and his patient in prescribing alcohol medicinally."

DR. SEELMAN: There is another section in regard to the size of the sealed containers in which it is to be dispensed.

DR. F. A. THOMPSON: "This can be accomplished only by the marketing of bottled and bond alcohol for medicinal purposes in containers suitable for dispensing, unopened, by the pharmacists in such sizes as will meet the patient's needs."

DR. SEELMAN: I wasn't present at the meeting of the House of Delegates of the American Medical Association but my impression was the resolution passed there referred principally to the limitation of the number of prescriptions which a physician may issue in a given time limit. Isn't that true?

PRESIDENT SLEYSER: Dr. Woodward can explain what the resolution was.

DR. W. C. WOODWARD (Chicago, Ill.): I think it is covered in the resolution.

DR. SEELMAN: Furthermore, it seems to me if the House of Delegates of the American Medical Association has already passed resolutions in regard to these matters, it would be futile for us at the present time to pass a resolution of our own.

PRESIDENT SLEYSER: This is for the support of the Board of Trustees in any effort they make.

DR. SEELMAN: I move this resolution be not adopted. The motion was seconded by Dr. Redelings.

PRESIDENT SLEYSER: Dr. Woodward, have you anything to say on this? Dr. Woodward is in charge of the legal work for the American Medical Association and he knows whether this will be helpful to them or not and we would be very glad to hear from him.

DR. WOODWARD: Mr. Chairman and Gentlemen: I think the adoption of a resolution by this organization supporting the resolution that was adopted by the American Medical Association will have peculiar weight with the senators and the representatives from the state of Wisconsin if the matter comes to a vote. I believe that your senators and representatives are very much more apt to pay attention to a resolution adopted by his own state society than one by the national organi-

zation. That is the reason I think it would be well to support it.

If the resolution does not meet with the favor of those present, I would suggest the more tactful thing to do would be to postpone consideration indefinitely rather than pass it that way. There are three elements that were involved in the resolution adopted by the American Medical Association; first, the question of confidentiality. There is a strong objection that the physician state on the stub he turns into the government office the disease from which his patient is suffering. Second, there is the objection to limitation of the number of prescriptions and to the hard and fast limitation on the amount that may be prescribed within a given period. Third, they object to the lack of confidence which the doctors and patients now have in the purity of what they get, that has reference to the bottled in bond proposition.

So it is a question of whether this organization wants to stand for those three things, confidence between the patient and physician, allowing some discretion to the prescribing physician, and the securing of purity of the liquor by means of bottled in bond packages.

DR. SEELMAN: Mr. Chairman, my objections to the resolution as read are these: In the first place, the packages are dispensed in bonded packages so we can't gain anything on those lines. This resolution contained nothing, at least I heard nothing in the resolution pertaining to the limitation of prescriptions. I think that should be incorporated. I can't see what we can gain by including a section in that resolution providing for expression of opinion of this House of Delegates that we think liquor should be dispensed in bonded packages because that is being done now. The only impression this could give is that you aren't satisfied with the size of the packages. I don't see what we can gain by that.

I do believe the section should be incorporated or included which expresses a disapproval of this House of Delegates of the limitation of the number of prescriptions which a physician is privileged to write in a given time. If that were included, I should think the resolution should be passed. I understand that section was included in the resolution of the House of Delegates of the American Medical Association, wasn't it, Doctor?

DR. WOODWARD: It was to the best of my recollection. If bottled in bond half pints or four ounces are available in Wisconsin, I think the experience here is different from that in other states. I do not believe ordinarily you can get less than a pint.

DR. KAUMHEIMER: Some run eight ounce packages bottled in bond. They are put up two in a carton.

DR. F. A. THOMPSON: Dr. Seelman, may I read this over?

"That the House of Delegates of the Wisconsin State Medical Society expresses its disapproval of those portions of the National Prohibition Acts which interfere with the proper relation between the physician and his patient in prescribing alcohol medicinally." Doesn't that cover your point?

DR. SEELMAN: I think it would be better if it was specially stated. I think that is what the physician objects to. If Congress can dictate to the physician how

much he can prescribe of alcohol, it would make it possible for them to prescribe how much you can prescribe of morphine.

DR. KAUCHEIMER: They have done that already. They have limited the sale and prescription of heroin.

DR. REBELINGS: Mr. Chairman, if it will expedite matters, I will withdraw my second.

PRESIDENT SLEYSER: Dr. Seelman, that leaves your motion and Dr. Thompson's motion both unseconded.

Dr. Fiedler, of Sheboygan, seconded Dr. Thompson's motion.

PRESIDENT SLEYSER: Moved and seconded the report be accepted. Is there any discussion?

DR. REBELINGS: Mr. President, my great concern is this, that this organization does not lend itself in support of the weakling in the profession who is misusing the trust which the government has placed in his hands. Having that in mind, I spontaneously seconded the motion to refuse the adoption of this resolution. This great organization of the cream of the state of Wisconsin must not in any way lend itself in support of the violation of the 18th Amendment to the Constitution of the United States under the modifications and such laws as have been imposed by Congress. That is the feeling which I hold in the matter. There is no place for whiskey in the sick room; the other fellow gets it.

DR. JOHN R. MINAHAN: Mr. President, I have made a little study of the whiskey question in prescribing it in our town, and the doctors that prescribe it the most will honestly admit that ninety-eight per cent of what they prescribe is illegitimate. Now if that is true, and I think they are sincere in what they say, if ninety-eight per cent of us or ninety-eight per cent of what we are doing is absolutely wrong and against the Constitution of our country, we as men should I think stand up a little straighter and not give them any more leeway. If we have ninety-eight per cent of the whiskey we can use it legitimately if necessary. (Applause.)

PRESIDENT SLEYSER: Dr. Minahan, I might say in explanation I don't think this resolution as passed by the House of Delegates of the American Medical Association or as presented to this House bears any relation whatever to the question of whether it is proper to prescribe alcoholics. This resolution as it is framed is a protest against bureaucracy and governmental interferences in the practice of medicine. It is either right or wrong to prescribe alcoholics in disease. The Prohibition Department has ruled it is right and has given physicians the privilege to do so. It is just as fair for the government to limit the amount of Aspirin you can prescribe or the amount of nux vomica as to limit the amount of whiskey. It is a protest against governmental regulation of medicinal practice. I am just offering this as a word in explanation.

DR. F. A. THOMPSON: As I studied this over, Mr. President, it seemed to me your view of this is about what this resolution means.

PRESIDENT SLEYSER: It has been moved and seconded this resolution be adopted. All in favor say "aye;" contrary "no." The Chair is in doubt. I call

for a rising vote. All in favor rise (17 members arose). All opposed rise (8 members rose). The 'ayes' have it and the section is adopted.

DR. F. A. THOMPSON: "Whereas, many problems and questions of ethics and propriety concerning institutional publicity are constantly arising; and,

"Whereas, there is no definite published guide available to the directors and officials of medical institutions; and,

"Whereas, there is a widespread need for such guidance; therefore, be it

"Resolved, by the delegates of the Wisconsin State Medical Society:

"1. Publicity by clinics, hospitals, sanatoriums and other semi-public medical institutions as to quality of work done implies unusual and exceptional ability and efficiency on the part of the professional staffs and therefore is advertising of the medical men concerned. This unethical.

"2. Publicity by any such institution stating or implying that by reason of its exceptionally fine equipment and material resources it is able to, or does give the public better medical service than similar institutions are able or willing to render, is advertising for the purposes of self-aggrandizement. Statements of this type, frequently exaggerated and misleading, are detrimental to the best interests of the public, of the institutions concerned, and of true medical progress. Publicity of this kind is unethical.

"3. Hospitals, sanatoriums and other similar public medical institutions must raise funds both for capital investment and running expenses from an interested public. Furnishing to the public facts concerning such an institution, its work, its aims and its ideals is legitimate and desirable. Such publicity deals with facts to which the public is entitled and in which it is interested, and is therefore ethical, provided it carefully refrains from any comparisons, either direct or implied:

"Therefore Be It Resolved, that the proper officers of the Wisconsin Medical Society be instructed to seek the approval of the American Hospital Association of these ethical standards."

I move the adoption of that section of the report.

The motion was seconded by Dr. Kaunheimer.

PRESIDENT SLEYSER: Is there any discussion? If not, all in favor say "aye;" contrary "no." Carried.

DR. F. A. THOMPSON: "In conformance with the request given in the report of delegates to the American Medical Association, which in turn was referred to this committee for consideration, we offer the following resolutions:

"WHEREAS, There has lately been an enormous increase in the use of cosmetics; and,

"WHEREAS, Many of the cosmetics contain chemicals irritating and even dangerous to the human organism; and,

"WHEREAS, The dye paraphenyldiamin has so often resulted in serious and even dangerous irritation when employed in furs and on human hair; be it

"RESOLVED, That the Wisconsin Medical Society urgently recommend to the favorable attention of the American Medical Association that they foster legislation placing cosmetic preparations under the Food and Drug Acts, and especially requiring the placing of the names of all poisonous ingredients on the labels;

"That they foster legislation prohibiting the use of the most harmful types of ingredients in cosmetics, and that they foster legislation to prohibit the use of paraphenylenediamin as a dye for hair and fur, and that this Society requests the Council on Legislation of the American Medical Association to urge laws with criminal liability to enforce a recognition of these demands."

I move the adoption of this resolution.

The motion was seconded by Dr. Bock.

PRESIDENT SLEYSER: Is there any discussion? If not, all in favor say "aye;" contrary "no." The "ayes" have it.

DR. F. A. THOMPSON: I move the adoption of the report of the Committee on Resolutions as a whole.

The motion was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: Any discussion?

DR. JOSEPH SMITH (Wausau): Before that is adopted, I think there is another section on page 35 of the hand book relating to the alcohol question that should have been read in this connection. It answers the objection of most of the gentlemen made to the resolution we have already passed. It is in the middle of page 35, addenda No. 3.

Dr. Thompson read addenda No. 3 on page 35.

PRESIDENT SLEYSER: Is the committee willing to accept that and incorporate it as a part of their report?

DR. F. A. THOMPSON: I can't act for the whole committee.

PRESIDENT SLEYSER: Who else is here?

DR. F. A. THOMPSON: Dr. Doege and Dr. Jegi.

PRESIDENT SLEYSER: Dr. Doege, are you willing to accept that?

DR. DOEGE: Yes.

PRESIDENT SLEYSER: Are you willing to move its adoption, Dr. Thompson?

DR. F. A. THOMPSON: Personally, I am not in favor of it.

DR. JOHN R. MINAHAN: I wouldn't like to see this go on record exactly that we have to discipline all our members about breaking the law in prescribing whiskey, it would cut down our membership too much. I don't know how many would be left in Green Bay, but not enough to carry on our society. (Laughter.) It is a serious matter.

DR. JOSEPH SMITH (Wausau): Mr. Chairman, that doesn't say you shall discipline or expel them from the Society. It says make the best endeavor to discipline physicians who either negligently or wilfully prescribe.

PRESIDENT SLEYSER: I might say the State Medical Society has twice passed such resolutions.

DR. KAUMHEIMER: Has the last resolution been adopted?

PRESIDENT SLEYSER: No, not the last resolution, it isn't part of the report of the Committee. That can be taken up later. At present we are acting on the report of the Committee.

Is there any further discussion on the report of the Committee? If not, all in favor of its adoption as a whole say "aye;" contrary "no." The "ayes" have it.

We will next call on the reference Committee on Report of the Secretary and other matters referred to it. Dr. Fiedler is chairman, I believe.

DR. FIEDLER: These resolutions cover the report of the Cancer Committee, the Committee on Health and Public Instruction and Child Hygiene and the Secretary's report and other matters referred to it by the President.

Pursuant of recommendations of the Committee on Health and Public Instruction and the Committee on School Hygiene as submitted by Dr. Stovall, your Committee submits the following resolution:

"BE IT RESOLVED, That the duties and the work of the Committee on Health and Public Instruction and the Committee on School Hygiene shall be and they are hereby delegated to a single committee to be known as the Committee on Health and Public Instruction which shall hereafter perform the functions of these two committees."

I move the adoption of the resolution.

The motion was seconded by Dr. Bock.

PRESIDENT SLEYSER: Any discussion? If not, all in favor of its adoption say "aye;" contrary "no." The section is adopted.

DR. FIEDLER: The report of this committee further recommended that its work in behalf of the county societies in their relation to health and education of the public in preventive medicine shall be augmented and facilitated by submitting to the component county societies of the state organization material or manuscripts which can be used for an educational campaign and health matters.

In conformity with this recommendation, we submit the following:

"RESOLVED, By the State Medical Society in convention assembled that there shall be and there is hereby appropriated from the general funds of the Society a sum of \$300 to be used by the Committee on Health and Public Instruction to furnish to the secretaries of the county societies manuscripts, material and speakers where needed to secure a public address or addresses on the subject matter the work of this committee."

I move the adoption of this resolution.

The motion was seconded by Dr. Butler.

PRESIDENT SLEYSER: Is there any discussion?

DR. WINDESHEIM: If I understood the Secretary last night, \$300 would not be enough. I think it ought to be amended to \$500.

The amendment was seconded by Dr. Kaumheimer.

DR. STOVALL: I don't know if the Committee on Resolutions mean to say this amount shall cover the amount for distribution of the Crusader, which the Committee would like very much. Does it mean that?

PRESIDENT SLEYSER: No.

DR. STOVALL: Three hundred dollars will cover this.

DR. SEELMAN: Mr. Chairman, before that is put, I would like to know just what class of people the Crusader is sent to. What is your mailing list?

PRESIDENT SLEYSER: That comes under a different head in this report.

DR. SEELMAN: I thought this was the section on the Crusader.

DR. STOVALL: That is just what I was asking about.

PRESIDENT SLEYSER: Any further discussion? If not, all in favor of an appropriation of \$300 to this purpose, say "aye;" contrary "no." The "ayes" have it and it is adopted.

DR. FIEDLER: Report of Cancer Committee. Recognizing that with our present knowledge of cancer the hope of those afflicted with this dread disease lies in a knowledge on the part of the physician which enables him to make an early diagnosis and on the part of the patient of the danger signs and symptoms. In our fight against this scourge, we submit the following resolution:

"RESOLVED, By the State Medical Society in convention assembled that there shall be and there is hereby appropriated from the general fund a sum of \$500 to be used by this committee in the purchase and distribution to every member of the Society the little hand book for the profession entitled 'Essential Facts About Cancer;' and, be it further

"RESOLVED, That a sum not to exceed \$75 shall be and is hereby appropriated to this committee for the purpose of securing and distributing pamphlets and literature to the following classes of the laity, viz., clergymen, dentists, nurses, welfare workers and teachers, which shall encourage them to earlier seek medical advice for conditions that might be malignant."

I move the adoption of this resolution.

The motion was seconded by Dr. Schmeling.

PRESIDENT SLEYSER: Any discussion? If not, all in favor say "aye;" contrary "no." The "ayes" have it and the section is adopted.

DR. FIEDLER: Secretary's report. Recognizing that the Society thrives best which has the most helpful and instructive material and personnel for its programs in county and district organization, we submit the following resolution:

"RESOLVE, That there shall be and there is hereby appropriated from the general funds to the budget of the Secretary's office the sum of \$300 to be used to furnish to the secretaries of the county societies and to the district councilors suggestions, material, manuscript and speakers for the programs of the meeting of the respective societies. The Secretary is hereby directed to proceed to collect and prepare for distribution such material and secure such personnel so as to make it available to the unit organizations and district meetings in the state for the year 1925."

I move the adoption of this resolution.

The motion was seconded by Dr. F. A. Thompson.

PRESIDENT SLEYSER: Any discussion? If not, all in favor say "aye;" contrary "no." The "ayes" have it and the section is adopted.

DR. FIEDLER: The Secretary feels and your committee is in accord that at present most of the district organizations are not properly functioning.

The Committee urges that the best papers presented to the county societies be selected and presented at the district conferences and that the best papers of the dis-

trict conference shall be submitted to the program committee of the State Society for their consideration. We, therefore, submit the following:

"BE IT RESOLVED, By the State Medical Society that the district councilors are hereby directed to organize their respective districts and secure at least one district conference during the year to the end of securing a better acquaintance of the members of the component societies, crystallization of interest and action on publicity and legislative programs, and as a clearing house for the scientific papers of the programs of the county societies; be it further

"RESOLVED, That hereafter in the election of councilors the nominations for such office shall be by delegates from the county societies comprising the district and not from the floor of the House of Delegates, this to the end of receiving that physician in each district most acceptable to his constituency."

I move the adoption of this resolution.

The motion was seconded by Dr. Bock.

PRESIDENT SLEYSER: Is there any discussion?

DR. JOSEPH SMITH (Wausau): Will that require an amendment of the Constitution?

DR. FIEDLER: I think not.

PRESIDENT SLEYSER: The Constitution provides the House shall elect a Nominating Committee.

DR. FIEDLER: I withdraw then that part of the resolution appertaining to the nomination of district councilors and move the adoption of the rest of it.

The motion was seconded by Dr. Bock.

DR. KAUMHEIMER: Mr. President, I don't quite understand that resolution, I would like to have it read again.

DR. REDELINGS: Mr. Chairman, before that is read again I would like to say that we should give very close ear to it, it seems to me it is getting down to brass tacks. I think that the members constituting any district should have a voice in the choice of the men whom they would like to have represent them in the Council. We have been perpetuating councilorships and not asking a very close accounting, at least that pertains to my personal experience, and I take it that I have not been sorely neglected in that Council and I haven't any idea whether I am acceptable to the men of the district or whether they have somebody they would very much prefer to send down. An expression from the district would be invaluable to the House of Delegates in constituting its councilor force, which is the hub of the whole Society.

PRESIDENT SLEYSER: That is quite impossible unless you have an active district society and we have only two districts that have active district societies.

DR. REDELINGS: Mr. Chairman, this ground has been covered repeatedly and in former sessions we have concluded that it would be unwise to multiply our societies. My district is tributary to the Fox River Valley Medical Society which is a commendable, wide-awake, efficient, delightful organization. It has deteriorated to this extent: originally it held four meetings a year; in recent years it has conducted only one meeting but a meeting eminently worth while. It was found impracticable in the Fox River Valley to try to organize and

maintain district societies conflicting with this prior organization which has had an existence for seven or eight years; if the Fox River Valley Medical Society refused to vote itself a district society of the State Society and to conform to the requirements of the Constitution prior to this revision, the State Society could adopt the Fox River Valley Medical Society as a district society.

Now before you take action on this resolution, think well whether the several districts can easily and readily and properly and efficiently maintain that district society without coming in conflict with better and stronger and well organized and perfectly moving medical societies already in existence. I am not antagonistic to the district society, but after twenty odd years of close association with the evolution and development of this State Society, I am convinced that the multiplicity of societies will not tend to strengthen us but it will weaken us.

DR. FIEDLER: May I speak on the subject? This resolution is drawn according to the recommendation of your Secretary, which reads as follows: "The Councilor District Society has the potentiality of exerting a tremendous influence for keeping the members abreast with medical progress and in maintaining the close personal relationships that are so desirable. We have one such society in this state that has had remarkable success—the Ninth Councilor District Society. In a few of the other districts we have societies that are making excellent progress and in the Seventh District a society is to be formed in September.

"The individual councilor can do much, but far less than that which must be accomplished in the formulation and maintenance of a successful district society. Your Secretary suggests that in those districts not now organized the delegates assembled meet with their councilor during this meeting to see what may be accomplished in organizing a district society."

Now our resolution reads: "RESOLVED, That the District Councilors are hereby directed to organize their respective districts to secure at least one district conference during the year to the end of securing a better acquaintance of the members of the component societies; crystallization of interest and action on publicity and legislative programs; and as a clearing house for the scientific papers of the programs of the county societies."

There is no particular advanced or increased organization of the districts under that except to make them function, as I see it.

I move the adoption of that resolution, omitting that part which provides for the nomination of a councilor by the delegates of the component societies of that district.

The motion was seconded by Dr. Bock.

PRESIDENT SLEYSER: Is there any further discussion? If not, all in favor say "aye;" contrary "no." The section is adopted.

DR. FIEDLER: Recognizing that the present dues of the State Medical Society are somewhat in excess of our present requirements, your Committee has carefully considered (with an expression on the subject by the

House of Delegates) the advisability of reducing the dues to the immediate needs of the Society. We concluded, however, that with the dues at the present figures it will be possible to increase the service program of the staff to the individual physician, the county society, the district conference, in such lines of endeavor as have been indicated and outlined above and by other methods to be sought and determined to the end of a better and more efficient general organization. We, therefore, submit the following:

"Resolved, that for the year 1925 the annual dues to the State Medical Society shall be and are fixed at \$9 per year as at present."

I move the adoption of this resolution.

The motion was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: Any discussion? If not, all in favor say "aye;" contrary "no." Unanimously carried.

DR. FIEDLER: The Secretary in his report outlined what has been done or could be done in the matter of providing liability, fire and auto insurance to members of the Society. After due consideration, your Committee submits the following:

"Be It Resolved, that at the present time the State Medical Society shall take no action in the matter of automobile insurance for the members of the organization."

I move the adoption of this resolution.

The motion was seconded by Dr. Bock.

PRESIDENT SLEYSER: Any discussion? If not, all in favor say "aye;" contrary "no." The "ayes" have it.

DR. FIEDLER: One other matter was presented to your Committee for its consideration. It appears that there have been appropriated from the funds of this Society the sum of \$100 annually to assist in the publication and distribution to members of the profession the *Crusader*, the journal of the Anti-Tuberculosis Association. It was suggested that this sum shall be increased to \$300.

Your Committee believes that the physicians of the state are financially making generous contributions to this work and organization in the service they render gratis and in their purchases of the seals of the organization.

Moreover we believe that it is not good policy for this Society to raise funds to support others (though most worthy and cooperating agencies) in our warfare against disease.

We believe that the Society's funds should be used exclusively for the Society and its component organizations, otherwise we shall have a lot of such bodies, Red Cross, welfare workers, etc., seeking our financial aid. We, therefore, submit the following:

"Be It Resolved, by the State Medical Society that it is the fixed policy of this organization to expend its resources to promote its own activities and interests and that it deems it unwise and contrary to its own best interest to contribute financially to the support or maintenance of any other organization."

I move the adoption of the resolution.

DR. KAUMHEIMER: I move the resolution be laid on the table.

DR. SEELMAN seconded the motion to adopt the resolution.

PRESIDENT SLEYSER: It has been moved and seconded this section of the report be adopted. Is there any discussion?

DR. KAUMHEIMER: Mr. President, I feel we are talking of propaganda against one disease and against another disease and the enlightenment of the public on health problems. I do not know of any agency which has enlightened the public more on health problems than the Wisconsin Anti-Tuberculosis Association. I have no official connection with it but I don't know of anything that lies on my waiting room table that I read more often than a copy of the Crusader. If we are going to enlighten the public and if we are going to indulge in health propaganda, we have to make use of auxiliary organizations and I don't see how we can spend a few hundred dollars any better than by encouraging the distribution of such organizations. I would be willing to vote a similar sum for the publication of a booklet, or leaflet or whatever you want to call it, monthly on cancer. I think it is money wisely and well spent. If you talk of raising money for public instruction in health matters, I don't see how we can stultify ourselves by refusing to help this one along, unless we are prepared to publish something similar under our own name.

DR. FIEDLER: Mr. Chairman, it isn't a question about the efficacy or value of the Crusader; we all recognize it. It is the general principle that underlies this thing. We are carrying on certain work in public health instruction. We are carrying on as a Society work on cancer problems and prevention of cancer. We carry on work on tuberculosis as a Society. The question is whether as a Society we shall contribute to the support of other societies financially. There is the principle involved and it is quite different. There is no question about the value of the Crusader. I have no objections if you want to pass a resolution here that members of the medical society shall subscribe to the Crusader, but for us to collect dues from the membership and spend it outside the Society doesn't seem to me right in principle. That is the only objection we have. It is the principle involved in this problem we bring before you in this report.

DR. SEELMAN: Might I explain my second to this motion? Last evening I believe there was some discussion as to the advisability of maintaining the present dues. One of the delegates from the Milwaukee Society said that he had heard a number of the members of the Milwaukee Society expressing objection to the dues as they are at the present time. I think that was possibly one of the reasons why some of these members objected. I feel as the other members do, there is no organization in the state of Wisconsin that has done more for the health of communities than the Anti-Tuberculosis Association. I subscribe every year, buy a liberal number of their stamps, but I feel that Dr. Fiedler is absolutely right in the statement that the fundamental principle underlying the thing is wrong

and that we are bound to have considerable criticism from members of the Society who are paying their dues, will pay their dues but pay them only on the assumption that they are being used for purposes primarily connected with the advancement of the Society itself. That is the reason I seconded the motion.

DR. EDWARD EVANS (La Crosse): I think sometimes it is a good principle to forget principle perhaps. This, after all, is a subsidiary medical organization, and I know of no organization that has been doing so much for the medical profession throughout the state as the Anti-Tuberculosis Association. To refer to their clinics they send out through the state for examination, (and I have been as free to criticize them as anybody, I think)—I know nothing that keeps the medical man so much on his toes as those clinics given in the various communities throughout the state. I think I was the one who originally voted \$50 to help the Crusader to go to our offices. I still feel it is a splendid thing and I agree fully with what Dr. Dearholt said last night. The thing to do with money we have is to spend it, if we can spend it efficiently and for the well being not only of the profession but of the community. I know of no expenditure we can make that will be as valuable for the medical profession and the people they are taking care of as this small financial help this Society could make to those people who cooperate with the medical profession.

DR. KAUMHEIMER: Mr. President, we are told that it is a matter of principle, that we oughtn't use the Anti-Tuberculosis Association. At the same time we voted money to get material, printed material and other material to instruct the public. Supposing we buy \$300 worth of material from the Anti-Tuberculosis Association; whether we buy it from them or whether we buy it from Saunders, what is the difference? We are using it for a subject in which we are deeply interested, health work, and as long as we get it from a legitimate source, a deserving source, what is the difference? I think that resolution is not in line with what we have adopted before that we will procure material to be sent to the county secretaries and to nurses and others and instruct the public in health advancement. Suppose we buy some material, what difference does it make what firm or organization we buy it from as long as it is good material?

DR. SCHMELING: Mr. Chairman, I belong to that Committee that drew up the resolution. I would vote that that resolution be sustained. Members of the medical profession contribute liberally out of their own pockets to uphold the Wisconsin Anti-Tuberculosis Association. They get so many stamps sent to them, at least I do, and everybody knows no physician will turn those stamps back. He forks over the money. Now if we want individually to help that Association along, I think it is right but at the same time I agree fully with Dr. Fiedler that we have our own Society to support and we should not support component societies.

DR. FIEDLER: Mr. Chairman, I think it might be perfectly proper to buy material from the Anti-Tuberculosis Association. That is all right, if we buy the material

and distribute it to our members as part of the work of our organization. But I still feel the resolution which we present keeps the funds of the Society for expenditure within the Society and is right. Any other resolution or motion you may make authorizing the Health and Public Instruction Committee to spend another hundred dollars or two or three or four, if you want to, for this material is all right. As it appears now it is a contribution to another society. While they are employed in the same line of work we are doing, in my opinion it is a wrong principle and a bad precedent to set.

DR. DEARBOLT: Mr. President, I hate to speak on the subject but the last words of Dr. Fiedler, I think, are quite contrary to the historical facts in the matter. As a matter of fact that never represented a contribution from the State Medical Society to the Wisconsin Anti-Tuberculosis Association. When the Committee on Public Education was formed a number of years ago, the committee suggested the possibility of the *Crusader* being put in the hands of all the doctors of this state, and we figured at that time, as Mr. Crownhart said last night, by going in on a cooperative basis, recognizing what the value of that circulation was to our propaganda movement, we would bear one-half of the reprint cost to the Wisconsin Anti-Tuberculosis Association—mind you, one-half of the reprint cost. The State Society should bear the other half of the reprint cost. There were fewer members in the Society at that time and to make the bookkeeping simple, it was placed at \$100.

Now \$100 does not pay (Mr. Crownhart gave the figures last night) one-seventh of the reprint cost. The original printing, the editorial work, the compilation of those articles, nothing like that is calculated at all, but merely one-seventh of what it costs us to reprint.

I said to him when this matter was up before the meeting that I myself have very grave doubts as editor of the *Crusader* nominally, although I don't do the work, as Secretary of the Association, whether it is worth anything at all. Then I meet with people who tell me they consider it a very valuable little publication.

Now I hope that you will be fair in your action on this subject. As I said to Mr. Crownhart, it is a matter of indifference to me. Personally, I thought the Society might very well resolve to either throw it up entirely or continue it, and if it was continued one-seventh would be an unfair burden when the Wisconsin Anti-Tuberculosis Association bears six-sevenths of the cost of this distribution. So I ask in all fairness to the honor of the Wisconsin Anti-Tuberculosis Association to bear in mind that we are not asking a contribution of \$100; we have never accepted it as a contribution of \$100, but we have been furnishing to the State Medical Society educational literature at one-seventh of the cost to us.

DR. FIEDLER: Mr. Chairman, this being the case, it doesn't affect this contribution to the *Crusader* at all.

Dr. Fiedler read the resolution again.

DR. FIEDLER: If this is not a contribution to any other organization, it does not affect the *Crusader*. The resolution is relative to the funds of this Society.

PRESIDENT SLEYSER: Are you ready for the question? All in favor say "aye;" contrary "no." The "ayes" have it and the section is adopted.

DR. FIEDLER: I move the adoption of the report as a whole.

The motion was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: The adoption of the report as a whole has been moved and seconded. Any discussion? If not, all in favor say "aye;" contrary "no." The "ayes" have it and the report is adopted.

Next is the report of the reference Committee on Public Policy and Legislation, Dr. Seelman, Chairman.

DR. SEELMAN: Mr. Chairman, we have gone over these recommendations very carefully, and the Committee is unanimous in the opinion that they ought to be adopted. We find nothing in there that we feel the Society could afford to overlook or to ignore. I suppose that the members have read all of the recommendations. I don't know whether it is necessary to read them over separately. There is nothing in there we can afford to overlook. It concerns itself chiefly with the question of doing something in connection with the next legislature for the purpose of putting across a minimum medical educational bill which will provide that all persons who undertake to treat disease will be required to measure up to a certain minimum standard of education. If there is anything that we could add to those recommendations, it would be that some steps be taken to maintain a legislative counsel. I believe these recommendations don't refer to that. I personally believe it is very important, because simply sending information to the legislators doesn't get very far. They get so much of that they don't read it. I think it is important to have on the ground some one whose business it is to look after the interests of this association, especially in connection with the passing of this minimum educational bill. That is the only thing we could possibly add to what has been recommended by your Committee on Public Policy and Legislation.

PRESIDENT SLEYSER: Dr. Seelman, do I understand the Committee wishes to incorporate that as a part of their report?

DR. SEELMAN: If the Society feels it would be wise to do so.

PRESIDENT SLEYSER: Will you make a motion, sir?

DR. SEELMAN: I think it would be well to adopt the resolutions first.

I make a motion to adopt the report of the Committee as published in the hand book.

The motion was seconded by Dr. Bock.

PRESIDENT SLEYSER: Any discussion? If not, all in favor say "aye;" contrary "no." The report of the Committee as published in the hand book is adopted.

REPORT OF THE COMMITTEE ON PUBLIC POLICY AND LEGISLATION.

To the Members of the 1924 House of Delegates:

At the last annual meeting of this House your Committee on Public Policy and Legislation submitted a recommendation for the institution of a program of lay

educational work. Your committee then expressed its conviction that the organized profession of the state was not responsible for either the enactment or enforcement of public health measures. We expressed the opinion, however, that it was the duty of the organized profession of the state to point out to public and state officials and laymen at large the necessity for public health laws and their enforcement with the advantages to the general public welfare that accrue. We now reiterate that statement without modification or change as the basis for this report.

Pursuant to your direction of last October the Committee prepared an outline for the beginnings of this lay educational program. That outline was approved by the Council and has been put into effect through the office of our Executive Secretary. The details of the work that has been done may well be left to the Secretary's report. We take this opportunity to present the suggested plan of work for the coming year.

LEGISLATIVE WORK.

January, 1925, will see a new legislature in session at Madison. The members of that legislature will be drawn from industry, the farms, and professional life. Few of these men may now realize that an educated profession in the field of the healing art is the basis of preventive medicine—a science that saves hundreds of lives annually in this state. Judging from measures introduced at previous sessions of the legislature, these members will be called upon, possibly many times, to cast a vote on measures that would tear apart the foundations of public health laws now enacted. They may be called upon to cast a vote as between the licensing of a profession that is able to use ordinary skill and care in diagnosis, and the licensing of quackery, fraud and deceit.

The responsibility is wholly and entirely theirs. They must make the choice if such measures are introduced but there can be no choice if the honored members of that body are not informed as to the position of scientific medicine and what its work offers to the public well being. Such information should be made available to them. We propose, therefore, that this House of Delegates authorize this Committee to make that information available.

PROPOSE BASIC SCIENCE BILL.

Secondly, we desire to reaffirm the position of this Society that before a person should be allowed to hold himself out as capable of treating human disease, public welfare demands a minimum of protection. That minimum should be the ability of the applicant to use just ordinary skill and care in the diagnosing of disease. The applicant should have some knowledge of physiology and anatomy, the body in health; of pathology, the body in disease; and of diagnosis, the ability to distinguish the difference and cause. Such knowledge is basic and is the first prerequisite to intelligent treatment, no matter of what type or kind. With the exception of those who profess to alleviate human pain through religious or spiritual means, such basic knowledge should

be required of any and all who desire to enter any field of the healing art in this or any other state.

He who has not the ability to use ordinary skill and care in diagnosis will have patients with contagious diseases exposing an entire community. He who has not the ability to use ordinary skill and care in the diagnosis endangers the life of his patient as well as the lives of those with whom the patient may come in contact. Laws for the quarantine of contagious disease, for the accurate reporting of the 412 distinct causes of death, and all similar public health measures are at once defeated in spirit and in act when the state permits the practice of any form of the healing art without the basic education that provides the background for intelligent diagnosis of the particular types and kinds of disease.

A measure to provide this minimum of protection to the individual and public health was introduced in the 1923 legislature. It was defeated. The fact that it was not passed in no way lessens its crying need; in no way lessens our responsibility as an organized profession to point out once more its value.

We suggest that this basic measure for the protection of public health again be placed before the legislature for its consideration and decision.

CONTINUE LAY EDUCATIONAL WORK.

Third, careful lay educational work to make available to the laymen accurate information concerning the opportunities offered by scientific medicine should be continued. To this end we ask authority for:

(a) The publication of a Second Annual Lay Issue of our Wisconsin Medical Journal in January next;

(b) To continue in force some 250 subscriptions to *Hygeia* presented to those whose duty it is to pass upon and deal with public health questions;

(c) To continue the present work of presenting laymen with material bearing upon the present day advances of medical science; and,

(d) To continue and expand, as may be possible and deemed wise by the Council, the general lay educational work bearing upon the great opportunities offered in scientific preventive medicine for the protection of health and the prolongation of human life.

ANNUAL THEME CONTEST.

Fourth, your Committee secured the approval of the Council at its June meeting for the expending of \$500, appropriated by this House in 1923, for the purpose of conducting a theme contest in the high schools throughout the state. We feel that such a contest, conducted annually on subjects dealing with the basic problems of public health will go far in the accomplishment of lay educational work. We feel, however, that possibly this work belongs more appropriately under the jurisdiction of the Committee on Health and Public Instruction. We ask, therefore, that you appropriate such a sum to the Committee on Health and Public Instruction for this purpose.

APPROPRIATIONS SUGGESTED.

Your Committee feels that the work outlined under

the general head of lay educational work justifies an appropriation of \$2,000 to be used with the approval of the Council. If you feel that the basic educational law should again be introduced, your Committee asks an appropriation of \$1500, this request being based upon its 1923 experience. This latter sum will be expended in the necessary traveling expenses, in making appearances before Committees, and for similar purposes that have as the sole end in view the making available accurate information bearing upon the basic necessity for the proposed law.

RESOLUTION SUBMITTED.

Last month this Committee lost a member who has ever had the interest of the Society at heart; a member who has generously given of his time and to whom the Society is indebted beyond words of expression. We refer to Dr. George C. Ruhland of Milwaukee who has just left Wisconsin to continue his public health work in wider fields elsewhere. We believe it fitting that some expression of gratitude be placed on the records of this Society and we place the following resolution before you:

"Whereas, Dr. George C. Ruhland has for many years conscientiously served the public and the members of this Society as an active member of the Committee on Public Policy and Legislation, and

"Whereas, Doctor Ruhland has left Wisconsin to accept a position of greater responsibility and larger opportunities, now, therefore,

"Be it Resolved, by the House of Delegates of the State Medical Society of Wisconsin duly assembled in its 78th Annual Meeting that we express to Doctor Ruhland our sincere appreciation of his loyal efforts and wish him every success and happiness in his future endeavors."

Respectfully submitted,

O. B. BOCK, *Chairman*,

EDWARD QUICK,

MR. J. G. CROWNHART, *Secy.*

DR. SEELMAN: I now move, Mr. Chairman, that the Committee on Public Policy and Legislation be authorized to employ counsel to look after the interests of this Society in connection with coming legislation.

The motion was seconded by Dr. Mauermann.

PRESIDENT SLEYSER: Do you mean they be authorized or instructed? Is it to be left to the discretion of the Committee?

DR. SEELMAN: It might be well to leave it to their discretion.

PRESIDENT SLEYSER: It has been moved and seconded that if in the discretion of the Committee they deem it wise to employ a counsel, they are authorized to do so. Is there any discussion? If not, all in favor say "aye;" contrary "no." The "ayes" have it and it is so ordered.

We are now under the head of new business. If there is no new business to come before the House, it will be necessary for you to decide the time of your meeting tomorrow. I think a short meeting will be all that is necessary. We need a short meeting to hear the report

of the Nominating Committee and to take care of miscellaneous business. It probably won't take over fifteen or twenty minutes. Have you any suggestions, Mr. Secretary?

SECRETARY CROWNHART: Inasmuch as the luncheons are tomorrow noon and the banquet tomorrow night, unless the delegates desire to meet after the scientific session tomorrow afternoon, I would suggest you meet at eight or a few minutes before eight in the morning.

DR. BLUMENTHAL: I move we adjourn to meet at eight o'clock tomorrow morning.

The motion was seconded by Dr. Bock.

PRESIDENT SLEYSER: Moved and seconded we adjourn to meet tomorrow morning at eight o'clock sharp in this room. All in favor say "aye;" contrary "no." The "ayes" have it and the meeting is adjourned.

The meeting adjourned at eight-forty-five o'clock.

ADJOURNMENT.

THURSDAY MORNING SESSION.

August 21, 1924.

The third meeting of the House of Delegates of the Wisconsin State Medical Society was called to order at eight-fifty o'clock by President Sleyser.

PRESIDENT SLEYSER: The House will please come to order. The Secretary will take the roll call in the usual way.

The first order of business is the subject of the amendment of the Constitution brought up in the report of the Publication Committee. Will you read the proposed amendment, Mr. Secretary?

SECRETARY CROWNHART: Mr. President, the purpose of this amendment is simply to change the Publication Committee in name to the Editorial Board. We have no medical editor and the Committee is acting as a whole. That is all the proposed amendment does.

The Constitution as amended would read: "The Editorial Board shall consist of three members and the Secretary and Treasurer. The Board shall be in charge of the affairs of the Journal, and shall appoint the Managing Editor. The Board shall render an annual report to the House of Delegates and to the Council at its January meeting."

It is substituting the Board for Publication Committee.

PRESIDENT SLEYSER: You have heard the proposed amendment as read. Is any one prepared to make a motion that this be enacted?

DR. BLUMENTHAL: Mr. President, I move the adoption of this amendment.

The motion was seconded by Dr. Bock.

PRESIDENT SLEYSER: Any discussion? If not, all in favor of the proposed amendment say "aye;" contrary "no." The "ayes" have it and it is adopted.

The next order of business is the report of the Nominating Committee.

SECRETARY CROWNHART: I have that report.

"To the Members of the 1924 House of Delegates: Your Committee on Nominations beg to submit the following nominations for officers for the year 1925:

"President, W. Cunningham, Platteville.

"First Vice-President, J. Gurney Taylor, Milwaukee.

"Second Vice-President, H. A. Jegi, Galesville.

"Third Vice-President, Howard Curl, Sheboygan.

"The Secretary and Treasurer are elected by the Council at its January meeting.

"Your Committee further places before you the nomination of the city of Milwaukee as the place for our 79th Annual Meeting in 1925."

PRESIDENT SLEYSER: Gentlemen, you have heard the report of the Nominating Committee. What is your pleasure?

DR. BLUMENTHAL: I move its adoption.

The motion was seconded by Dr. Bock.

PRESIDENT SLEYSER: Are there any further nominations? If not, all in favor say "aye;" contrary "no." These men are unanimously elected, and the city of Milwaukee is chosen as the next place of meeting. The date, I imagine, will be left as usual to the Council to decide.

Mr. Secretary, is there any further business?

SECRETARY CROWNHART: I have no further business.

PRESIDENT SLEYSER: What time do we meet tomorrow morning?

SECRETARY CROWNHART: The session meets at nine

DR. FIEDLER: Mr. President, there have been several recommendations as to special committees for carrying on special work relative to the prevention of disease and the Committee on Resolutions think it might be advisable to appoint a committee to study the goiter situation and bring in recommendations to the medical society next year on this disease. The prevalence of goiter in this state, of course, is great and some work should be done by the medical society, I believe, on the treatment of the pre-adolescent and prevent the development of enlargement of the thyroid and goiter generally.

I would like to move that the President appoint a committee of three to study this problem and bring recommendations to the 1925 meeting of the Society on this question, and that there be appropriated from the funds of the treasury \$100 for the work of this committee.

The motion was seconded by Dr. Caswell.

PRESIDENT SLEYSER: Any discussion? Gentlemen, you have all heard the motion. All in favor say "aye;" contrary "no." The "ayes" have it.

I might say I talked with Dr. Stovall last night after the meeting adjourned. He felt that possibly his activities would be very limited by the \$300 appropriation made. It would be my suggestion that the amount be changed and a limit of \$500 be put on the expenditures of this Committee.

DR. KAUMHEIMER: I make such a motion, that the sum of \$300 be changed to read \$500 as an appropriation for Dr. Stovall's Committee.

The motion was seconded by Dr. Schmeling.

PRESIDENT SLEYSER: Any discussion? If not, all in favor say "aye;" contrary "no." The "ayes" have it. Any further business?

SECRETARY CROWNHART: No further business.

PRESIDENT SLEYSER: Gentlemen, is it your pleasure to adjourn *sine die* or adjourn until tomorrow morning? Do you think we will have any business tomorrow morning?

SECRETARY CROWNHART: I don't know of any.

DR. FIEDLER: I move, Mr. President, this meeting adjourn subject to the call of the President.

The motion was seconded by Dr. Bock.

PRESIDENT SLEYSER: Moved and seconded we adjourn subject to the call of the President. All in favor say "aye;" contrary "no." Carried.

Before we adjourn, I want to thank you gentlemen for the ease and dispatch with which we have disposed of the business of this session. I don't think any House of Delegates has ever been finished with less bloodshed, done the work more quickly, or accomplished more. It has been a splendid session. I appreciate your cooperation.

The meeting adjourned at eight-fifteen o'clock.

ADJOURNMENT.

HOUSE OF DELEGATES.

STATE MEDICAL SOCIETY OF WISCONSIN.

Attendance*—First Meeting.

DELEGATES AND OFFICERS.

S. B. Ackley, Waukesha County.
 C. H. Andrew, Grant County.
 J. C. Baird, Eau Claire County.
 Robert W. Blumenthal, Milwaukee County.
 W. E. Buckley, Green Lake-W-A County.
 F. E. Butler, Dunn-Pepin County.
 H. O. Caswell, Jefferson County.
 F. Gregory Connell, Winnebago County.
 Wilson Cunningham, Grant County.
 H. E. Dearholt, Milwaukee County.
 L. S. Dietrich, Price-Taylor County.
 Frederick A. Davis, Dane County.
 D. L. Dawson, Barron-P-W-S-B County.
 J. M. Dodd, Ashland-B-I County.
 C. G. Dwight, Dane County.
 Edward Evans, La Crosse County.
 Otho A. Fiedler, Sheboygan County.
 C. M. Gleason, Manitowoc County.
 S. S. Hall, Green Lake-W-A County.
 D. J. Hayes, Milwaukee County.
 Samuel P. Higgins, Milwaukee County.
 F. C. Huff, Door County.
 H. A. Jegi, Trempealeau-J-B County.
 William Jobse, Milwaukee County.
 G. J. Kaumheimer, Milwaukee County.
 T. E. Loope, Waupaca County.
 A. J. McDowell, Crawford County.
 J. F. Mauermann, Green County.
 T. Miller, Alternate, Waukesha County.
 A. T. Nadeau, Marinette County.
 T. J. O'Leary, Douglas County.
 C. J. Ouellette, Oconto County.
 T. J. Redelings, Marinette-F County.
 C. G. Richards, Kenosha County.
 R. B. Rogers, Winnebago County.

M. J. Sandborn, Outagamie County.
 A. F. Schmeling, Columbia County.
 J. J. Seelman, Milwaukee County.
 Rock Sleyster, President.
 Joseph F. Smith, Marathon County.
 F. A. Southwick, Portage County.
 L. E. Spencer, Marathon County.
 Carl E. Stubenvoll, Shawano County.
 F. A. Thompson, Milwaukee County.
 D. N. Walters, Fond du Lac County.
 M. R. Wilkinson, Waukesha County.
 G. Windesheim, Kenosha County.
 J. C. Wright, Lauglade County.

HOUSE OF DELEGATES.

STATE MEDICAL SOCIETY OF WISCONSIN.

Attendance—Second Meeting.

DELEGATES AND OFFICERS.

Joseph Baird, Eau Claire County.
 O. B. Bock, Sheboygan County.
 Robert Blumenthal, Milwaukee County.
 W. E. Buckley, Green Lake-W-A County.
 F. E. Butler, Dunn-Pepin County.
 F. E. Chandler, Waupaca County.
 D. L. Dawson, Barron-P-W-S-B County.
 H. E. Dearholt, Milwaukee County.
 L. S. Dietrich, Price-Taylor County.
 W. J. Egan, Milwaukee County.
 Otho A. Fiedler, Sheboygan County.
 R. C. Halsey, Walworth County.
 M. S. Hosmer, Ashland-B-I County.
 H. A. Jegi, Trempealeau-J-B County.
 G. J. Kaumheimer, Milwaukee County.
 T. E. Loope, Waupaca County.
 J. F. Manermann, Green County.
 J. R. Minahan, Brown-Kewaunee County.
 A. T. Nadeau, Marinette-F County.
 E. G. Nadeau, Alternate, Brown-Kewaunee County.
 T. J. O'Leary, Douglas County.
 C. J. Ouellette, Oconto County.
 T. J. Redelings, Marinette-F County.
 M. J. Sandborn, Outagamie County.
 Rock Sleyster, President.
 Joseph F. Smith, Marathon County.
 F. A. Southwick, Portage County.
 Carl E. Stubenvoll, Shawano County.
 F. A. Thompson, Milwaukee County.
 G. Windesheim, Kenosha County.

HOUSE OF DELEGATES.

STATE MEDICAL SOCIETY OF WISCONSIN.

Attendance—Third Meeting.

DELEGATES AND OFFICERS.

Robert Blumenthal, Milwaukee County.
 O. B. Bock, Sheboygan County.
 W. E. Buckley, Green Lake-W-A County.
 F. E. Butler, Dunn-Pepin County.
 D. L. Dawson, Barron-P-W-S-B County.
 K. W. Doge, Wood County.
 Otho A. Fiedler, Sheboygan County.

R. C. Halsey, Walworth County.
 M. S. Hosmer, Ashland-B-I County.
 H. A. Jegi, Trempealeau-J-B County.
 G. J. Kaumheimer, Milwaukee County.
 A. J. McDowell, Crawford County.
 A. T. Nadeau, Marinette County.
 T. J. O'Leary, Douglas County.
 A. F. Schmeling, Columbia County.
 Rock Sleyster, President.
 L. E. Spencer, Marathon County.

*Record of attendance was taken at each meeting by filling in the names on individual attendance slips. It is possible that some are not credited with attendance through failure to fill out or hand in the slips.

MINUTES OF THE COUNCIL

The first meeting of the Council was held Wednesday evening, August 20. Councilors Windesheim, Bock, Evans, Smith, Redelings, Dodd and Dearholt, President Sleyster, Treasurer Hall, and Mr. J. G. Crownhart, secretary, present. The minutes of the June meeting as published in the Wisconsin Medical Journal were approved.

The secretary presented the resignation of the treasurer, Dr. S. S. Hall of Ripon, explaining that Doctor Hall was retiring from practice to live in Minneapolis. Upon motion of Doctor Redelings, seconded by Doctor Smith, the resignation was accepted.

The secretary set forth to the Council the present status of the proposed combination of the Eau Claire and Dunn-Pepin County Medical Societies. Upon motion of Doctor Dearholt, seconded by Doctor Dodd, the counties were authorized to combine under the name of "The Eau Claire Associated County Medical Society." Motion carried.

The Council adjourned to Thursday noon, August 21.

SECOND MEETING

The second meeting of the Council was held on Thursday noon, August 21. Councilor Windesheim, Harper, Cunningham, Bock, Connell, Evans, Redelings, Smith, Dodd and Dearholt, President Sleyster, Treasurer Hall, and Mr. J. G. Crownhart, secretary, present.

Upon motion by Doctor Smith, seconded by Doctor Bock, Dr. Rock Sleyster, Wauwatosa, was elected treasurer, without salary, to succeed Dr. S. S. Hall, Ripon, resigned.

The Council adjourned subject to call of the chairman.

J. G. CROWNHART,

Executive Secretary.

THE EX-SERVICE MAN AND HIS LUNGS

A study of detailed records of 1,200 ex-service men examined by John B. Hawes, 2d., Boston (Journal A. M. A., Nov. 8, 1924), revealed that: Tuberculosis is wrongly diagnosed chiefly because of too great dependence on roentgen-ray evidence. The distinction between active cases requiring hospitalization and inactive cases requiring only supervision should be clearly drawn. Gas and influenza are only minor factors, as far as tuberculosis and its development is concerned. With the exception of a moderate degree of chronic bronchitis, which may often be properly attributed to the late effects of gas or influenza, both gas and influenza had a far greater effect on the nervous system than on the respiratory system of the ex-service man.

Membership List, State Medical Society of Wisconsin, 1924

Compiled as of December 1, 1924.

- Abbott, LeRoy, Wilton.
 Abelmann, Theo. C. II., Watertown.
 Ackerman, Wm., Milwaukee.
 Ackley, S. B., Oconomowoc
 Adamkiewicz, Jos. J., Milwaukee.
 Adams, Geo. F., Kenosha.
 Adams, R. W., Barron.
 Addleman, Irving M., Wausau.
 Ainsworth, H. H., Madison.
 Akerley, A. W., Des Moines, Ia.
 Albers, H. II., Allenton.
 Aldridge, H. W., Manitowoc.
 Alexander, W. S., Fond du Lac.
 Allen, C. F., Middleton.
 Allen, J. S., Norwalk.
 Allen, Jessie P., Beloit.
 Allen, L. P., Oshkosh.
 Allen Laurie Lee, Wauwatosa.
 Allen, S. C., Waterloo.
 Allen, Wm. J., Beloit.
 Altenhofen, A. R., Wauwatosa.
 Altman, Maurice, Milwaukee.
 Amundson, Karl K., Cambridge.
 Amunson, Philip B., Mondovi.
 Anderson, Chas. E., Montreal.
 Anderson, F. G., Eau Claire.
 Anderson, Jens, Racine.
 Anderson, N. P., La Crosse.
 Andrac, R. W., Plainfield.
 Andrew, C. II., Platteville.
 Andrew, G. F., De Sota.
 Andrews, Malcolm P., Manitowoc.
 Andrews, Niel, Jr., Oshkosh.
 Autoine, F. J., Prairie du Chien.
 Aplin, F. W., Waukesha.
 Arnbruster, B. F., Milwaukee.
 Armitage, John E., Milwaukee.
 Armstrong, C. A., Prairie du Chien.
 Armstrong, C. E., Oconto.
 Armstrong, Guy, Ponnd.
 Arnold, F. W., Milwaukee.
 Arveson, Ray G., Frederic.
 Ashley, T. W., Kenosha.
 Ashum, David W., Eau Claire.
 Aston, E. G., Milwaukee.
 Austria, W. F., Merrill.
 Avey, Sarah E., Milwaukee.
 Aylward, Richard C., Madison.
 Axley, A. A., Washburn.
 Axtell, Luella E., Marinette.
- Baasen, J. M., Mt. Calvary.
 Babcock, I. G., Cumberland.
 Bach, J. A., Milwaukee.
 Bachhuber, A. E., Mayville.
 Bachhuber, L. M., Mayville.
 Baer, A. N., Milwaukee.
 Baer, C. A., Milwaukee.
 Bailey, Mark A., Fennimore.
 Bair, Francis M., Cuba City.
 Baird, J. C., Eau Claire.
 Baird, John, Superior.
 Baker, G. L., Rib Lake.
 Baker, Geo. R., Tomahawk.
 Baker, Julian C., Hawkins.
 Baker, John H., Bryant.
 Baker, W. F., Wausau.
 Baldwin, Geo. E., Green Lake.
 Baldwin, F. H., Bloomington.
 Balkwill, C. A., Grafton.
 Bancroft, H. V., Blue Mounds.
 Bangsberg, S. G., La Crosse.
 Bannen, W. E., La Crosse.
 Barber, J. L., Marathon.
 Bardeen, C. R., Madison.
 Bardenwerper, H. E., Milwaukee.
 Barlow, Roy A., Madison.
 Barnes, E. C., Ripon.
 Barnes, H. T., Delafield.
 Barnes, J. S., Milwaukee.
 Barnstein, Chas., Timothy.
 Barnstein, J. E., Manitowoc.
 Barrett, Edward J., Sheboygan.
 Barta, Edw. F., Milwaukee.
 Barth, G. P., Milwaukee.
 Bartran, Wm. H., Green Bay.
 Bath, Dane H., Oshkosh.
 Batty, A. J., Portage.
 Bauer, K. T., West Bend.
 Baugh, Chas. W., Milwaukee.
 Baum, E. L., Milwaukee.
 Baumgart, Clarence II., Milwaukee.
 Bayer, W. H., Merrill.
 Beadles, C. II., Beloit.
 Bear, W. G., Monroe.
 Beck, A. A., Wautoma.
- Becker, B. A., Silver Lake.
 Becker, W. C., Watertown.
 Beebe, Chauncey D., Sparta.
 Beebe, C. M., Sparta.
 Beebe, C. S., Milwaukee.
 Beebe, Geo., Eau Claire.
 Beebe, L. W., Superior.
 Beebe, P. A., Glenwood City.
 Beebe, S. D., Sparta.
 Beech, Geo. D., Sparta.
 Beffel, John M., Milwaukee.
 Beier, Anton D., Milwaukee.
 Beier, A. L., Chippewa Falls.
 Belitz, Alfred, Pepin.
 Belitz, Wm., Cochrane.
 Bell, A. R., Tomah.
 Bellaek, B. F., Columbus.
 Bellerue, A. R., Iola.
 Bellin, Julius J., Green Bay.
 Belting, Geo. W., Orfordville.
 Bennett, J. F., Burlington.
 Bennett, Louis J., Ft. Atkinson.
 Bennett, W. C., Denver, Colo.
 Benson, G. H., Richland Center.
 Bent, Xenna P., Benton.
 Bentley, John E., Portage.
 Benton, Jos. L., Appleton.
 Bentzeiu, E. W., Milwaukee.
 Berglund, Simon, Marinette.
 Bergwall, R. P., Milwaukee.
 Bernhard, A., Milwaukee.
 Bertrand, Jos. H., De Forest.
 Betz, J. C., Boscobel.
 Beust, M. von, Milwaukee.
 Beutler, W. F., Wauwatosa.
 Beyer, H., Pittsville.
 Bickel, Edwin F., Oshkosh.
 Bill, Benj. J., Genoa Junction.
 Bilstad, G. E., Cambridge.
 Binnewies, Frank C., Janesville.
 Binnie, Helen A., Kenosha.
 Bird, M. D., Marinette.
 Birk, Benj. J., Milwaukee.
 Bitter, R. H., Oshkosh.
 Black, Nelson M., Milwaukee.
 Blackburn, F. E., Cassville.
 Blair, J. C., Hazel Green.
 Blankinship, R. C., Madison.
 Blanton, Smiley, Minneapolis, Minn.
 Bleckwenn, W. J., Mendota.
 Blewett, M. T., Markesan.
 Blom, Julius, Menomonie.
 Bloom, E. J., Antigo.
 Blumenthal, R. W., Milwaukee.
 Blumer, Edward, Monticello.
 Bock, Otto B., Sheboygan.
 Bodden, A. M., Milwaukee.
 Boeckman, Frank A., Greenwood.
 Boerner, R. W., Milwaukee.
 Bolton, Ernest L., Appleton.
 Booher, John S., Richland Center.
 Boorse, L., Milwaukee.
 Boothby, E. L., Hammond.
 Borchardt, A. C., New London.
 Boren, C. H., Marinette.
 Boren, J. W., Marinette.
 Bornstein, Max, Milwaukee.
 Boslough, A. W., Wausau.
 Bossard, C., Richfield.
 Bossard, M., Spring Green.
 Bowen, E. W., Watertown.
 Bowen, H. P., Watertown.
 Bower, R. L., Madison.
 Boyce, S. R., Madison.
 Boyd, C. D., Kaukauna.
 Boyd, G. T., Fond du Lac.
 Boyer, E. T., Rhinelander.
 Boynton, R. D., Kilbourn.
 Bradbury, E. L., Neillsville.
 Bradfield, J. A. L., La Crosse.
 Bradford, E. B., Hudson.
 Brady, D. L., Bloomington.
 Brah, A. J., Milwaukee.
 Braun, Robt. F., Milwaukee.
 Brazeau, G. N., Milwaukee.
 Breckenridge, II. E., Racine.
 Breed, A. L., Elmwood.
 Breezinski, E. A., Milwaukee.
 Brehm, H. J., Racine.
 Brehm, Theo., Racine.
 Brewer, C. S., Waukesha.
 Brewer, Jay C., Jefferson.
 Brey, P. F., Milwaukee.
 Briggs, S. J., Madison.
 Brinkerhoff, F., Beloit.
- Broache, A. H., Oshkosh.
 Brockway, Frank, Oshkosh.
 Broghammer, F. J., Superior.
 Bronson, D. A., Fond du Lac.
 Brook, J. J., Milwaukee.
 Brookie, R. W., Pepin.
 Brooks, E. II., Appleton.
 Brooks, Lester M., Milwaukee.
 Brown, A. D., Mineral Point.
 Brown, D. A., Madison.
 Brown, E. B., Beloit.
 Brown, E. J., Madison.
 Brown, G. V. I., Milwaukee.
 Brown, H. M., Milwaukee.
 Brown, J. F., Waupun.
 Brown, R. C., Milwaukee.
 Brown, S. V. I., Milwaukee.
 Brumbaugh, E. V., Madison.
 Brunckhorst, P. O., Hortonville.
 Bryant, Jesse R., Wausau.
 Buchanan, R. C., Green Bay.
 Buck, G. C., Platteville.
 Buckley, W. E., Redgranite.
 Buckner, H. M., Mt. Iloreb.
 Bugher, C. E., Ladysmith.
 Bunting, Chas. H., Madison.
 Burbach, Theo. H., Milwaukee.
 Burdon, R. M., Green Bay.
 Burger, H. E., Beloit.
 Burkhardt, E. W., Menomonie Fal's.
 Burns, R. E., Madison.
 Burton, J. J., Milwaukee.
 Busse, Alfred A., Jefferson.
 Bussewitz, M. A., Milwaukee.
 Butler, E. P., Mosinee.
 Butler, F. E., Menomonie.
 Byrd, T. L., Milwaukee.
- Caffrey, A. J., Milwaukee.
 Cahana, Stephen, Milwaukee.
 Cahoon, Roger, Baraboo.
 Cairns, Rolla, River Falls.
 Caldwell, Henry C., St. Croix Falls.
 Caldwell, Margaret, Waukesha.
 Caldwell, T. J., Ladysmith.
 Callahan, H. T., Spencer.
 Callahan, J. L., La Crosse.
 Callan, P. L., Milwaukee.
 Calvey, P. J., Fond du Lac.
 Campbell, Lorne A., Clear Lake.
 Campbell, W. B., Waukesha.
 Canavan, J. P., Winneconne.
 Cannon, H. J., Milwaukee.
 Cantwell, Roger C., Shawano.
 Caples, B. M., Waukesha.
 Cargill, N. W., Milwaukee.
 Carhart, G. A., Milwaukee.
 Carlisle, C. L., Waukesha.
 Carlson, E. S., La Crosse.
 Carlson, G. W., Appleton.
 Carmichael, Chas. S., Helenville.
 Carter, Homer M., Madison.
 Carter, R. M., Green Bay.
 Carthaus, A. H. C., Thiensville.
 Cary, E. C., Reedsville.
 Casey, Merle, Almond.
 Cassels, G. S., Pt. Washington.
 Caswell, H. O., Ft. Atkinson.
 Caughey, C. R., Kenosha.
 Cavanaugh, T. E., Milwaukee.
 Caveney, Jas. J., Milwaukee.
 Chandler, Fremont E., Waupaca.
 Chandler, Jos., Pardeeville.
 Chapman, F. M., Milwaukee.
 Chapman, Vernon A., Milwaukee.
 Charbonneau, A., Green Bay.
 Charbonneau, E., Superior.
 Charron, T. A., Rice Lake.
 Chloupek, C. J., Green Bay.
 Chorlog, J. K., Madison.
 Christensen, Emil, Two Rivers.
 Christensen, F. C., New York City.
 Christenson, J. W., Waupaca.
 Christiansen, Geo., Galesville.
 Christiansen, H. H., Wausau.
 Christianson, O. A., Hawkes.
 Christofferson, A. L., Kenosha.
 Christofferson, A. M., Waupaca.
 Christofferson, H. II., Colby.
 Christofferson, P. J., Waupaca.
 Churchill, B. P., Milwaukee.
 Clark, Burton, Oshkosh.
 Clark, F. T., Waupun.
 Clark, I. F., Durand.

- Clark, J. F. W., Laona.
 Clark, Kate, Cable.
 Clark, R. B., Monroe.
 Clark, W. T., Janesville.
 Clarke, T. C., Milwaukee.
 Clawson, H. E., Redgranite.
 Cleary, J. H., Kenosha.
 Clifford, P. M., Green Bay.
 Coerper, E. E., Fredonia.
 Coffey, Chas. J., Milwaukee.
 Cohn, Arthur H., Milwaukee.
 Coleman, H. M., Barron.
 Collins, D. B., Madison.
 Collius, W. P., Racine.
 Colucy, M. J. J., Madison.
 Combaker, H. E., Osceola.
 Combaker, Leon C., Minneapolis, Minn.
 Combs, C. J., Oshkosh.
 Comee, William, Green Bay.
 Conklin, Geo. H., Superior.
 Conley, J. M., Oshkosh.
 Connell, D. R., Beloit.
 Connell, F. Gregory, Oshkosh.
 Conway, John M., Spring Valley.
 Cook, F. S., Eau Claire.
 Cooksey, R. T., Madison.
 Coon, Geo. E., Milton Jct.
 Coon, G. W., Milton.
 Coon, H. M., Stevens Point.
 Coon, J. W., Stevens Point.
 Coon, W. W., Gays Mills.
 Cooney, E. W., Appleton.
 Cooper, C. A., Colfax.
 Cooper, E. S., Almond.
 Copeland, Ernst, Milwaukee.
 Coppins, L. A., Marshfield.
 Corbett, M. E., Oshkosh.
 Corcoran, C. J., Milwaukee.
 Cornwall, W. B., Amery.
 Corr, J. T., Racine.
 Corry, Frank M., Menasha.
 Couch, E. E., West Allis.
 Coumbe, W. R., Richland Center.
 Covey, Clyde B., Waukesha.
 Cowan, Wayne F., Stevens Point.
 Cowles, Robt. L., Green Bay.
 Cox, A. M., Madison.
 Cox, J. A., Milwaukee.
 Cox, Legrand M., Milwaukee.
 Cremer, C. H., Cashton.
 Crikelair, F. L., Green Bay.
 Christman, E. S., Alma.
 Crockett, W. W., Beloit.
 Cron, Roland S., Milwaukee.
 Crone, V. D., Beloit.
 Crosby, E. P., Stevens Point.
 Crosley, Geo. E., Milton.
 Crowe, N. F., Delavan.
 Crowell, Dean P., La Crosse.
 Cummings, J. H., Superior.
 Cunningham, J. N., Stanley.
 Cunningham, M. A., Janesville.
 Cunningham, R. B., Cadott.
 Cunningham, Wilson, Platteville.
 Curl, Howard, Sheboygan.
 Curless, Grant W., Walworth.
 Currier, P. M., Milwaukee.
 Curtin, A. L., Milwaukee.
 Curtin, J. J., W. De Pere.
 Curtis, G. E., Eau Claire.
 Cushing-Lippitt, Eleanore, Milwaukee.
 Cutler, J. S., Wauwatosa.
 Cutter, J. D., Tomahawk.
- Dailey, P. J., Elcho.
 Dallwig, E. L., National Home.
 Dallwig, H. C., Milwaukee.
 Dalton, Raymond J., Milwaukee.
 Dana, A. C., Fond du Lac.
 Danforth, Quincy H., Omro.
 Daniels, L. J., Milwaukee.
 Darby, G. S., Brodhead.
 Darling, Earl, Milwaukee.
 Darling, F. E., Milwaukee.
 Darling, W. G., Milwaukee.
 Darling, Wm. S., Milwaukee.
 Davelaar, G. W., Milwaukee.
 Davies, R. E., Waukesha.
 Davin, Chas., Kenosha.
 Davis, Carl H., Milwaukee.
 Davis, F. A., Madison.
 Dawson, C. A., River Falls.
 Dawson, D. L., Rice Lake.
 Dean, James P., Madison.
 Dean, Jos. A., Madison.
 Dearholt, H. E., Milwaukee.
 Decker, C. O., Crandon.
 Decker, H. G., Milwaukee.
 DeCock, J. L., Green Bay.
 Dehne, W. O., Appleton.
 Deicher, H. F., Plymouth.
 Delaney, Harry O., Beloit.
- Del Marcelle, C. C., Neenah.
 DeNeveu, Arthur, Rhineland.
 Dennis, Jas. F., Waterloo.
 Derge, H. F., Eau Claire.
 Desbois, P., Marinette.
 De Swarte, L. J., Beloit.
 Devine, Geo. C., Ontario.
 Devine, Hubert A., Fond du Lac.
 DeWire, M. V., Sharon.
 Diamond, J. A., Frederic.
 Dickenson, G. H., Milwaukee.
 Dieterle, J. O., Milwaukee.
 Dietrich, L. S., Medford.
 Differt, Chas. C., Milwaukee.
 Dike, B. H., Owen.
 Dill, Geo. M., Prescott.
 Dishmaker, D., Kewaunee.
 Dobbins, Thos., Kenosha.
 Doctor, John, Racine.
 Dodd, J. M., Ashland.
 Dodge, Chas. H., Clinton.
 Doege, K. W., Marshfield.
 Doege, K. H., Marshfield.
 Doern, W. G., Milwaukee.
 Doerr, August, Milwaukee.
 Dohearty, F. P., Appleton.
 Dohearty, W. H., Peshigo.
 Domann, W. G., Menomonee Falls.
 Donnell, J. E., Cuba City.
 Donnelly, F. J., Mouches.
 Donohue, E. J., Antigo.
 Donohue, M. J., Antigo.
 Donohue, W. E., Manitowoc.
 Doolittle, J. C., Lancaster.
 Doolittle, S. W., Lancaster.
 Doughty, J. W., Delavau.
 Doughty, P. H., Juneau.
 Douglas, F. A., La Crosse.
 Downing, Dana F., Orange, N. J.
 Doyle, J. H., Little Chute.
 Doyle, John N., Wausau.
 Drake, Frank L., Milwaukee.
 Drexel, A., Milwaukee.
 Dreyer, R. A., Wheeler.
 Dries, Jos., Milwaukee.
 Drissen, W. H., Pt. Washington.
 Dudley, L. W., Statesan.
 Dundon, J. R., Milwaukee.
 Duer, G. R., Marinette.
 Dunn, E. A. A., Platteville.
 Durner, Urban J., Milwaukee.
 Dwight, C. G., Madison.
- Eagan, R. L., La Crosse.
 Eames, H. F., Egg Harbor.
 Eastman, Verne E., Wausau.
 Echols, C. M., Milwaukee.
 Echternacht, A., Janesville.
 Eck, Gust E., Lake Mills.
 Edden, R. W., Janesville.
 Edmonson, C. C., Waukesha.
 Edwards, A., Reedsburg.
 Edwards, A. C., Baraboo.
 Edwards, John B., Stevens Point.
 Egan, G. J., La Crosse.
 Egan, W. J., Milwaukee.
 Eglund, G. W., Sturgeon Bay.
 Egloff, L. W., Pewaukee.
 Ehmer, J. W., Crivitz.
 Eickelberg, F. A., Reeseville.
 Eldam, L. W., La Crosse.
 Eigenberger, Friedrich, Sheboygan.
 Eisenberg, J. J., Milwaukee.
 Eisenberg, P. J., Milwaukee.
 Ekblad, V. E., Superior.
 Elfers, Jos. G., Sheboygan.
 Ellenson, E. P., Chippewa Falls.
 Elliott, E. S., Fox Lake.
 Elliott, R. S., Gillett.
 Elmergreen, R., Milwaukee.
 Elson, J. C., Madison.
 Elvis, E. B., Medford.
 Engsberg, Wm. A., Lake Mills.
 Ennis, S. A. J., Shullsburg.
 Epley, O. H., New Richmond.
 Epperson, P. S., Milwaukee.
 Erdlitz, Frank J., Brillion.
 Erdman, C. H., Stanley.
 Erickson, H. C., Viroqua.
 Ernst, G. R., Milwaukee.
 Evans, C. A., Milwaukee.
 Evans, E. P., Milwaukee.
 Evans, Edward, La Crosse.
 Evans, J. S., Madison.
 Evans, Owen, Bangor.
 Eyster, J. A. E., Madison.
- Faber, C. A., Milwaukee.
 Fahrner, W. J., Wisconsin Rapids.
 Fairchild, R. J., Clintonville.
 Fairfield, W. E., Green Bay.
 Falk, V. S., Stouten.
- Farnsworth, A. L., Baraboo.
 Farnsworth, F. B., Janesville.
 Farr, J. F., Eau Claire.
 Farrell, A. M., Two Rivers.
 Farrell, T. E., Seneca.
 Fauerbach, Louis, Madison.
 Fawcett, W. E., Bayfield.
 Fazen, L. E., Racine.
 Fechter, F. J., Elkhart Lake.
 Federman, E. H., Montello.
 Federspiel, M. N., Milwaukee.
 Feltman, G. H., Milwaukee.
 Felter, Edw., Plymouth.
 Festerling, E. G., Reedsville.
 Fidler, Chas., Milwaukee.
 Fiebiger, Geo. J., Waterloo.
 Fiedler, Otho A., Sheboygan.
 Fifield, Geo. W., Janesville.
 Fike, F. A., Reedsburg.
 Fillback, H. E., Montfort.
 Finnegan, W. L., Madison.
 Finney, W. H., Clintonville.
 Fisher, R. F., Wausau.
 Fitzgerald, G. F. A., Hales Corners.
 Fitzgerald, J. J., Eagle.
 Fitzgerald, R. E., Milwaukee.
 Fitzgibbon, W., Milwaukee.
 Fitzpatrick, M. L., Milwaukee.
 Flanagan, G. J., Kaukauna.
 Flatley, M. A., Antigo.
 Flee, J. L., Brodhead.
 Fleming, E. E., Wausau.
 Fleming, W. J., West Allis.
 Fletcher, E. A., Milwaukee.
 Fletcher, Wm., Salem.
 Fleury, Frank D., Omro.
 Flynn, L. H., Eau Claire.
 Flynn, R. E., La Crosse.
 Foat, J. S., Ripon.
 Foerster, H. R., Milwaukee.
 Foerster, O. H., Milwaukee.
 Fogo, H. M., Chicago, Ill.
 Foley, F. P., Dorchester.
 Foley, L. J., Milwaukee.
 Folsom, Wm. H., Fond du Lac.
 Forbush, Sanford W., Orfordville.
 Ford, Walter A., Sheboygan.
 Ford, W. B., Milwaukee.
 Forkin, Geo. E., Menasha.
 Fortier, C. A. H., Milwaukee.
 Fortner, W. H., Princeton.
 Fosse, B. O., Beloit.
 Foster, J. H. A., Cornell.
 Fowle, F. F., Wauwatosa.
 Fowle, I. H., Milwaukee.
 Fowler, J. H., Lancaster.
 Fox, M. J., Milwaukee.
 Fox, Paul A., Beloit.
 Fox, P. R., Jr., Madison.
 Fox, Phillip, Sr., Madison.
 Francis, J. H., Kennan.
 Francois, S. J., New Glarus.
 Frank, John H., Milwaukee.
 Frank, J. H., Neillsville.
 Franklin, I., Milwaukee.
 Franklin, Samuel N., Milwaukee.
 Franzel, J. C., Ft. Atkinson.
 Frawley, Ray M., Wausau.
 Frawley, W. J., Appleton.
 Freeman, Jos. M., Wausau.
 Frew, J. W., Milwaukee.
 Frey, F. H., Wausau.
 Frey, P. G., Milwaukee.
 Frick, Lewis, Athens.
 Friedrich, R. O., Milwaukee.
 Friend, L. J., Merrill.
 Froelich, J. A., Milwaukee.
 Froggatt, W. E. L., Cross Plains.
 Fucik, E. J., Williams Bay.
 Fuerstenau, Lewis, Milwaukee.
 Fuller, M. H., Green Bay.
 Fulton, H. A., Eau Claire.
 Fulton, W. A., Burlington.
- Gabor, M. E., Milwaukee.
 Gaenslen, F. J., Milwaukee.
 Gallagher, E. E., La Crosse.
 Gally, M. J., Milwaukee.
 Galloway, A. D., Clayton.
 Ganser, W. J., Madison.
 Gates, A. J., Tigerton.
 Gates, Eugene, Two Rivers.
 Gathmann, Henry, Milwaukee.
 Gaunt, Peter F., Milwaukee.
 Gavin, S. E., Fond du Lac.
 Gendron, A. E., River Falls.
 Genter, Arthur E., Sheboygan.
 Gephart, C. H., Kenosha.
 Gessner, F. C., Oconomowoc.
 Gehy, Clarence W., Milwaukee.
 Gieson, C. W., Superior.
 Gifford, H. B., Juda.

- Gilchrist, R. T., Milwaukee.
 Gillespie, W. W., Milwaukee.
 Gillette, Harry E., Pardeeville.
 Gillis, J. P., Antigo.
 Gilman, R. G., Ashland.
 Gilmer, L. T., Milwaukee.
 Glasier, M. B., Bloomington.
 Glaubitz, Bruno J., Sheboygan.
 Gleason, C. M., Manitowoc.
 Gnagi, W. B., Monroe.
 Goddard, J. B., Eau Claire.
 Godfrey, Jos., Lancaster.
 Godfrey, Rush, Lancaster.
 Goetsch, O. F., Hustisford.
 Goggins, G. F., Green Bay.
 Goggins, J. W., Chilton.
 Goggins, R. J., Oconto Falls.
 Golley, F. B., Milwaukee.
 Gomber, Jacob, Goodman.
 Goodfellow, J. R., Superior.
 Gordon, John S., Milwaukee.
 Gorst, Chas., Madison.
 Gosin, F. J., Green Bay.
 Gramling, Elmer H., Milwaukee.
 Gramling, H. J., Milwaukee.
 Gramling, J. J., Milwaukee.
 Graner, L. H., Coleman.
 Grannis, I. V., Menomonie.
 Gratiot, C. C., Shullsburg.
 Gratiot, Mary, Shullsburg.
 Graves, J. P., Kenosha.
 Graves, L. S., Mineral Point.
 Gray, A. W., Milwaukee.
 Gray, R. H., La Crosse.
 Gray, W. K., Milwaukee.
 Greeley, H. P., Madison.
 Green, M. K., Mendota.
 Green, Wm. A., Wausau.
 Greenthal, R. M., Milwaukee.
 Greenwood, S. D., Neenah.
 Gregory, A. T., Mauston.
 Gregory, D. H., W. Depere.
 Gregory, Frank, Valders.
 Gregory, J. H., Ashland.
 Gregory, W. W., Stevens Point.
 Griffith, J. C., Milwaukee.
 Grigsby, R. O., Kenosha.
 Grimm, E. G., Milwaukee.
 Grinde, G. A., Cumberland.
 Griswold, F. L., Mazomanie.
 Griswold, C. M., Clintonville.
 Griswold, G. W., Alma Center.
 Grob, A. R., Milwaukee.
 Grosskopf, E. C., Milwaukee.
 Grotjan, Wm. F., Milwaukee.
 Ground, Wm. E., Superior.
 Grove, Wm. E., Milwaukee.
 Groves, R. J., Lodi.
 Gudex, V. A., Eau Claire.
 Guilford, H. M., Madison.
 Guilfoyle, John P., Evansville.
 Gunderson, A., La Crosse.
 Gunderson, C. A. S., Madison.
 Gunderson, G., La Crosse.
 Gunderson, S. B., La Crosse.
 Gunther, Emil, Sheboygan.
 Gunther, Otto, Sheboygan.
 Gunther, T. J., Sheboygan.
 Gunther, Wm. H., Sheboygan.
 Gutsch, Otto J., Sheboygan.
 Guttman, Paul, Cato.
 Guy, J. E., Milwaukee.
 Guyton, E. A., Eau Claire.
 Hackett, J. H., Milwaukee.
 Haddow, N. W., Chippewa Falls.
 Hadley, D. A., Oconomowoc.
 Haessler, F. H., Milwaukee.
 Hafemeister, E. F., Waupaca.
 Hagerman, F. H., Milwaukee.
 Haight, A. L., Crystal Falls, Mich.
 Hagerup, T. A., Dodgeville.
 Hake, Cecil B., Milwaukee.
 Hall, H. H., Webster.
 Hall, R. M., Milwaukee.
 Hall, S. S., Minneapolis, Minn.
 Halsey, R. C., Lake Geneva.
 Halsey, W. H., Milwaukee.
 Hambly, T. J., Hurley.
 Hamilton, D. B., Dodgeville.
 Hammond, A. W., Beaver Dam.
 Hammond, F. W., Manitowoc.
 Hancy, F. C., Watertown.
 Hanko, J. E., Loganville.
 Hanko, Mary E., Plain.
 Hankwitz, P. G., Milwaukee.
 Hanley, W. J., Kenosha.
 Hansberry, P. H., Hillsboro.
 Hansen, John, Glenbulah.
 Hansen, Roy T., Wauwatosa.
 Hanson, John W., Milwaukee.
 Hanson, L. E., Galesville.
 Hanson, W. C., Racine.
 Hardgrove, J. H., Eau.
 Hardy, C. F., Milwaukee.
 Hargarten, L. J., Milwaukee.
 Harkins, J. P., Beaver Dam.
 Harkness, G. W., Waukesha.
 Harlow, G. A., Milwaukee.
 Harper, C. A., Madison.
 Harrington, T. L., Milwaukee.
 Harris, F. M., Green Bay.
 Harter, A. F., Wausau.
 Hartman, R. C., Janesville.
 Harvey, J. R., Footville.
 Harvie, W. D., Fond du Lac.
 Hastings, J. F., Kenosha.
 Hastings, Thos. R., Reedsburg.
 Hathaway, G. J., Superior.
 Hatleberg, C. B., Chippewa Falls.
 Haubrick, H. J., Oshkosh.
 Hausberry, J. S., Waukesha.
 Haushalter, H. P., Milwaukee.
 Hausmann, Wm. V., Florence.
 Hausmann, N. E., Kewaskum.
 Haven, W. S., Racine.
 Havens, Fred Z., Waupun.
 Hawkins, H. M., Milwaukee.
 Hawkins, T. R., Cameron.
 Hayes, D. J., Milwaukee.
 Hayes, E. P., Eau Claire.
 Hayes, E. S., Eau Claire.
 Hayman, C. S., Boscobel.
 Hayman, L. H., Pasadena, Calif.
 Hayward, J. C., Marshfield.
 Head, Louis R., Madison.
 Hecker, Wm., Beloit.
 Heeb, Harry J., Milwaukee.
 Heffron, James J., Milwaukee.
 Hefty, Paul L., New Glarus.
 Hegner, G. T., Appleton.
 Heiden, H., Sheboygan.
 Heidner, A. H., West Bend.
 Heising, A. F., Menomonie.
 Heldt, Thos. J., Detroit, Mich.
 Helgeson, E. J., Evansville.
 Helm, Arthur C., Beloit.
 Helm, Harold M., Beloit.
 Helmes, L. O., Monticello.
 Helz, J. W., Fond du Lac.
 Hemmingsen, T. C., Racine.
 Henderson, M. L., Milwaukee.
 Hendrickson, H., Green Bay.
 Henes, Edwin, Jr., Milwaukee.
 Henke, W. A., La Crosse.
 Henika, G. W., Madison.
 Henken, Jacob F., Racine.
 Henney, C. W., Portage.
 Henrichsen, J. A., Larsen.
 Heraty, J. A., Milwaukee.
 Heraty, J. E., La Crosse.
 Herbert, R. H., La Crosse.
 Herner, W. L., Milwaukee.
 Herrick, Edw. L., Kenosha.
 Herron, A. L., Milwaukee.
 Hertzman, C. O., Ashland.
 Hewson, W. J., Niagara.
 Hicks, L. N., Burlington.
 Hidershede, G. N., Arcadia.
 Higgins, E. G., Melrose.
 Higgins, S. G., Milwaukee.
 Hildebrand, G. J., Sheboygan.
 Hill, B. S., Madison.
 Hill, W. B., Milwaukee.
 Hilliard, H. G., Minong.
 Hinckley, H. G., Merrill.
 Hines, L. L., Rockbridge.
 Hipke, G. A., Milwaukee.
 Hipke, William, Marshfield.
 Hirschboeck, J. G., Forestville.
 Hitz, H. B., Milwaukee.
 Hodges, F. L., Monroe.
 Hodges, Fred J., Madison.
 Hodgson, A. J., Waukesha.
 Hoermann, B. A., Milwaukee.
 Hoermann, R. B., Milwaukee.
 Hoelsky, Henry F., Shullsburg.
 Hoffman, E. E., Sharon.
 Hoffman, Geo. H., West Allis.
 Hoffman, J. G., Hartford.
 Hoffman, Leo, Campbellsport.
 Hoffmier, L. A., Superior.
 Hogan, J. H., Racine.
 Hogan, J. M., Oshkosh.
 Hogue, G. I., Milwaukee.
 Holbrook, A. T., Milwaukee.
 Hollenbeck, N. W., Milwaukee.
 Holmes, B. H., Racine.
 Holtz, H. M., Beaver Dam.
 Holtz, A. P., Seymour.
 Hood, A. J., Milwaukee.
 Horn, A. S., Stoughton.
 Horswell, U. M., Wausaukee.
 Hosmer, M. S., Ashland.
 Houck, Mary P., La Crosse.
 Hougen, Ed., Wisconsin Rapids.
 Hough, A. G., Madison.
 Hovde, A. G., Superior.
 Howard, M. Q., Wauwatosa.
 Howard, T. J., Milwaukee.
 Howe, H. W., Sheboygan.
 Howell, E. C., Fennimore.
 Howell, J. A., Waukesha.
 Howison, N. L., Menomonie.
 Hoyer, A. A., Randolph.
 Hoyer, G. C., Appleton.
 Hoyer, George H., Beaver Dam.
 Hoyer, H. A., Milwaukee.
 Hoyme, G., Eau Claire.
 Hulenthal, J. C., Belmont.
 Huber, Gale W., Minocqua.
 Huber, H. H., Milwaukee.
 Hudek, D. F., Neshkora.
 Huennekens, Jos. H., Milwaukee.
 Huff, F. C., Sturgeon Bay.
 Hughes, J. R., Dodgeville.
 Hugo, D. G., Oshkosh.
 Hume, W. W., Milwaukee.
 Hummel, W. J., Ablemans.
 Hunt, F. O., Fall River.
 Hurd, H. H., Chippewa Falls.
 Hurth, O. J., Cedarburg.
 Hypes, F. E., West Allis.
 Ingersoll, R. S., Madison.
 Irvine, W., Manawa.
 Irwin, G. H., Lodi.
 Irwin, H. J., Baraboo.
 Ishmael, O. E., Madison.
 Ison, G. W., Crandon.
 Iverson, M., Stoughton.
 Jackey, F. D., Thorp.
 Jackson, Arnold, S., Madison.
 Jackson, Edward, Milwaukee.
 Jackson, F. A., Eldorado.
 Jackson, J. A., Madison.
 Jackson, J. A., Mosinee.
 Jackson, R. H., Madison.
 Jacobs, E. C., Durand.
 Jacobs, Simeon A., Milwaukee.
 James, A. W., Muscoda.
 Jamieson, Geo., Lone Rock.
 Jamieson, R. D., La Crosse.
 Jeffers, Dean, West Salem.
 Jeger, H. A., Galesville.
 Jenner, A. G., Milwaukee.
 Jensen, A. B., Menasha.
 Jermain, H. F., Milwaukee.
 Jermain, L. E., Milwaukee.
 Jermain, Wm. M., Milwaukee.
 Jobse, W. P., Milwaukee.
 Johnson, A. T., Sauk City.
 Johnson, Arthur W., Hales Corners.
 Johnson, B. F., Mondovi.
 Johnson, C. G., Milwaukee.
 Johnson, F. G., Iron River.
 Johnson, Fred, Eau Claire.
 Johnson, H. B., Tomah.
 Johnson, H. C., Bruce.
 Johnson, H. C., Madison.
 Johnson, James E., Coon Valley.
 Johnson, Laura M., San Haven, N. Dak.
 Johnson, W. L., Janesville.
 Johnston, G. B., Abbotsford.
 Johnston, H. E., Oshkosh.
 Johnston, W. M., Johnson Creek.
 Johnstone, W. W., Gallup, N. Mex.
 Jones, Asa N., Reedsburg.
 Jones, David T., Wausau.
 Jones, E. H., Weyauwega.
 Jones, G. S., Milwaukee.
 Jones, M. L., Wausau.
 Jones, Richard W., Wausau.
 Jones, Susan, Racine.
 Jones, Walter J., La Crosse.
 Jorgensen, P. P. M., Kenosha.
 Juckem, Geo. J., Howards Grove.
 Judge, Thos. A., Milwaukee.
 Juergens, L. W., Milwaukee.
 Junck, John A., Sheboygan.
 Jurss, G. J., Milwaukee.
 Kahn, Joseph, Milwaukee.
 Kanum, Adolph X., Ashland.
 Kane, J. J., Prairie du Chien.
 Kappelmann, F. W., Milwaukee.
 Karnopp, G. L., Wautoma.
 Kastan, H. E., Beloit.
 Kastner, A. L., Milwaukee.
 Katz, H. M., Cedarburg.
 Kaumheimer, G. J., Milwaukee.
 Kauth, Phillips, Slinger.
 Kay, Harry M., Madison.

- Kaysen, Ralph, Milwaukee.
 Kearns, W. M., Milwaukee.
 Keenan, Harry, Stoughton.
 Keenan, T. P., Lake Geneva.
 Keithley, J. A., Palmyra.
 Keithley, John W., Beloit.
 Keland, H. B., Racine.
 Keller, S. C., Sauk City.
 Kelley, F. L., Merrill.
 Kellner, V. V., Marihel.
 Kelly, John, Cato.
 Kelly, D. M., Baraboo.
 Kelly, W. W., Green Bay.
 Kemper, W. G., Manitowoc.
 Kennedy, Frank H., Iron Ridge.
 Kennedy, W. R., Milwaukee.
 Kenney, G. F., Milwaukee.
 Kenney, R. D., Mendota.
 Kersten, N. M., De Pere.
 Kettelhut, E. J., Milwaukee.
 Keyes, T. B., Chicago, Ill.
 Kiefer, J. G., Milwaukee.
 Kiley, W. E., Milwaukee.
 King, C. F., Hudson.
 King, Jos. M., Milwaukee.
 King, Mollie, Eau Claire.
 Kings, J. S., Milwaukee.
 Kinne, Ed., Elkhorn.
 Kinsman, F. C., Eau Claire.
 Kirmse, A., Tucson, Ariz.
 Kispert, R. W., Green Bay.
 Kissinger, C. A., Milwaukee.
 Kissling, A. C., Milwaukee.
 Klein, Jno. T., Milwaukee.
 Kleinboehl, J. W., Milwaukee.
 Kleinhans, F. A., Milwaukee.
 Kleinhans, Martin A., Milwaukee.
 Kleinschmidt, H. W., Oshkosh.
 Knapp, E. J., Rice Lake.
 Knauf, Arthur J., Sheboygan.
 Knauf, G. Edmund, Sheboygan.
 Knauf, Fred P., Kiel.
 Knauf, N. J., Chilton.
 Knox, C. S., Superior.
 Knox, E. S., Green Bay.
 Knowles, W. L. M., Spooner.
 Knutson, Oscar, Osseo.
 Koch, B. F., Milwaukee.
 Koch, H. C., Whitehall.
 Koch, M. J., Milwaukee.
 Koch, V. W., Janesville.
 Koehler, A. G., Oshkosh.
 Koehler, J. P., Milwaukee.
 Korthals, F. J., Milwaukee.
 Kosanke, F. E., Watertown.
 Kovats, Fred C., Milwaukee.
 Kradwell, W. T., Wauwatosa.
 Kraft, Sigfried, Sheboygan.
 Krahn, A. J., Beaver Dam.
 Krahn, Geo. W., Oconto Falls.
 Kratsch, A. W., Milwaukee.
 Kraut, Elgie, Lancaster.
 Krembs, F. R., Stevens Point.
 Kremers, Alex, Milwaukee.
 Kritchmar, I. H., Milwaukee.
 Kreutzer, A. G., Milwaukee.
 Kristjanson, H. T., Milwaukee.
 Kriz, G. H., Milwaukee.
 Krohn, H. C., New Holstein.
 Krueger, Bernhard, Cudahy.
 Krueger, W. F., Milwaukee.
 Krygiar, A. A., Milwaukee.
 Krzysko, S. L., Milwaukee.
 Kuhn, H. J., Milwaukee.
 Kulig, A. H., Turtle Lake.
 Kunny, Bartholmew, Baldwin.
 Kyes, S. M., Oshkosh.
 Kylo, A. L., Superior.
 Kylo, J. C., Superior.

 La Breck, F. A., Eau Claire.
 Lademann, O. E., Milwaukee.
 Ladewig, A. W., Milwaukee.
 Ladewig, Harry, Milwaukee.
 Ladwig, W. A., Wausau.
 Laird, J. J., Black Creek.
 Lalor, J. C., Sauk City.
 Lamheck, F. J., Milwaukee.
 Langenfeld, P. F., Theresa.
 Langjahr, A. R., Milwaukee.
 Langland, P., Milwaukee.
 Larsen, G. A., Hayward.
 Larsen, L. A., Colfax.
 Lawler, C. F., Hilbert.
 Lawler, G. W., Sussex.
 Lawler, T. S., Milwaukee.
 Lawrence, G. H., Stevens Point.
 Layton, O. M., Fond du Lac.
 Leahy, J. D., Butternut.
 Leaper, W. E., Green Bay.
 Leasum, Charles, Sturgeon Bay.
 Leasum, R. V., Osseo.

 Le Cron, W. L., Milwaukee.
 Lee, Hans, Waukon, Iowa.
 Lee, J. H., Madison.
 Lee, M. A., Superior.
 Leeson, Fred W., Beloit.
 Lehnkering, C. F., Darlington.
 Leicht, Philip, Lake Mills.
 Leitch, G. W., Milwaukee.
 Leitzell, P. W., Benton.
 Leland, A. M., Whitewater.
 Lemmel, J. T., Albany.
 Lemmer, G. N., Spooner.
 Lenfestey, J. P., De Pere.
 Leonard, C. W., Fond du Lac.
 Lettenberger, Jos., Milwaukee.
 Levitas, I. E., Green Bay.
 Lewis, C. H., Milwaukee.
 Lewis, Marion, Milwaukee.
 Lid, T. A., Marinette.
 Liefert, Wu. C., Milwaukee.
 Lillie, O. R., Milwaukee.
 Lindores, J. D., Stevens Point.
 Lindsay, W. T., Madison.
 Linger, Earl A., Oconto.
 Linn, W. N., Oshkosh.
 Littleman, Fred R., Janesville.
 Lippitt, S. Herman, Milwaukee.
 Littig, L. V., Madison.
 Lobedan, E. T., Milwaukee.
 Loehemes, W. T., Milwaukee.
 Lockhart, C. W., Mellen.
 Lockhart, J. W., Oshkosh.
 Loevenhart, A. S., Madison.
 Lohmiller, R. K., Superior.
 Longley, J. R., Fond du Lac.
 Loomis, Edw. A., Janesville.
 Loope, T. E., Iola.
 Looze, J. J., Wisconsin Rapids.
 Lorenz, W. F., Madison.
 Lotz, Oscar, Milwaukee.
 Loughlin, D. M., Milwaukee.
 Loughlin, T. F., Hartford.
 Loughnan, A. J., Oconomowoc.
 Love, I. B., Milwaukee.
 Lowe, R. C., Stevens Point.
 Ludden, H. D., Mineral Point.
 Lueck, G. W., La Crosse.
 Luhman, F. S., Manitowoc.
 Lumsden, Wm., Menomonie.
 Lund, S. O., Cumberland.
 Lundmark, L. M., Ladysmith.
 Lyman, J. V. R., Eau Claire.
 Lynch, D. W., West Bend.
 Lynch, Geo. V., Oshkosh.
 Lynch, H. M., Allenton.

 McArthur, D. S., La Crosse.
 McCabe, Harry, Milwaukee.
 McCabe, P. G., Fond du Lac.
 McCallister, G. H., Avoca.
 McCann, Edith, Milwaukee.
 McCarey, A. J., Green Bay.
 McCarthy, Geo. W., Kenosha.
 McCarthy, H. C., Richland Center.
 McCarty, E. O., Chippewa Falls.
 McClusky, O. W., Kenosha.
 McComb, I. N., Brillion.
 McCorkle, S. C., Milwaukee.
 McCormick, H., New Auburn.
 McCormick, Wm. C., Tomahawk.
 McCracken, J. O., Kenosha.
 McCracken, R. W., Union Grove.
 McCutcheon, W. R., Thorp.
 McDonald, H. F., Hollandale.
 McDougall, G. T., Fond du Lac.
 McDowell, A. J., Soldiers Grove.
 McEachern, W. A., Superior.
 McGarty, M. A., La Crosse.
 McGill, P. G., Superior.
 McGonigal, M., Loyal.
 McGovern, J. J., Milwaukee.
 McGovern, P. H., Milwaukee.
 McGrath, E. F., Appleton.
 McGrath, E., Baraboo.
 McGuinness, H. S., Tomahawk.
 McGuire, Wm. H., Janesville.
 McHugh, Francis T., Chippewa Falls.
 McIndoe, T. B., Rhineland.
 McIntosh, R. L., Madison.
 McKinnon, G. E., Prentice.
 McLoughlin, H. J., Bloomington.
 McMahan, F. B., Milwaukee.
 McMahan, H. O., Milwaukee.
 McMahan, J. P., Milwaukee.
 McNary, J. F., Milwaukee.
 McNaughton, W. I., Milwaukee.
 McNevis, E. S., Green Bay.
 McNicholas, L. T., Racine.
 McRae, J. D., Chippewa Falls.

 Maas, W. C., Rio.
 Macauley, F. M., Wausau.

 MacCollum, C. L. R., Manitowoc.
 MacCornack, E. A., Callao, Peru, S. A.
 MacCornack, R. L., Whitehall.
 MacDonald, W. H., Lake Geneva.
 MacGregor, S. A., Westfield.
 MacKechnie, R. S., Hillsboro.
 Mackoy, F. M., Milwaukee.
 MacLachlan, W. G., McFarland.
 MacLaren, J. B., Appleton.
 MacMillan, A. E., Stevens Point.
 MacRae, M. F., Milwaukee.
 Madison, J. D., Milwaukee.
 Maechtle, E. W., Glencoe, Ill.
 Maercklein, O. W., Milwaukee.
 Maes, C. G., Kimberly.
 Majerus, P. J., Ft. Atkinson.
 Malloy, T. E., Random Lake.
 Malone, F. A., Waterford.
 Malone, T. C., Milwaukee.
 Mandelos, N., Statesan.
 Marek, F. B., Racine.
 Markson, S. M., Milwaukee.
 Marrs, F. A., Stevens Point.
 Marsden, T. H., Fennimore.
 Marsh, H. E., Madison.
 Marsh, J. M., Elkhorn.
 Marshall, F. P., Fond du Lac.
 Marshall, V. F., Appleton.
 Martens, W. A., Milwaukee.
 Martin, H. G., Milwaukee.
 Mason, C. H., Superior.
 Mason, E. L., Eau Claire.
 Mason, V. A., Marshfield.
 Mast, B. W., La Crosse.
 Matthews, J. B., Milwaukee.
 Mauermann, J. F., Monroe.
 Maurer, A. A., La Crosse.
 Maurer, H. C., Beloit.
 May, J. V., Marinette.
 Meachem, J. G., Jr., Racine.
 Meachem, J. G., Sr., Racine.
 Meacher, B. C., Portage.
 Meade, Frank S., Madison.
 Meany, J. E., Manitowoc.
 Meany, S. G., East Troy.
 Mehigan, D. D., Milwaukee.
 Meikeljohn, D. V., Fond du Lac.
 Melas, W. G., Beloit.
 Melster, W. H., Milwaukee.
 Mensing, Edmund, Milwaukee.
 Merrill, W. G., Wisconsin Rapids.
 Merten, A. N. E., Milwaukee.
 Merten, P. J., Milwaukee.
 Mertens, H. G., Bayfield.
 Messmer, Clemens, Milwaukee.
 Meusel, Harry, Oshkosh.
 Meyers, J. M., Superior.
 Meyst, C. H., Milwaukee.
 Middleton, W. S., Madison.
 Midelfart, H. C., Eau Claire.
 Mieding, A. E., Milwaukee.
 Mielke, E. F., Appleton.
 Milbee, H. H., Marshfield.
 Millard, F. D., Milwaukee.
 Miller, C. D., Milwaukee.
 Miller, D. C., Marshfield.
 Miller, E. A., Clintonville.
 Miller, E. W., Milwaukee.
 Miller, H. C., Whitewater.
 Miller, Thos., Oconomowoc.
 Miller, W. J., La Valle.
 Miller, W. P., Milwaukee.
 Miller, W. C., Madison.
 Mills, N. P., Appleton.
 Miloslavich, E. L., Milwaukee.
 Minahan, J. J., Chilton.
 Minahan, J. R., Green Bay.
 Minahan, P. R., Green Bay.
 Minahan, R. E., Green Bay.
 Mishoff, I. D., Milwaukee.
 Mitchell, E. J., Brodhead.
 Mitchell, F. W., Ogea.
 Mitchell, R. E., Eau Claire.
 Mitchell, R. S., Appleton.
 Mitchell, S. R., Milwaukee.
 Mock, F. C., Milwaukee.
 Moe, H. B., Blanchardville.
 Moeller, J., Milwaukee.
 Mollinger, S. M., Milwaukee.
 Monroe, W. B., Monroe.
 Monstad, J. W., New London.
 Montgomery, A., Milwaukee.
 Montgomery, R. C., Madison.
 Moore, G. E., Antigo.
 Moore, L. A., Monroe.
 Moore, W. N., Appleton.
 Moreaux, Felix, Luxemburgh.
 Morgan, J. F., Durand.
 Morgenroth, F. C., Milwaukee.
 Morgenroth, H. W., Oshkosh.
 Mork, Ole, Blair.

- Morley, F. E., Viroqua.
 Morris, E. K., Merrill.
 Morris, R. C., Ft. Atkinson.
 Morris, S. I., Madison.
 Morrison, Wm. W., Edgerton.
 Mortenson, O. N., Wisconsin Rapids.
 Morter, Clyde W., Milwaukee.
 Morter, R. E., Milwaukee.
 Morton, H. H., Cobb.
 Mowry, W. A., Madison.
 Muckerheide, A. J., Milwaukee.
 Mudroch, J. A., Columbus.
 Mueller, G. F., Milwaukee.
 Mueller, W. E., Green Bay.
 Mulvaney, F. M., Marion.
 Munkwitz, F. H., Milwaukee.
 Munn, W. A., Janesville.
 Murphy, E. R., Antigo.
 Murphy, F. D., Milwaukee.
 Murphy, S. W., Kenosha.
 Murphy, W. J., Milwaukee.
 Muscus, H. B., Eau Claire.
 Myers, C. E., North Freedom.
 Myers, E. A., Superior.
 Myers, I. A., Cottage Grove.
 Myrick, A. L., De Sota.
- Nadeau, A. T., Marinette.
 Nadeau, E. G., Green Bay.
 Nason, W. C., Ripon.
 Natvig, G. A., Prairie Farm.
 Nause, F. A., Sheboygan.
 Nauth, D. F., Kiel.
 Nedry, C. J., Chippewa Falls.
 Nee, Frank, Spring Green.
 Neff, E. E., Madison.
 Neilson, G. W., Milwaukee.
 Neis, F. P., Thorp.
 Nelson, A. L., Racine.
 Nelson, A. N., Clear Lake.
 Nelson, James D., Milwaukee.
 Nelson, N. O., Madison.
 Nelson, O. O., Madison.
 Nelson, W. V., Milwaukee.
 Nesbit, W. M., Madison.
 Newmann, Wm. H., Sheboygan.
 Newell, Frank, Burlington.
 Newell, Geo. W., Burlington.
 Newman, Robt., Chicago, Ill.
 Newton, J. E., Hudson.
 Nicely, W. E., Waukesha.
 Nichols, F. C., Wausau.
 Nichols, R. M., Sheboygan Falls.
 Nichols, W. T., Milwaukee.
 Nickels, A. C., Watertown.
 Niland, P. J., Milwaukee.
 Nixon, H. G. B., Hartland.
 Nixon, R. T. A., Brookfield.
 Noble, J. B., Waukesha.
 Nobles, Byron O., Milwaukee.
 Noer, Julius, Berkeley, Calif.
 Noer, P. J., Wabeno.
 Nolte, L. G., Milwaukee.
 Notbohm, D. R., White Lake.
 Notbohm, W. R., Dousman.
 Nott, G. W., Racine.
 Nowack, L. H., Watertown.
 Noyes, G. B., Stone Lake.
 Nuzum, T. W., Janesville.
 Nystrum, Ray, Medford.
- O'Brien, H. N., Darien.
 O'Brien, J. M., Oregon.
 O'Connell, D. C., Milwaukee.
 O'Connell, J., Watertown.
 O'Connell, J. E., Milwaukee.
 O'Conner, W. F., Ladysmith.
 O'Donovan, T. W., Milwaukee.
 O'Hara, J. J., Milwaukee.
 O'Leary, T. J., Superior.
 O'Leary, T. J., East Troy.
 O'Neal, Orville, Ripon.
- Oakland, H. G., Milwaukee.
 Oatway, W. H., Waukesha.
 Oberehmt, B., Milwaukee.
 Ogden, H. V., Milwaukee.
 Oliver, T. J., Green Bay.
 Olmsted, A. O., Green Bay.
 Olson, A. L., Stoughton.
 Olson, Chresten, Racine.
 Olson, E. A., Osseo.
 Olson, R. E., Milwaukee.
 Omsted, Nils, Stoughton.
 Orchard, H. J., Superior.
 Orton, Susanne, Darlington.
 Ott, H. A., Dale.
 Ottow, A. F., Beloit.
 Ouellette, C. J., Oconto.
 Overbaugh, J. H., Hartland.
 Overton, O. V., Janesville.
 Ovitz, E. G., Laona.
- Owens, W. H., Milwaukee.
 Ozanne, I. E., Neenah.
 Ozanne, J. T., Oshkosh.
- Packard, C. D., Rhinelander.
 Palmer, J. A., Arcadia.
 Palmer, W. H., Janesville.
 Palt, Joseph, Kenosha.
 Panetti, E. J., Milwaukee.
 Panetti, P. A., Hustisford.
 Parke, Geo., Viola.
 Parker, A. S., Clinton.
 Parker, T. G., Racine.
 Partridge, C. D., Cudahy.
 Partridge, O. F., Mattoon.
 Paschen, James G., Milwaukee.
 Patek, A. J., Milwaukee.
 Patten, Leigh K., Chicago, Ill.
 Payne, A. L., Eau Claire.
 Pearce, W. J., Dodgeville.
 Pearson, L. M., Tomahawk.
 Pease, W. A., Jr., Rio.
 Peck, W. W., Darlington.
 Pederson, A. M., Scandinavia.
 Peehn, F. G., Corliss.
 Pegram, J. W., Milwaukee.
 Pelton, L. H., Waupaca.
 Pember, A. H., Janesville.
 Pember, J. F., Janesville.
 Pepin, B. I., Richland Center.
 Perrin, G. H., Menomonee Falls.
 Perrin, H. E., Star Prairie.
 Perry, Gentz., Kenosha.
 Peters, H. A., Oconomowoc.
 Peterson, C. F., Independence.
 Peterson, E. F., Wauwatosa.
 Peterson, G. E., Waukesha.
 Peterson, R. O., Racine.
 Petzke, E. A., Hixton.
 Pfeffer, E. N., Milwaukee.
 Pfeiffer, F. J., New London.
 Pfeiffer, H. A., Milwaukee.
 Pfeil, R. C., Milwaukee.
 Pfister, Franz, Milwaukee.
 Pfisterer, Frank W., Markesan.
 Phalen, C. S., Sparta.
 Phelps, E. J., Grand Haven, Mich.
 Phillips, T. C., Milwaukee.
 Pickering, C. R., Museoda.
 Pickett, S. L., Bayfield.
 Pierson, P. R., Readstown.
 Pink, J. J., Milwaukee.
 Pinkerton, W. T., Prairie du Chien.
 Pirsch, Margaret, Kenosha.
 Pitz, M. N., Neenah.
 Plahner, D. S., Milwaukee.
 Pleyte, A. A., Milwaukee.
 Plumlee, R. S., Brooklynn.
 Podlasky, H. B., Milwaukee.
 Pomainville, Frank, Wisconsin Rapids.
 Pomainville, Geo., Nekeosa.
 Pope, F. J., Racine.
 Pope, F. W., Racine.
 Poser, E. M., Columbus.
 Post, C. C., Barron.
 Potter, J. V., New London.
 Potter, R. P., Marshfield.
 Powell, J. J., Galesville.
 Powers, Fred H., Beaver Dam.
 Powers, H. W., Milwaukee.
 Powers, J. W., Milwaukee.
 Pratt, Geo. N., Appleton.
 Pratt, Maud, Independence, Ia.
 Pretts W. W., Platteville.
 Prill, H. F., Augusta.
 Prince, L. H., Waukesha.
 Proctor, T. C., Sturgeon Bay.
 Prouty, W. A., Burlington.
 Puestow, K. L., La Crosse.
 Pugh, G. A., Kenosha.
 Pullen, A. J. N., Fond du Lac.
 Puls, A. J., Milwaukee.
 Purell, H. E., Madison.
 Purtell, E. J., Milwaukee.
 Purtell, J. A., Milwaukee.
- Quade, E. B., Wausau.
 Quam, Jacob, Deerfield.
 Quick, E. W., Milwaukee.
 Quigley, L. D., Green Bay.
 Quinn, R. B., Darlington.
- Raasock, Halfdan, Nelsonville.
 Radloff, A. C., Plymouth.
 Ragan, W. F., Milwaukee.
 Ragan, W. J., Shawano.
 Randall, M. W., Blue River.
 Rasmussen, Hans, Milwaukee.
 Rath, R. R., Granton.
 Rathert, E. T., Chilton.
 Ravn, E. O., Merrill.
 Ravn, Michael, Merrill.
- Raymond, R. G., Brownsville.
 Reagles, Robt., Arlington.
 Reay, G. R., La Crosse.
 Rector, A. E., Appleton.
 Redelings, T. J., Marinette.
 Reeve, J. S., Appleton.
 Reeves, S. L., Albany.
 Regan, E. D., Milwaukee.
 Rehling, C. F., Fremont.
 Rehorst, J. J., Fond du Lac.
 Reich, W. F., Milwaukee.
 Reichert, J. E., West Bend.
 Reineck, C., Appleton.
 Reinert, E. N., Cleveland.
 Reinhardt, J. Paul, Fountain City.
 Reinhardt, D. B., Merrill.
 Reinke, C. C., Milwaukee.
 Reis, G. W., Junction City.
 Remer, Wm. H., Chaseburg.
 Reynolds, Bertha, Lone Rock.
 Rheineck, A. F., Milwaukee.
 Rhode, H. P., Green Bay.
 Rice, D. S., Stevens Point.
 Rice, E. M., Milwaukee.
 Rice, Fern A., Delavan.
 Rice, R. H., Milwaukee.
 Richards, C. A., Rhinelander.
 Richards, C. G., Kenosha.
 Richardson, W. C., Walworth.
 Ridgway, E. T., Elkhorn.
 Ridley, S. R., Mineral Point.
 Riegel, J. A., St. Croix Falls.
 Riehl, F. W., Milwaukee.
 Riley, E. A., Park Falls.
 Riley, P. E., Eau Claire.
 Ringo, H. F., Montreal.
 Riordan, J. F., Berlin.
 Ripley, G. H., Kenosha.
 Ripley, H. M., Kenosha.
 Ritchie, G. A., Appleton.
 Robb, J. J., Green Bay.
 Robbins, G. H., Madison.
 Roberts, D. W., Milwaukee.
 Roberts, J. A., Portage.
 Roberts, R. R., Beaver Dam.
 Robinson, H. A., Kenosha.
 Robinson, J. F., Eau Claire.
 Roby, H. S., Milwaukee.
 Rock, J. N., Milwaukee.
 Rock, John W., Milwaukee.
 Rodecker, R. C., Holcombe.
 Roethke, R. W., Milwaukee.
 Roger, R. B., Neenah.
 Rogers, A. W., Milwaukee.
 Rogers, E. H., Stevens Point.
 Rogers, F. C., Oconomowoc.
 Rogers, John W., Waukesha.
 Rogers, Malcolm F., Milwaukee.
 Rogers, P. F., Milwaukee.
 Rohr, J. H., North Milwaukee.
 Rolff, Theo. H., Milwaukee.
 Rollefson, C. J., Superior.
 Rose, Felix, Green Bay.
 Rose, H. L., Kenosha.
 Rose, J. F., Lena.
- Rosenberger, A. I., Milwaukee.
 Rosenberry, A. B., Wausau.
 Rosenheimer, A. M., Fox Lake.
 Rosholt, J. A., La Crosse.
 Ross, Geo. L., Kenosha.
 Ross, H. R. T., Ladysmith.
 Ross, J. M., Richland Center.
 Ross, P. M., Milwaukee.
 Roth, W. C., Franksville.
 Rothman, L., Wittenberg.
 Rouse, H. A., Brownstown.
 Rowley, J. A., La Crosse.
 Rowley, A. G., Middleton.
 Rowley, B. B., Milwaukee.
 Ruckle, W. M., Wisconsin Rapids.
 Rudolf, A. J., Milwaukee.
 Rudolf, S. F., Green Bay.
 Rueth, J. E., Milwaukee.
 Ruethin, K. A., Barron.
 Ruhland, G. C., Syracuse, N. Y.
 Ruka, E. A., Muscoda.
 Rundell, A. S., Beloit.
 Rupp, L. G., Sullivan.
 Ruschaupt, L. F., Milwaukee.
 Russell, F. G., Milwaukee.
 Russell, H. C., Milwaukee.
 Russell, R. J., Milwaukee.
- Ryan, C. E., Appleton.
 Ryan, D. J., Neenah.
 Ryan, E., Sheboygan.
 Ryan, E. R., Milwaukee.
 Rybak, F. S., Milwaukee.
 Rydell, C. B., Superior.
- Sachse, F. W., Hartford.
 Salbreiter, W. P., Racine.

- Sandboru, M. J., Appleton.
 Sanders, J. B., Rice Lake.
 Sarazin, F. C., Superior.
 Sargent, H. W., Wauwatosa.
 Sargent, J. C., Milwaukee.
 Sarles, W. T., Sparta.
 Sarvela, H. L., Superior.
 Sattre, O. M., Rice Lake.
 Saunders, Geo., Superior.
 Saunders, O. W., Green Bay.
 Sauthoff, Aug., Mendota.
 Sauthoff, Mary, Mendota.
 Savage, G. F., Pt. Washington.
 Savage, G. T., Milwaukee.
 Sayle, R. G., Milwaukee.
 Sayles, L. W., Baraboo.
 Scantleton, J. M., Sparta.
 Schaefer, C. O., Racine.
 Schaper, H., Tudar, Alb., Can.
 Schee, Jno., Westby.
 Scheele, F. M., Waukesha.
 Scheid, M. M., Rosendale.
 Schein, J. E., Oshkosh.
 Schell, Ida L., Milwaukee.
 Schemmer, A. L., Colby.
 Schenrich, L. G., Tomah.
 Schiek, I. E., Rhineland.
 Schiller, L., Milwaukee.
 Schlag, R. A., Prairie du Sac.
 Schlapik, A., Milwaukee.
 Schlegel, H. T., Wausau.
 Schleuter, U. A., Milwaukee.
 Schloemer, A. J., Jackson.
 Schloemilch, A., Portage.
 Schlomovitz, B. H., Milwaukee.
 Schlossman, B., Washburn.
 Schmeling, A. F., Columbus.
 Schmidt, E. S., Green Bay.
 Schmidt, F. M., Eagle.
 Schmidt, H. G., Milwaukee.
 Schmidt, H. E., Wauwatosa.
 Schmidt, J. A., Brillion.
 Schmitt, Felix, Milwaukee.
 Schmitt, Gns, Milwaukee.
 Schmitt, Louis, Milwaukee.
 Schmitt, Phil., Milwaukee.
 Schneider, C. C., Milwaukee.
 Schneider, Fred, New London.
 Schneider, J. F., Oshkosh.
 Schneider, J., Milwaukee.
 Schneiders, E. F., Madison.
 Schnell, W. H., Superior.
 Schoen, Chas., Milwaukee.
 Schoen, R. E., Beaver Dam.
 Scholler, E. W., Milwaukee.
 Scholz, G. M., Milwaukee.
 Scholz, H. F., Thiensville.
 Schoofs, O. P., Milwaukee.
 Schowalter, R., Milwaukee.
 Schram, C. F. N., Beloit.
 Schrockenstein, R. S., Marion.
 Schroeder, E. L., Shawano.
 Schroeder, H. F., Marinette.
 Schubert, C. K., Madison.
 Schubert, F. J., Milwaukee.
 Schuenzel, L. G. A., Milwaukee.
 Schulberg, P. A., Montevideo, Minn.
 Schuldt, C. M., Platteville.
 Schumm, H. C., Milwaukee.
 Schwartz, A. B., Milwaukee.
 Schwartz, B. J., Kenosha.
 Schwarz, S. G., Humbird.
 Schweitzer, G. J., Milwaukee.
 Scollard, J. T., Milwaukee.
 Scott, B. E., Berlin.
 Seaman, G. E., Milwaukee.
 Searle, D. R., Superior.
 Sears, H. B., Madison.
 Sedlmair, Franz, Bowler.
 Seeger, S. J., Milwaukee.
 Seegers, F. W., Milwaukee.
 Seele, F. S., Milwaukee.
 Seelman, J. J., Milwaukee.
 Seemann, W. O., Eau Claire.
 Seiherth, J., Lugerville.
 Seidel, J. G., Warrens.
 Senn, C. U., Ripon.
 Senn, F. C., Oshkosh.
 Senn, Geo., Green Bay.
 Senn, U., Milwaukee.
 Sevringhaus, E. L., Madison.
 Sexton, W. G., Marshfield.
 Sharpe, H. A., Verona.
 Sharpe, H. R., Fond du Lac.
 Sharpe, J. J., Fond du Lac.
 Shastid, T. H., Superior.
 Shaw, A. O., Ashland.
 Shaw, B. W., Waunakee.
 Shaw, J. L., Manitowoc.
 Shaykett, F. E., Brandon.
 Shearer, A. T., Edgerton.
 Shearer, F. E., Edgerton.
 Shearer, H. A., Edgerton.
 Sheehy, T. J., Tomah.
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New Officers Selected for American Medical Association: Dr. Olin West Succeeds Dr. Simmons

Dr. Olin West, Secretary of the American Medical Association and Acting General Manager since September, 1924, was formally elected to the General Managership by the Board of Trustees on Saturday, November 22nd. At the same time the Board announced the election of Dr. Morris Fishbein, Assistant Editor of the Journal of the A. M. A., as Editor and the election of Mr. Will C. Braun as Business Manager.

Announcement of these selections were made at the last meeting of the Secretaries of the constituent state associations assembled at the Association for the Annual Conference. The elections mark the adoption of a new policy of the Association in separating the office of General Manager

and Editor formerly held by Dr. George H. Simmons, General Manager emeritus.

Dr. Olin West was born at Gadsden, Alabama, July 12, 1874. Upon completion of his common and high school education he attended Harvard College and received his Ph.C. and M.D. degrees at Vanderbilt University. He then became Assistant in Materia Medica and Therapeutics in the Medical Department of Vanderbilt and was later chosen Associate Professor of Chemistry.

Following twelve years of active practice at Nashville, Dr. West became Director of the Bureau of Rural Sanitation of the Tennessee Board of Health and then State Health Officer. During this time he gave eight years' service as Secretary of the Tennessee State Medical Association.

Dr. West was selected as Field Secretary of the American Medical Association in April, 1922. Upon the death of Secretary Craig, Dr. West was elected Secretary of the Association in November, 1922. Since the retirement of Dr. Simmons last September, Dr. West has been Acting General Manager of the Association.

Dr. Morris Fishbein was born in St. Louis, July 22, 1889. He lived in Indianapolis from 1892 to 1906, when he left to attend the University of Chicago. He received his B.Sc. degree from the University of Chicago in 1910, and his M.D. degree from Rush Medical College in 1912. At the time of graduation, he received the Alumni Fellowship in Pathology under which he did research in association with Drs. Ludvig Hektoen and E. R. LeCount, publishing the following papers: "A Method of Selection of Donor for Blood Transfusion," *The Journal of the American Medical Association*, September 7, 1912, Vol. LIX.; "Contribution to the Bacteriology of Peritonitis, with Special Reference to Primary Peritonitis," *American Journal of the Medical Sciences*, October, 1912, No. 4, Vol. CXLIV.; "Isoagglutination in Man and Lower Animals," *The Journal of Infectious Diseases*, Vol. XII., No. 2, March, 1913; "Illuminating-Gas Poisoning," *The Journal of the American Medical Association*, March 8, 1913, Vol. LX.; "Functional Test (Phenolsulphone-Phthalein) of the Kidney in Scarlet Fever," *The Journal of the American Medical Association*, October 11, 1913, Vol. LXI. He also served as house-physician in the Durand Hospital of the McCormick Institute for Infectious Diseases, 1912-1913.

In August, 1913, following the death of Dr. E. E. Hyde, he became assistant to Dr. George H. Simmons, which position he has held up to the present time. While working in this capacity, he became co-author with Dr. Oliver T. Osborne of "The Handbook of Therapy," published by the American Medical Association.

He is associate in the History of Medicine in the University of Chicago School of Medicine, and secretary-editor of the Society of Medical History of Chicago, to whose bulletin he has also contributed articles on medical history.

He is a frequent contributor of lay periodicals, and articles by him have appeared in the *American Mercury*, *The Chicago Daily News*, the *Bookman*, the *Woman's World*, *Forum*, *Time*, etc. He also

edits for the North American Newspaper Alliance, a syndicate of seventy-two metropolitan newspapers, a weekly column on health, and has written several articles on important advances in medical science, which have been syndicated through these newspapers.

Mr. Will C. Braun was born in Ripley, Ohio, August 24, 1868. He became connected with the American Medical Association as subscription manager and solicitor of advertising on November 1, 1891. He worked in this capacity under various editors of *The Journal*, becoming associated with Dr. George H. Simmons in the affairs of the Association when the latter came to Chicago in 1898.

Under Mr. Braun, the subscription and advertising departments have developed remarkably, the income handled from these two sources approximating well over \$1,000,000.00. He was, throughout the entire period of Dr. Simmons' incumbency, a constant adviser in the financial and other affairs of the Association. In June, 1913, he was elected associate-fellow of the Association by the House of Delegates in appreciation of his services. He is widely known to the medical interests of the country for his efficiency and for his genial personality.

THE TOXEMIAS OF PREGNANCY FROM AN OPTHALMOLOGIC STANDPOINT

Robert Cartwright Cheney, Boston (*Journal A. M. A.*, Nov. 1, 1924), discusses the ophthalmic aspects of the toxemias of pregnancy. Fundus changes are most common in the latter three months of pregnancy, although cases have been reported as occurring as early as the third or fourth month. If a toxemic patient shows a retinitis, the chances are four to one that she has nephritis, and should be carefully followed up for over a year, not being placed in the acute toxemic class and allowed to become pregnant again, unless urine, blood pressure, etc., were absolutely normal during this period. The immediate prognosis for life of patients showing retinitis is good in many cases in that, if properly handled, the nephritic patient may live for years; but in the long run the prognosis is poor. If the retinitis persists for a considerable length of time, post-partum, the prognosis is naturally much worse. If the retinitis is discovered at any time previous to the last two weeks or so of the pregnancy it should be terminated. As a rule, the retinitis of the acute toxemia of pregnancy is an acute toxic rather than a vascular affair. Fundus changes may vary from a few retinal hemorrhages to the classical picture of albuminuric retinitis. Separation of the retina is not uncommon, and may occur with or without retinitis. The routine examination of the fundi is of distinct value to the obstetrician. It has been asserted that, if properly handled, cases of toxemia would not be allowed to progress to the point at which fundus changes appeared, and fundus changes are, without doubt, found only in the severer cases. At the Boston Lying-in Hospital most of the extensive changes Cheney found were in very sick patients, more or less dumped on the hospital at the last moment, and who, if they had been in the clinic, would never have been allowed to get into such a condition. However, granting all that, the fundus changes do come on quite early in some cases, give a distinct lead to the etiology, prognosis, etc., and, in some instances in which there is doubt about continuing the pregnancy, may be the determining factor in deciding to terminate it. Furthermore, considered merely in the light of research, it is quite possible that a routine eye examination in large series of carefully grouped and studied cases of toxemia may produce interesting and valuable information.

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SERVICE AVAILABLE

There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 558 Jefferson Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. *Medical Books* will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. *Physicians' Exchange Column* is open to all members without charge.

4. *New Scientific Publications* listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. *State Laws* and departmental rulings can be secured through the Secretary's office.

6. *Legal Advice* upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

7. *Legislative Service.* Upon request members may secure information upon any measure introduced in the 1925 Wisconsin Legislature.

FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

MERRY CHRISTMAS.

WE all too often think of our Journals as something inanimate,—only a compilation of material. Yes, they may be that but they are as well the composition of men whose hearts are in their work.

Your Wisconsin Medical Journal has an Editorial Board, the Managing Editor, the Assistant, the capable medical proof reader, and the many employecs of a large printing establishment. The contributors vary from month to month and the Journal may not be their first interest. But for the staff the Journal is a living thing. It represents their careful thought and work and sometime they hope it may be representative of their ideals.

This is all but an introduction to the Journal wishing to you and yours a very merry Christmas and now you know that is a personal message from all of us to each of you.

CARDIAC CLINICS

IT IS authoritatively held that two per cent of the population have heart disease in serious enough form to call for medical supervision. We know, however, that the number actually availing themselves of the facilities the medical profession offers is but a pitiable fraction of those afflicted.

Here is presented another need of bridgework—some means of bringing together the people, on the one side, who need the life saving guidance of medical science and, on the other side, the practitioners of medicine who are prepared to give that service. This has been successfully done in the instance of tuberculosis. Disinterested, popular educational publicity has been the tool which has done so much for the victims of the latter dis-

ease—and incidentally for the physicians—by bringing patients under observation and to diagnosis in the early, instead of the late, stages of the disease. As a result, the handling of the tuberculous is no longer the bugbear to the medical attendant that it was twenty years ago.

A similar contribution is now promised in the instance of Cardiac Diseases. In another column, announcement is made of the addition of a Heart Disease Division to the work of our State Tuberculosis Association. It is obvious that a rapidly increasing number of persons will present themselves for diagnosis and to secure prescription of a regimen which will assure the maximum life span. It remains for us to welcome these applicants and to become increasingly competent to treat them as well as the present limitations of our art permit.—W. R.

NEW OFFICERS OF THE A. M. A.

IT is our pleasure to announce elsewhere, in this issue the selections of the Board of Trustees of the American Medical Association for the permanent officers of the Association. The new officers need no praiseful introduction to the readers of this Journal. Each has but received recognition of years of unselfish service in the interests of the profession of this country. Their past efforts are earnest of the future.

To the new officers we extend the most cordial congratulations and good wishes from the profession of Wisconsin. And to this we add our assurance of all co-operation in their present and future endeavors.

NEXT MONTH—THE LAY ISSUE.

THE January issue of this Journal will be our Second Annual Lay Issue. Months have been spent in its preparation and its contributors are from every part of the state.

We hope that it will truly represent the thoughts and beliefs of the medical profession in Wisconsin and that it will be a number you will consider a privilege to have sent to your lay friends. And by the way, have you sent in your names?

We asked for suggestions following publication of the first lay issue. We are grateful for those submitted and we are happy to say that all will be incorporated in the coming number.

NOW IS THE TIME.

WHEN you receive this Journal you will only have two weeks more until Christmas. Do not forget that you have the opportunity of giving three friends a worthwhile gift in a year's subscription to *Hygeia* at a cost of but six dollars. If you have mislaid your blank just send in the names to the State Society with your check.

THE PHYSICIAN'S PART

AT A RECENT medical meeting much of the time of the clinics and papers was devoted to the diagnosis and the differential diagnosis of diseases. Almost without exception, every speaker stressed and emphasized the value of the laboratory in diagnosis. This is as it should be. As an aid to establishing a diagnosis, the value of the laboratory can hardly be over-emphasized. This is especially true when the reports are returned positive. While a leucocytosis does not make a diagnosis of appendicitis, or a leukopenia a diagnosis of typhoid fever, the presence of the typhoid bacillus in the blood in a case presenting symptoms and signs of typhoid pretty well clinches the diagnosis. A membrane on the tonsil of an acutely ill child may be due to other causes than diphtheria, but if the laboratory reports the presence of Klebs-Loeffler bacilli in the swab or culture, antitoxin is certainly indicated. History, symptoms and physical signs may be suggestive of tuberculosis disease; but a positive sputum added thereto eliminates all doubt. A typical temperature curve may arouse our suspicions as to the presence of malaria, but the positive report of the plasmodium in the blood indicates but one line of therapy.

So much for the positive results of the laboratory report. Yes, the value of these are for all practical purposes absolute; but how about the negative findings? Are we fair to the patient, laboratory and ourselves when we discuss the diagnosis of diphtheria, malaria or tuberculosis simply because the report came back negative? Admitted that it is at times difficult to obtain a good swab from a struggling infant; but is that the laboratory's fault? Not much. Neither is the laboratory to blame if the blood to be examined for the plasmodium is taken at the wrong time

or the specimen to be examined for tuberculosis bacilli consists of nothing but saliva.

If we would obtain the best results from the laboratory let us not be unmindful of the fact that more than 50 per cent of the work is to obtain the right kind of specimen; and let us also remember that one positive report is worth more than any number of negative ones. This is particularly apt in tuberculosis because in this disease it may be necessary to examine three, four, yes, sometimes six specimens before a positive report is obtained.

State and private laboratories are located in all parts of the state. Let us make more use of these valuable aids, but let us be certain that our own technique is not at fault.—O. L.

THE JOURNAL CLINIC

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The University of Wisconsin

EPISTAXIS

BY THOMAS L. TOLAN, M.D.

MILWAUKEE

Epistaxis or bleeding from the interior of the nose is due to a variety of local and constitutional conditions. It is rather a symptom than a disease. It is common in children between the ages of five and fourteen years and, during this period, is often associated with the exanthemata. In middle life it is rare and in old age it usually occurs as a result of some constitutional disease or local neoplasm. In former years it was a great prodromal symptom of typhoid fever. As a rule, when properly managed, nasal hemorrhage is not of serious import except in arteriosclerosis, malignancy, or hemophilia.

The commonest site of hemorrhage is at the locus of Kiesselbach or the anterior, inferior portion of the cartilaginous septum. According to Castelbury it occurs at this point in over 90 per cent of all cases of nasal hemorrhage.

The reason for this is quite evident. This portion of the mucous membrane of the nose is nearest the outside. It is more exposed to the elements than any other part of the mucous membrane. It is easy to irritate by scratching with the finger nail or rubbing with a handkerchief. With adults, as well as children, one is unable to sufficiently

impress the patient with the necessity of keeping the hands away.

Etiology: The causes may be divided into local and general. Among the common, local causes which predispose to this condition are:

1. Picking the nose (the so-called nose pickers—ulcer of the septum).
2. Traumatism from intranasal operations.
3. Deviation of the cartilaginous septum with resultant irritation due to dust and dirt.
4. Acute rhinitis.
5. Atrophic rhinitis.
6. Varicose ulcers of the septum.
7. Neoplasm, both benign and malignant.
8. Granuloma:

Tuberculosis, syphilis and leprosy.

The common, general causes are the febrile diseases, the blood dyscrasias—*anemia*, *hemophilia*, etc., diseases of the heart and kidneys and vicarious hemorrhage.

Symptoms: The outstanding symptom is hemorrhage. However, one must not be misled as to the bleeding point by the source. Very often a patient will say that the bleeding point must be in the throat or back of the nose, because most of the blood is expectorated. This is explained by the fact that the patient either has a wide septal deviation which makes it easier for the blood to run back, or the patient's posture is such that the blood presents itself posteriorly, or both.

Diagnosis: Same is made by an intranasal examination. Despite the fact that the patient may be bleeding considerably, it is always advisable to clean the nasal cavity, removing all clots and packing, should first aid have been administered, and try to locate the bleeding point. This does not necessitate a special knowledge of the nose. Usually, as stated, the bleeding point is in the anterior portion of the septum and the treatment should be directed to this spot instead of filling the nose to the discomfort of and danger to the patient. After this the diagnosis is readily made.

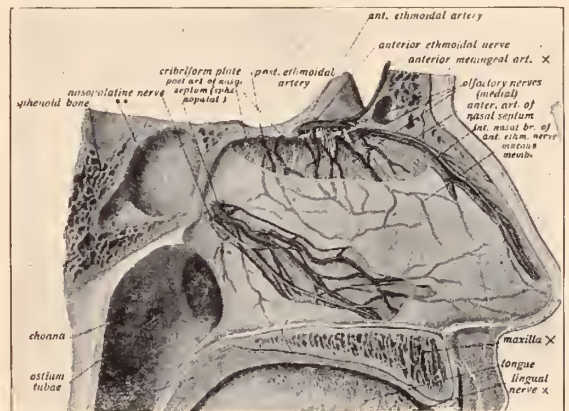
Prognosis: Usually good.

Treatment: This necessarily depends upon the cause of the trouble. Usually, in cases due to general conditions, the patient is under care for the constitutional trouble, the nasal hemorrhage only being a complication and is checked promptly.

As to the local treatment, on perusing the literature it is quite striking to note the number of methods proposed in the checking of nasal hemorrhage. The most commonly suggested treatment is

that of packing, and some of the methods and materials used speak for misplaced ingenuity. There are those who suggest plain packing; others who use finger cots well lubricated and packed with gauze; still others suggest spongy rubber enclosed in thin skin, so as to mold itself to the contour of the inside of the nose. Then there are those who use the different forms of astringents, such as silver nitrate in varying strengths, chromic acid, adrenalin, etc. A common method of procedure is the use of local applications of thromboplastin. Again still others resort to intramuscular subcutaneous or intravenous injections of hemostatics.

Scarcely any space is given in the textbooks or literature to the most logical procedure in stopping a hemorrhage, and that is the tying off of the offending blood vessel after it has been located. This, of course, applies to those cases where the hemorrhage is in Kiesselbach's point.



The accompanying diagram illustrates the arterial blood supply of the septum. There are two main branches supplying the septum—the anterior septal artery, which is a branch of the ophthalmic, and the posterior artery of the septum, which is a branch of the sphenopalatine and, in turn, the internal maxillary artery. Therefore, all that is necessary to do, in order to check the hemorrhage at this point, is to tie off posteriorly to get the branch from the posterior septal artery, and superiorly to get the branch from the anterior artery of the septum. Often it is only necessary to tie off one of these, but due to the rich anastomosis two sutures are frequently necessary. The first procedure is quite simple after cleansing the point. The posterior suture is taken first with a Yankauer intranasal suture needle and, if necessary, the superior suture is taken. This practically always stops the bleeding. Sometimes around the needle

points there is a very slight oozing which is controlled by placing a small pledget of cotton over it. Usually this is done anyway with a pledget saturated with three per cent mercurochrome which is removed daily for two or three days. The stitches are removed on the fourth or fifth day and patient is advised to use an emolient to prevent crusting. In septal perforations with crusting and frequent hemorrhages, the bleeding can be stopped in this manner while clearing up the perforation. In a case of telangiectasis of the mucous membrane of the nose with bleeding, the symptom is cleared up in this manner.

The facility with which it can be accomplished and the number of cases to which it lends itself, recommend it being used more frequently than our present method of excessive packing which is so uncomfortable to the patient, to say nothing of the danger of ear and sinus complications.

In the small percentage of cases where the bleeding point is on the lateral wall or posterior part of the septum, where one is unable to reach the point with a suture, it becomes necessary to use a packing and general medication.

If the patient has lost considerable blood, subsequently spleen bone marrow capsules are employed until the hemoglobin is brought back to normal.

ISSUE VETERANS' BONUS APPLICATIONS

The Adjutant General, at Washington, has announced that he is very anxious to secure the applications for bonus from the veterans of the World War among the medical and dental professions, and former personnel of the army medical department in Wisconsin.

To assist in making out the application forwarding blanks and procedure in securing finger prints, the War Department has placed the recruiting service of the Army at the disposal of the veterans.

For blanks and information apply to the recruiting officer, The United States Army Recruiting Station, Room 217, Metropolitan Block, 290 Third Street, Milwaukee.

SCHOLARSHIPS FOR MEDICAL SCHOOL

Scholarships on the Oliver-Rea Foundation for graduate study in medicine are available at the New York Post-Graduate Medical School and Hospital. Inquiries should be addressed to the Dean, 301 East Twentieth Street, New York City.

PREVENTIVE MEDICINE

Edited by

W. D. STOVALL, Chairman

Section on Preventive Medicine, State Medical Society of Wisconsin

This Section is open to all members of the State Medical Society and others who wish to discuss subjects pertaining to Public Health. Original articles, and criticisms of statements appearing in this section are earnestly solicited. Questions concerning public health procedure will be answered. Address communications to Dr. W. D. Stovall, State Laboratory of Hygiene, Madison, Wis.

THE VENEREAL DISEASE PROBLEM.*

BY JOHN F. SCHNEIDER, A.B., M.D.,

DIRECTOR OF THE VENEREAL DISEASE CLINIC,

OSHKOSH.

The present day methods of managing the contagious and infectious diseases have demonstrated decisively the value of these measures in controlling communicable diseases. The ordinary contagious diseases which occur as scattered cases in every community are no longer allowed to spread until they assume the proportions of an epidemic, because precautions are promptly taken to prevent such dissemination. Practically every disease which can be transmitted from one individual to another is controlled by vaccination or prescribed methods of isolation, or quarantine. The venereal diseases, in contrast, stand out as a definite exception to the above accomplishment, and, although various methods have been devised, after much study over a long period of years, no such obvious improvement toward lessening the number of venereal infections has occurred as is demonstrated in the case of the other infectious diseases.

The prevalence of the venereal diseases in every community is frankly admitted. The number of individuals infected, per thousand of population, cannot be ascertained, exactly. The stigma which attaches itself to an individual who is infected with syphilis or gonorrhoea prevents accurate statistics from being compiled, because in various ways the affected ones attempt to conceal the nature of their malady. Some take no treatment at all; others treat themselves, while others are treated by friends or druggists. All of these cases are not reported and cannot be accurately estimated in compiling statistics.

The physical examinations made of the men entering the army at the beginning of the late war served as a very accurate survey of the prevalence of venereal diseases at that time. The figures ob-

*Read before the Biennial Conference of State Health Officers, 1924.

tained in this way were sufficiently convincing to prove to even the skeptical that in all parts of this country venereal diseases were present in such a large number of our young males that should the same proportion per thousand be applied to the total population, we could assume, without much exaggeration, that there was present an epidemic of no mean proportions. This disclosure led to a very thorough campaign of eradication in the army and navy during the war, and served to promote the establishment of free clinics throughout the country at the end of the war.

The work done among the soldiers and sailors during the war was an indication of what could be accomplished when rigid measures for prevention and treatment are applied under ideal conditions, such as can be obtained under the discipline of military life. The men were required to attend lectures on "Sex Hygiene" where, by appealing to their self-respect, they were urged to practice continence. After being made to understand that continence is the only safe and sure way to avoid the possibility of contracting a venereal disease, they were taught the important details concerning venereal diseases; how and when the exposure takes place, the period of incubation; the early symptoms; the late manifestations, and the consequences of neglected and untreated cases. Orders were issued making it an offense punishable by court martial for any man to contract a venereal disease who had not reported for a prophylactic treatment within four hours after illicit intercourse. All men with a venereal disease in the army were sent to the hospital and their pay stopped while so confined. Prophylactic stations were placed in convenient locations wherever there were troops.

The appeal to the better side of the men was responsible in large measure for the self-control practiced by the majority of the soldiers who served in the army overseas, where temptations for indulgence were present even in a far greater degree than in the United States. The convenient access to prophylactic stations coupled with the risk of incurring punishment for failure to report for prophylactic treatment caused those who did expose themselves to venereal disease to apply promptly for prophylaxis. The results of this program were so decided as to leave no doubt as to its value. A report issued by the Surgeon General estimated that during the war only one man contracted venereal disease after entering the service

to every five who had the disease on enlistment. We have in this statement sufficient proof for the assertion that when vigorous measures are employed against the venereal diseases there promptly results an appreciable reduction in the number of new cases. And, I think all will agree that if it was important to keep the venereal diseases suppressed in the army it is much more important to try to eliminate them from our civilian population where the women and the children, as well as the men, are being exposed.

With this thought in mind I feel that the campaign against the venereal diseases should be as vigorously carried on among the civilian population as it was among the soldiers, and that the health officers, as the responsible heads of public health matters in the various communities of our state, have an opportunity of performing a great service in this work, first by interesting other influential people, and, secondly, by helping to coordinate the various agencies which become involved when matters pertaining to the venereal disease problem arise.

The factors comprising a successful campaign against the venereal diseases are usually classified under two heads, namely, (1) Prevention, and (2) Cure. With so simple a formula for carrying on the work one would assume that the task could easily be accomplished, and that the venereal diseases would soon be reduced to a reasonable minimum. As this work is carried on from year to year, however, it becomes more apparent that the eradication of the venereal diseases is no such simple problem as it appears on superficial examination. There are many factors which resist the efforts of workers in this field and make the results slow and tedious of accomplishment.

In the first place, everyone recognizes that there is a difference between venereal infections and other infectious diseases in one important detail, and that is the moral aspect. This seems to be one of the stumbling blocks which prevents the successful application of measures which have been so effectively used against the other infections. No one feels disgraced when a quarantine card for measles or whooping cough is placed on the front door, but even the shameless prostitute, for obvious reasons, objects strenuously to having a card labeled "Syphilis" or "Gonorrhoea" tacked on the house where she lives. Most venereal disease patients even refuse to stay at home and be confined to bed during the acute stage of these infec-

tions, although the doctor may explain fully that such management of the case will undoubtedly hasten recovery, lessen the danger of complications, and reduce the chances of infecting others. It has been the custom to treat these cases as walking cases, even though everyone knew it would be far better for all concerned if they were treated while at rest in bed. No intelligent patient thinks of going to work when he knows he has typhoid fever or pneumonia. Yet the venereal disease patient, ever in fear of being found out, continues to lessen his chances for obtaining a cure and increases the chances for infecting others by going about his business as usual.

If the venereal diseases existed in only a certain class of people, the united public opinion of those not affected could, for the good of all, demand that quarantine measures be instituted against those infected. But venereal diseases are not confined to any particular group.

Venereal diseases exist in every stratum of our social fabric. There is no grade of social standing, no state of mental development, no influence of special opportunity which prevents men from contracting a venereal disease. The poolroom loafer with no education, except what he has acquired in the gutter; the college graduate with a mind trained to enjoy the boundless wonders of the universe, both alike yield to the urge of the sex impulses and expose themselves to venereal disease.

Nature has placed in every male animal a strong sexual desire, no doubt for the specific purpose of propagating the species. The male of the human species is no exception to this rule, and, as a young man develops, this instinct at a certain age asserts itself as naturally as does the craving for food. Venereal diseases are being contracted daily by our young men as they yield to this impulse, many of them with no knowledge as to the moral and social responsibilities and with no definite ideas as to the risk involved.

Young women do not possess an aggressive sexual instinct such as is developed in men. But nature, in her fear that the race would become extinct, placed in the female a trait which causes her to yield to the attentions and flattery of the male. With these forces at work in vigorous young bodies and with no guidance from reliable sources to control them, promiscuous intercourse has become a common practice among certain of our young people.

In addition to this, another important factor

which hinders the campaign against the venereal diseases is found in the large number of cases of uncured gonorrhoea and syphilis which are allowed to exist without supervision. Often the patient is himself responsible for discontinuing treatment before a cure is accomplished, believing that the disease ends when symptoms disappear. Many of these cases could be held until cured by the physician who was treating them if the "follow up system" which the State Board of Health has made available were promptly called on to deal with the delinquents. But often there is a little delay in notifying such an individual, or he does not respond when notified. Then there is a delay in notifying the State Board of Health, and by the time the deputy health officer arrives on the scene the offender has disappeared. He may or may not be located subsequently, but one thing is certain, such an individual has no qualms of conscience about giving his disease to someone else, because we have repeatedly observed that when a man does not care enough about getting cleaned up himself, he usually is not concerned about giving his infection to others.

The greatest offender in spreading venereal diseases in this state is the girl who does not know she is a carrier of any infection and distributes her disease to numerous male admirers before her career is checked. These girls usually work as domestics, waitresses, nursemaids, or are from one of the factories. They deny the existence of subjective symptoms and come under observation only when they are reported by a young man as being the source of his infection. In many instances these girls are of a subnormal mental development. They may have one or more illegitimate children, often without knowing exactly who is the father of the child. They are unable to resist the advances of men and continue having intercourse even while under treatment for gonorrhoea, or syphilis, or sometimes both.

The foregoing is an attempt to point out some of the obstacles which seem to retard the progress of the campaign against the venereal diseases as we see it in our particular community. No doubt the difficulties encountered elsewhere will vary somewhat with the locality. There are a few general methods of procedure which I believe could be applied to advantage throughout the state.

The first thought of most people in matters of this kind would be to have some laws passed. Getting laws passed and writing them on the statute

books will not bring about a change in an attitude which the people have held for hundreds of years. We have adequate legislation to control the situation in a more thorough manner than is now being done. What we need is a more comprehensive co-operation between all those who are responsible for seeing that the present laws are enforced. The program adopted by the State of Wisconsin would accomplish much if the citizens of this state were giving it the support it deserves. The situation as it exists to-day should be presented to the people in such a way as to leave no room for doubt or refutation. If the public could be informed as to the prevalence, the causes, and consequences of venereal diseases, that force which is called public opinion would soon be demanding measures sufficiently drastic to curb the flourishing condition in which these diseases now find themselves.

I realize that such a change in the point of view of all the people cannot be accomplished in any short period of time. Our people must first be educated to consider this phase of the subject as sensible human beings and regard it in all its human aspects. They must be made to realize that sex impulses and sex experiences are a part of the development of every normal child, and that the custom which has been in vogue for centuries to keep sex knowledge from the children does not measure up to the requirements of our present day and generation.

Wherever this subject has come up for discussion, there has been a majority opinion in favor of teaching the facts of sex by parents in the home. This seems logical, and it is evident also that as the plastic mind develops, the mould of moral responsibility can be impressed in no better place and at no better time. If the parents who have sufficient intelligence to carry out this part of the work could be prevailed upon to conscientiously do their part, a portion of the defense line would be appreciably strengthened. I also realize, as has often been pointed out, that this would leave still a good percentage of our children with no such instruction because not all parents are of a mental caliber that could adjust itself to frank sex talks with their offspring. In order to reach these children, the teaching of sex hygiene in the schools has been advocated. An interesting logical method has been worked out and is now being used in some of the schools of this country. It teaches the facts of sex as they occur in botany, biology, etc., in lessons graded to the age of the pupils. The story of

sex relationship in plants and animals offers a most satisfactory means of acquainting the young mind with sex facts and leads naturally to a frank discussion of sex questions during the course in physiology which should be given some time in the High School years. Such instruction would prepare the parents of the next generation for teaching their children the facts which we believe all children should know and make them capable of pointing out the moral considerations involved, as well as the dangers to those who indulge in promiscuous intercourse.

With all the facts clearly understood, young people would meet these problems better equipped and with less danger of making mistakes than those who have had to learn their lessons in the stern school of experience. Much prejudice exists at present to introducing a program which many regard as too radical, and in order to develop the proper public opinion in this direction interest should be developed in schools and colleges where teachers, ministers, lawyers and doctors are educated. Because from such institutions come the individuals whose opinions are respected and no effort should be spared to make clear to them what an important and responsible part they have in this plan.

Next to instituting an extensive educational campaign among the people, I believe the most help for eradicating the venereal diseases could be obtained by appealing for wholehearted co-operation from members of the medical profession. No class of people know better the exact status of the venereal diseases than do the doctors. If a campaign of prevention and eradication could be launched by every county medical society in this state and each individual physician would take upon himself the task of carrying through to a complete cure every case of venereal infection that came to him for treatment, and would feel responsible that his venereal patients did not spread these diseases to others, there could result promptly a great drop in the incidence of venereal infections.

Judges and lawyers would do much to facilitate this work if they clearly understood that the laws pertaining to venereal disease patients were passed to protect the people of this state from dangerous communicable diseases and are not, as some now seem to infer, a method of persecuting a certain class of people. Mentally deficient girls who are repeatedly reported as sources of gonorrhoea and

syphilis can be sent to an institution, but it often requires the combined efforts of the Health Department, the social worker, the policewoman, the sheriff and the doctor to accomplish this feat. And after these girls have been sent away, all the intricacies of the law having been complied with, they employ a lawyer who finds a way to get them out, and before long they are again on the active list at the Venereal Disease Clinic.

There is one procedure which is not being generally employed against the venereal diseases which I believe could be used to good advantage under the existing conditions. We have at present no means of preventing promiscuous intercourse, and as long as this continues there will develop constantly new cases of venereal disease. For those who persist in exposing themselves a reliable method of prophylaxis should be available in every community. The statistics compiled during the war show that thorough prophylaxis reduces by one-third the number of cases of venereal infections that develop after exposure. Prophylaxis is a recognized scientific procedure, the merit of which is no longer in doubt. The objections to making prophylaxis easily available comes from those who say that it would encourage a sense of security among those who now refrain from illicit intercourse, through fear of contracting a venereal disease. That some harm might result no one can doubt. At the same time there should be an opportunity at each prophylactic treatment for exerting a good influence on an individual who perhaps has just started on the wrong track.

If prophylaxis could prevent two-thirds of the infections from developing after exposure to venereal disease, I believe the advantages to be derived from making this procedure available would outweigh the disadvantages involved.

To sum up, I have tried to show:

1. That the venereal diseases have not decreased in the same degree as have other infectious diseases.
2. That the number of venereal diseases can be reduced by instituting vigorous measures of prevention and cure.
3. That the venereal diseases differ in several important respects from the other infectious diseases. These differences prevent the methods which have been successfully used to eradicate the other infectious diseases from being applied to the venereal diseases.
4. That a successful campaign against the ven-

ereal diseases will require a change in the attitude which people in general have held in regard to sex matters.

5. That such a change can be brought about only by means of an educational program which will guide the minds of children in the schools to think right.

6. That parents, doctors, lawyers, educators and the clergy should be impressed with the responsibilities they have in such a program.

7. That prophylaxis would prevent a certain percentage of venereal diseases from developing among those who persist in exposing themselves to these infections.

PUBLIC HEALTH NOTES
FROM THE
STATE BOARD OF HEALTH

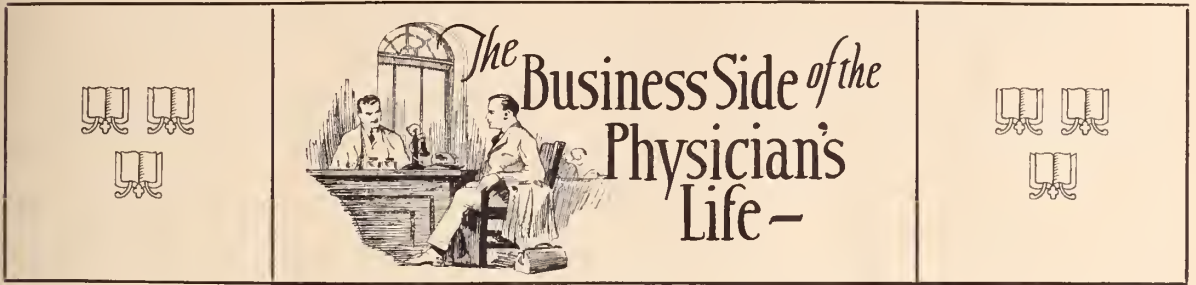
The law requires, a department letter set forth, that every community shall provide a suitable place for the isolation of cases of dangerous communicable disease, as diphtheria, and where it has failed to do so "it must expect to meet any expense incurred in the isolation of such cases."

There is no provision in Wisconsin for the registration of anaesthetists outside of the regular medical profession, it was reported.

There can be no harm, it was stated, from using septic tank sludge as fertilizer within city limits. Such products should be more generally used.

The department explained it is not authorized to furnish vaccine points free to any one; but that a local health department can purchase as much as needed from a biological products concern in this state which supplies Wisconsin with vaccines and serums.

Unless a dwelling house or rooms for human habitation are kept in such condition that a nuisance is created or the family health is seriously jeopardized, there is no statute either direct or implied that authorizes the state or local boards of health to take action to abate congested conditions. This does not apply in cities operating under a housing code.



Since the establishment of this column (and this Journal was the first to have this column) we have never reprinted an article nor have we ever used the "canned" material furnished us from many sides. Now we break a precedent. We are reprinting herewith an article that was printed in this column in December, 1923.

We do not print this again as an example of perfect English. As we look it over we are moved to wonder how we ever let some of those constructions "get by." But run it again is what we are doing because the thought expressed is worth repeating this December. Here you are.

I don't like agents. I don't like agents of any kind. They take up my time and—I blush as I say it—they most generally take away some of my money. I work hard for the aforesaid money. When I have figured out how my balance for the month can be best applied, in comes some agent and all too often he convinces me that my plan is not so good—all wrong in fact.

Now, I mention agents only because one of them did me a favor a few years ago that I have never forgotten. He brought in and laid on my desk a blank saying, "Doc, here is a diagnosis blank I think you ought to have."

Because it was free and only an introduction to what he had in mind to sell me, it reposed on my desk awaiting my annual desk cleaning—mine is the first of each year.

On the Sunday following Christmas, 1919, I found that blank. Because my Christmas neckties, with the exception of one, were all sufficiently modest so that I could wear them, I was feeling particularly good that day. So I looked over that blank before throwing it away.

It was a new kind of a diagnosis blank to me. It had two headings: "Cash Value of What I Own" and "What I Owe."

I had figured that out lots of times on the margin of the evening paper but because I had not done it for sometime I jotted it down on that sheet of paper. Because it was a handy slip I put it in the safe and proceeded to forget all about it.

About a year later I found that sheet on top of a Liberty Bond I wanted to clip. I looked it over—took the back of a deposit slip and started to figure how much more I was worth with a feeling of real satisfaction. Say, you know before I got through that feeling was all gone. I was only worth \$800 more than the year before. I checked and I re-checked but that fact remained—it spoiled that day completely—absolutely wrecked it—no salvage at all.

Then and there I made up my mind that "next year" my assets-liabilities sheet would show up in better style. And it did.

In a few days I will clean up my desk and then sit down and make out my fifth annual statement with Myself, Incorporated. I am as proud of the gain from year to year as when I dropped my first duck on the wing. Now, don't think I am getting miserly because you would be all wrong. I am just taking inventory of myself once a year—just like any business or manufacturing plant. I am counting the parts. Those that look a little shop worn I sell and save a greater loss later on. Those that have been best sellers—of best value—go back in the box. And then I add up the totals to see just how much of a paying business I am.

When I get through with my little statement this year, as in previous years, I leave with a feeling of satisfaction. I have accomplished something and I know it. It gives me the inspiration to accomplish just a little more next year.

And incidentally I have accomplished another thing, I have provided my family with a list of my assets should one of those Chicago taxi drivers do to me what I am in fear of every time I use one.

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ORGANIZED 1841

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C. H. BUNTING, Madison EDWARD EVANS, LaCrosse
W. K. GRAY, Secretary, Wells Building, Milwaukee

W. E. GROUND, Superior

Committee on Health and Public Instruction

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L. H. PRINCE, Sparta, Secretary

SECTION ON RADIOLOGY

M. J. SANDBORN, Chairman
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W. D. STOVALL, Madison - - Chairman L. H. PRINCE, Sparta - - Secretary

MEDICAL SECTION

W. F. LORENZ, Mendota, Chairman
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The Wisconsin Medical Journal, Official Publication

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES

Table with 3 columns: County, President, Secretary. Lists 90 counties and their respective officers.

SOCIETY PROCEEDINGS

CHIPPEWA COUNTY

About fourteen physicians of Chippewa County and six from Eau Claire attended the monthly meeting of the Chippewa County Medical Society, which was held October 22nd at Chippewa Falls.

Dr. O. H. Foerster of Milwaukee, head of the department of skin diseases of the University of Wisconsin Medical School, discussed common diseases of the skin.

DANE COUNTY

The Dane County Medical Society held a dinner and meeting on Wednesday evening, November 26th, at the Madison Club at Madison. The program included papers by Dr. H. E. Marsh on "An Interesting Case Report"; and Dr. Carl A. Hedblom, professor of surgery, University of Wisconsin Medical School, on "The Scope and Present Status of Thoracic Surgery."—E. S. S.

FOND DU LAC COUNTY

The annual meeting of the Fond du Lac County Medical Society was held November 12th at the Hotel Idlewild, St. Cloud. Dinner was served to twenty-five members. The following officers were elected for the coming year: President, Dr. M. M. Scheid, Rosendale; vice-president, J. E. Twohig, Fond du Lac; secretary and treasurer, Dr. D. N. Walters, Fond du Lac.

Dr. J. R. Longley of Fond du Lac gave a short talk on the "Administration and Uses of Ethylene Gas as an Anesthetic." Dr. Warren B. Hill of Milwaukee addressed the doctors on "The Illegitimate Child."

D. N. W.

GREEN COUNTY

The Green County Medical Society met at the Country club at Monroe Wednesday, November 12. Following the banquet Dr. C. A. Harper, Madison, State Health Officer and district councilor, spoke on "Interesting Phases of the Health Work and Its Progress." Mr. J. G. Crownhart, Secretary of the State Medical Society told of the present work and future aims of the Society. Dr. Wilson Cunningham of Platteville, president-elect of the State Medical Society, presented an illustrated paper on the subject of "Ox-bone plates in the Open Treatment of Fractures." Following the scientific program a business meeting was held and the officers of the past year were reelected for 1925. The annual county dues were raised from 50 cents to \$1.

LANGLADE COUNTY

The annual meeting of the Langlade County Medical Society was held at the Butterfield hotel on Wednesday evening, October 29th, preceded by a five-course chicken dinner and smoker.

The regular routine of business was gone through, including the reading of the minutes, reading of communications, etc., and followed by the election of officers, which resulted as follows:

President—Dr. L. A. Steffen.

Vice-President—Dr. E. R. Murphy.

Secretary and Treasurer—Dr. J. C. Wright.

Dr. Wright was also elected delegate to the meeting of the State Medical Society and Dr. G. E. Moore alternate.

The feeling was expressed that meetings of this kind should be held more often as an exchange of ideas and a closer cooperation between the members of the medical profession mean not only a benefit to the members, but the community at large.

The following members were present: Doctors Steffen, Murphy, M. J. Donohue, Daily, Bloor, Gillis, Zellner, Moore, Lambert and Wright.

Following is a copy of a resolution passed regarding the keeping of the main highways open during the winter months:

WHEREAS, In this section of the country where snow covers the ground one-half of the year, the roads in summer are kept in perfect condition, but no regular provision is made for the winter, and

WHEREAS, In times past during the winter months, especially January, February and March, where the most severe epidemics are liable to rage, there has been much needless suffering and even death due to inability of physicians to reach patients in the country on account of roads which were dangerous or impassable especially at night, and

WHEREAS, The work done last winter proved that the condition of the roads can be greatly improved at an expense which is not prohibitive; therefore, be it

Resolved by the Langlade County Medical Society, that the Langlade County board be requested to make the necessary provision to keep open as much as possible the main lines of travel during the coming winter and that a copy of this resolution be sent to the Langlade County board.—J. C. W.

LINCOLN COUNTY

Members of the Lincoln County Medical Society held their annual meeting at the City Hall and Hotel Lincoln at Merrill on November 5th. A clinic on diseases of the skin was held together with a scientific program.

Dr. Otto Foerster, Milwaukee, Associate Professor of Dermatology of the University of Wisconsin conducted the clinic at the City Hall. Some fifteen cases were examined as illustrative of several types of skin disease, following which the treatment was outlined.

At a noon dinner, Mr. J. G. Crownhart, executive secretary of the State Medical Society of Wisconsin, told the members of the work of the society particularly along the lines of lay educational efforts. W. B. Chilsen, editor of the Herald, spoke to the members emphasizing the necessity for the greatest degree of cooperation between the organized medical profession and the laymen in the interest of the best community health.

Dr. C. C. Walsh, Merrill, was elected president of the society for 1925; Dr. W. D. Bayer, Merrill, was re-elected secretary-treasurer and delegate, and Dr. George Baker of Tomahawk was elected alternate delegate.

The afternoon program was devoted to an illustrated paper on skin diseases presented by Dr. Foerster. A general discussion closed the session. The next meeting will be held upon call of the officers.

MARATHON COUNTY AND NINTH COUNCILOR DISTRICT

A joint meeting of the Marathon County Medical Society and the Ninth Councilor District Medical Society was held at Wausau on November 6th. The program consisted of the following papers: "Laboratory Methods," by Dr. W. D. Stovall, Madison, "The Value of the Diet Test in the Diagnosis and Treatment of Scarlet Fever," by Dr. Harold E. Marsh, Jackson Clinic, Madison; "The Present Status of Vaccine, Serum and Protein Therapy," by Dr. Karl K. Koessler, Chicago.

J. F. S.

MILWAUKEE COUNTY

The regular meeting of the Milwaukee County Medical Society was held Friday, November 14th at the Hotel Pfister. The following program was presented: "The General Practitioner," by Dr. Edward Evans, La Crosse; "Chronic Endocervicitis," by Dr. Carl Henry Davis, Milwaukee.

E. L. T.

OUTAGAMIE COUNTY

The November meeting of the Outagamie County Medical Society was held at the Hotel Conway November 13th. Following a dinner the business of the society was transacted, after which Dr. Carl Davis of Chicago discussed the subject of "Diagnosis of Lesions of the Large Intestine." Dr. Davis' lecture was illustrated by lantern slides taken from cases of his own practice. The subject was presented in a very clear and concise manner and was very instructive as well as entertaining. Two points which Dr. Davis emphasized were (1) Complete examination of all patients complaining of hemorrhoids or any bleeding of the lower bowel. (2) The high mortality of the Kraske operation especially in the male and gave his reason why the mortality is so very high with this operation. Paper was discussed by Dr. J. R. Minahan, Green Bay; Dr. E. B. Smith, Fond du Lac; Dr. Otho Fiedler and Dr. G. Stannard, Sheboygan; Dr. Bellin, Green Bay, and Dr. V. F. Marshall, Appleton. There were fifty-five physicians present at this meeting.

E. L. B.

SAUK COUNTY

Eighteen members of the Sauk County Medical Society met at the Warren Hotel at Baraboo, November 20th. Dr. W. D. Stoval of Madison, who has charge of the bacterial department of the state board of health, spoke on vaccines and serums, especially for scarlet fever, and said the formula had not been yet perfectly developed. There are reasons to believe, Dr. Stoval stated that within a reasonable time it will be as effective as for small-pox.

Dr. H. P. Greeley, also of Madison, in speaking upon the treatment for diabetes, said anyone over fifty years

of age would receive no benefit from the use of insulin, and that it should not be used in sixty per cent of cases. It is beneficial in about fifteen per cent of cases he said.

A resolution of condolence in the death of an honored member, Dr. W. F. Nuzum, who died at Madison recently, was adopted.

WALWORTH COUNTY

A meeting of the Walworth County Society was held at the Y. M. C. A. club rooms, Lake Geneva on November 13th.

Dr. Harold E. Marsh of Jackson Clinic, Madison, delivered a very interesting paper on prevention and treatment of Scarlet Fever with special reference to the "dick test."

T. P. K.

WASHINGTON-OZAUKEE COUNTY

The Washington-Ozaukee County Medical Society held its annual meeting at the Washington County Insane Asylum at West Bend on November 6th as guests of Mr. Geo. Blank, Supt., and Dr. W. J. Wehle, County Physician.

The program consisted of the President's Address on, "The Medical Profession and the Public," by Dr. W. H. Drissen of Port Washington and a Diagnostic Clinic and Talk on Insanity by Dr. Adin Sherman of the Northern Hospital for the Insane at Winnebago.

Officers for the ensuing year were elected as follows: President, Dr. J. E. Reichert, West Bend; vice-president, Dr. W. J. Wehle, West Bend; secretary-treasurer, Dr. A. H. Heidner, West Bend; censor, Dr. C. A. Balkwill, Grafton; delegate, Dr. H. M. Lynch, Allenton; alternate, Dr. H. Albers, Allenton.

Dr. Phillip Kauth, Slinger, and Drs. F. W. Sachse and Ezra H. Rogers of Hartford were admitted to membership in the Society.

A. H. H.

GREEN BAY ACADEMY OF MEDICINE

Dr. S. E. Knox presented a paper on "Fractures" at the regular meeting of the Green Bay Academy of Medicine, held November 12th, in St. Vincent's hospital. Drs. P. M. Clifford and O. A. Stiennon opened the discussion. The next meeting will be held at St. Mary's hospital Dec. 10, when Dr. Otis W. Saunders will present a paper on diagnosis and treatment of cancer of the stomach.

MILWAUKEE ACADEMY

A meeting of the Milwaukee Academy of Medicine was held Tuesday, November 25th. The program consisted of the presentation of cases, specimens and roentgenograms. Dr. T. L. Byrd gave a paper on "The Micro-Folin-Wu method of quantitative blood sugar estimation using 0.1 c.c. of blood." "The Value of Pyelography in the Diagnosis of Renal Conditions" was the subject of a paper given by Dr. James C. Sargent. Dr. W. M. Kearns spoke on "Ureteral Stricture," and Dr. Chester M. Echols on "Some Problems in Renal Surgery."

D. W. R.

The regular meeting of the Milwaukee Academy of Medicine was held Tuesday, November 11, at the Health Service Building, Milwaukee. The program opened with presentation of cases, specimens and interesting roentgenograms. Dr. Alfred Kaster spoke on "Thromboeytopenic purpura," and Dr. S. M. Markson gave a paper entitled "Congenital syphilis." The clinical cases were conducted by Dr. W. J. Egan, case of renal dyspnoea; Dr. A. B. Schwartz, case of foreign body in digestive tract, and pathological specimens by Dr. G. H. Fellman.

D. W. R.

NEWS ITEMS AND PERSONALS

Dr. L. C. Combacker of Oseola has turned over his practice to Dr. L. O. Simenstad, and is now taking a course in eye, nose and throat in the graduate department of the University of Minnesota.

Dr. W. J. Allen, Beloit, attended the convention of the American college of surgeons at New York.

Dr. T. L. Aylward, Milwaukee, spoke at the Mothercraft Training school, Milwaukee, October 31. The school is conducted by the Mothers' Service club of the Maternity Hospital and Dispensary association.

The Dwight and Davis clinic in Madison announces the reorganization of the firm with the withdrawal of Dr. C. G. Dwight, whose interests in California require his entire attention. Dr. F. A. Davis has purchased the interests of Dr. Dwight and has formed a new partnership with Dr. E. E. Neff and Dr. R. L. Bower.

Dr. Philip Sinz of Fond du Lac was found guilty of a charge of manslaughter. The charge was preferred in connection with an alleged criminal operation on a seventeen year old girl of Kiel.

Conserve the child was the entreaty of Dr. Max Scham, pediatrician, Minneapolis, before the kindergarten and primary sectional meeting of the Wisconsin Teachers' Association convention in the Auditorium November sixth. Dr. Scham declared that if teachers were to recognize and understand the first signs of unusual fatigue early diagnosis could be made of children's ills and a great deal of harm prevented.

Dr. William E. Mansur, a former resident of Janesville, died in Pasadena, California, Saturday, November 1st. He was graduated from the Hahnemann Medical school in Chicago in 1899.

"The Progress of Medicine during the Last Quarter Century," was the topic of the lecture given by Dr. A. E. Loevenhart, professor in the Medical School in the University of Wisconsin. This was the first of a series of six popular lectures arranged by the Wisconsin chapter of Phi Kappa Phi. Dr. Loevenhart named the discovery of insulin as the greatest single achievement in the medical world during this period—a discovery nearly rivaling that of local and general anesthesia.

Dr. W. H. Wilson of Fond du Lac, who has been practicing medicine at Downing for the last few months, has located at Oakfield.

Dr. Oliver W. Pfeiffer, a graduate of the Marquette University school of Medicine, has begun a practice in Oshkosh. He is the son of the late Dr. Pfeiffer of Sheboygan Falls.

Dr. W. W. Johnston, formerly city health officer of Racine, now located at Gallup, N. M., visited in Racine October 24. Dr. Johnston attended the annual meeting of the American Public Health association at Detroit. He presented a paper to the committee on resolutions dealing with a number of problems of the public health and sanitation among the Indians.

Dr. M. S. Hosmer of Ashland attended the Physiotherapy clinics at Chicago, October 19.

St. Elizabeth's Hospital of Appleton is included in the list approved at the Hospital conference of the Clinical Congress of the American College of Surgeons, New York, by Dr. Franklin H. Martin, director general. Fifty-three hospitals were surveyed in Wisconsin, sixty-two of which were approved. The hospitals are inspected as to their organization, supervision, facilities, procedure, and particularly as to how they control and check up the work of the institution.

Dr. Leslie Tasche, who recently received his Doctor of Medicine degree from Columbia University, New York, is recuperating from an attack of appendicitis at the home of his parents, Dr. and Mrs. C. Tasche, Sheboygan.

Dr. F. H. Russell, who has been practicing at Weyauwega, for the last five years has taken the position of physician for a lumbering company at Winegar.

Dr. Eric Wisiol, pathologist at the Marshfield clinic, has left for Innsbruck, Austria, where he will visit his father who is reported to be seriously ill. Dr. Wisiol expects to be absent from Marshfield for some time.

Badger physicians obtained 50,686 bacteriological tests from the State Laboratory of Hygiene during a recent six-month period.

Dr. S. W. Forbush, who practiced medicine in Orfordville, has located in Beloit.

Strict enforcement of an adequate marriage law was urged by Dr. George P. Barth, health department member, when he addressed the Mothercraft Class of the Maternity Hospital and Dispensary Association, November 14th. The physician said that fully two-thirds of all imbecility is brought about through inheritance.

Dr. Forest Staley, St. Louis, was entertained by the Alpha and Delta chapters of Epsilon Eta, at the University of Wisconsin Homecoming, November 15th. This is a national high school organization which Dr. Staley founded, and of which he is now chancellor.

Dr. Daniel B. Riley, formerly of Milwaukee, died at the United States Veterans' hospital at Palo Alto, Calif., where he had been ill for several months. He was a veteran of both the World War and the Spanish-American war. Dr. Riley at one time was head of the Blue Mound sanitarium and was active in the Socialist party. For several years he practiced medicine at Neenah.

At the election of county officers at La Crosse, Dr. G. R. Reay was chosen as county physician to succeed Dr. A. A. Skemp.

Dr. J. C. Elfers, city health officer of Sheboygan, spoke before the Parent-Teachers' association of that city on the spread of contagious disease. He encouraged greater co-operation with the health department by calling the physician, and having an early examination made of any ill health in the family.

At a luncheon of the Professional Men's Club at Milwaukee November 24th Dr. G. V. I. Brown described the various forms of facial reconstruction used during the war which grew into the more modern methods now used. By plastic surgery, said Dr. Brown, a person's face can be completely made over.

Dr. William E. Ground, of Superior, is vacationing in New Orleans. Before returning to Superior he intends to do some post graduate work.

"Willowbrook sanatorium (Kenosha) is one of the most delightful institutions I have ever visited," was the comment of Dr. H. A. Pattison, medical director of the National Tuberculosis association, New York. Dr. Pattison has just completed a tour of Wisconsin sanatoria and sanatoria of other mid-western states.

Dr. S. C. McCorkle, Commissioner of Health of West Allis, has issued a statement to the people of West Allis on the advisability of the use of toxin-antitoxin. He states it is his intention to supply the toxin-antitoxin free to the people but the physician must be paid for his services.

Tetra-Ethyl lead which is used to prevent the knocking of automobile cylinders from the use of low grade gas in ascending hills is found to be highly poisonous in concentrated form. Fear has been expressed that its elimination through the exhaust would cause poisoning to people, especially in the crowded thoroughfares or tunnels of cities. The U. S. Bureau of Mines has issued a circular and reports the exposure of a number of animals to the exhaust of an engine using ethyl gasoline. The animals were observed throughout a period of eight months for symptoms of poisoning. The results of the investigation "indicates seeming remoteness of any danger of undue lead accumulation in the streets through the discharge of seale from auto motors." Notwithstanding this the boards of health of New York and some nearby towns have forbidden the use of gas treated with tetra-ethyl and some well-known public health authorities have warned against its use.

Dr. J. W. Helz was elected county jail physician at Fond du Lac to succeed the late Dr. E. E. Atkins.

Dr. C. G. Weller, formerly of Fond du Lac, and who has been practicing medicine at Hibbing, Minn., for the past five years, has moved his office to Oakfield.

Dr. Robert Van Valzah, who has been in charge of the university free clinic at Madison for thirteen years, has been transferred to the staff of the new State Memorial hospital and to the faculty of the university medical school. Dr. B. H. Hager, graduate of Chicago and the Rush Medical School and a specialist in kidney surgery, will join the staff of the memorial hospital in January.

SOCIETY RECORDS

NEW MEMBERS

Roberts, R. R., Beaver Dam.
 Kauth, Phillip, Slinger.
 Sachse, F. W., Hartford.
 Fawcett, W. E., Bayfield.
 Gilman, R. G., Ashland.
 Weber, J. G., Watertown.
 Sisk, J. N., Madison.
 Breezinski, E. A., 684 Mitchell St., Milwaukee.
 Dieterle, J. O., 141 Wisconsin St., Milwaukee.
 Fox, M. J., 120 Wisconsin St., Milwaukee.
 Fitzgerald, G. F. A., Hales Corners.
 Fuerstenan, Louis, 425 E. Water St., Milwaukee.
 Griffith, J. C., 2605 Prairie St., Milwaukee.
 Grimm, E. G., Sacred Heart Sanitarium, Milwaukee.
 Huber, H. H., 221 Grand Ave., Milwaukee.
 Hoyer, H. A., 211 State St., Milwaukee.
 Hawkins, H. M., 569½ Downer Ave., Milwaukee.
 Jurs, G. J., 425½ 32nd St., Milwaukee.
 Kretchmar, L. H., 1640 Teutonia Ave., Milwaukee.
 Miller, C. D., 120 Wisconsin St., Milwaukee.
 O'Hara, J. J., 1303 Kinnickinnic Ave., Milwaukee.
 O'Donovan, T. W., 1122 Walnut St., Milwaukee.
 Pink, J. J., 120 Wisconsin St., Milwaukee.
 Rowley, B. B., 445 Milwaukee St., Milwaukee.
 Russell, R. J., 742 National Ave., Milwaukee.
 Seegers, F. W., 2706 North Ave., Milwaukee.
 Schuenzel, L. G. A., 290 Third St., Milwaukee.
 Zaun, J. J., 783 Layton Blvd., Milwaukee.
 Howard, M. Q., Milwaukee Sanitarium, Wauwatosa.
 Byrd, T. L., Sacred Heart Sanitarium, Milwaukee.
 Nelson, O. O., Washington Bldg., Madison.
 Barlow, Roy A., 110 North Hamilton St., Madison.

CHANGES IN ADDRESS

Kirmse, A., 141 Wisconsin St., Milwaukee—27 S. Scott St., Tucson, Ariz.
 Armitage, J. E., 724 42nd St., Milwaukee—3209 Grand Ave., Milwaukee.
 Cox, J. A., Wautoma—805 36th St., Milwaukee.
 Sauthoff, August, Madison—Mendota.
 Brown, D. A., 1 South Pinckney, Madison—care of Jackson Clinic, Madison.
 Owens, W. H., 2452 Burleigh St., Milwaukee—2504 Auer Ave., Milwaukee.
 Morter, R. E., 403 Grand Ave., Milwaukee—230 Grand Ave., Milwaukee.

Morter, C. W., 403 Grand Ave., Milwaukee—230 Grand Ave., Milwaukee.

Dickenson, G. H., 708 Oakland Ave., Milwaukee—763 Cramer St., Milwaukee.

Lee, Hans, La Crosse—Waukon, Iowa.

Wisioł, Erich, Marshfield—24 Fischergasse, Innsbruck, Austria.

Kyes, S. M., Owen—126 Main St., Oshkosh.

Lehnkering, C. F., Darlington—3719 Pacific Ave., San Pedro, Calif.

Turgasen, F. E., Marshfield—Manitowoc.

Noer, Julius, Wabeno—938 West Alomader St., Berkeley, Calif.

MARRIAGES

Dr. A. H. Broche, city health officer of Oshkosh, to Miss Elsie Handow, Oshkosh.

Dr. N. S. Simons, Whitehall, to Miss Bernice Storley, Whitehall, on November 12th. They will reside at Whitehall.

DEATHS

Dr. Albert J. Zinns, 73, died October 31st at his home, 2418 Chestnut Street, Milwaukee. He was said to have been one of the oldest practitioners in Milwaukee. He was born in Manitowoc County.

Dr. Zinns was a graduate of the Medical College of Western Reserve University, Cleveland. Upon arriving here he became associated with Dr. Nicholas Senn, nationally known physician and surgeon. He lived for forty-seven years in Milwaukee.

Dr. Zinns was a member of the Milwaukee Medical Society, the State Medical Society and the American Medical Association.

Dr. Walter F. Nuzum, 42, died at the General Hospital in Madison, November third. Until a year and a half ago he resided in Baraboo.

Dr. Nuzum was graduated from the Northwestern University in Chicago in 1908. He was a member of the Dane County Medical Society, the State Medical Society and the American Medical Association.

Dr. Harry Greenberg, 48, died in Milwaukee November 4th. Dr. Greenberg had been a resident of Milwaukee more than twenty years and was prominently affiliated with Milwaukee clubs and societies. He was graduated from the Cleveland Physicians and Surgeons College in 1897.

He was a member of the Milwaukee County Medical Society, the State Medical Society and the American Medical Association.

Dr. James F. Rood, 68, died at Darien November 8th. Dr. Rood was making an early morning call on a patient when he was stricken with apoplexy and dropped dead.

Dr. Rood attended the Northwestern University of Chicago, from which college he was graduated in 1881. Dr. Rood was a member of the Masonic and Eastern Star lodges, a member of the school board for several years, of the Walworth County Medical Society, the

State Medical Society, and the American Medical Association.

Dr. F. M. McGauley, 49, died at his home in Fond du Lac on Sunday, November 16th. He was a well-known physician and surgeon and city health officer from 1913 to 1920.

Dr. McGauley was born in the town of Empire in 1875. He was graduated from the Northwestern Medical School at Chicago in 1905. He was a member of the Fond du Lac County Medical Society, the State Medical Society and the American Medical Association.

Dr. J. Sthoron Keech, 61, specialist in the treatment of the eyes and ears, died at Racine November 20th.

Dr. Keech was a graduate of the University of Maryland and came to Racine in 1888. He served as city physician two terms. He was a member of the Racine County Medical Society, the State Medical Society, and the American Medical Association.

CORRESPONDENCE

Milwaukee, Wisconsin,
November 13, 1924.

Mr. J. G. Crownhart, Executive Secy.,
State Medical Society of Wisconsin,
558 Jefferson St.,
Milwaukee, Wis.

My Dear Mr. Crownhart:

Allow me in the name of the Officers and Board of Trustees of the Tri-State District Medical Association, to thank you and the Officers of the Wisconsin State Medical Society, for all courtesies extended on the occasion of the Inter-State Post Graduate Assembly of America, recently held in Milwaukee, and particularly for the splendid publicity, given our Assembly in the special issue of the State Journal. This co-operation was very much appreciated.

It will probably be of interest to you and the readers of your State Journal, to know that the 1924 Assembly was the best and largest in the history of our Association and that all previous records for attendance were broken. Medical men gathered from all parts of the United States and from Canada. The registration of Wisconsin men was particularly gratifying and totaled 761, of which number 354 were residents of the City of Milwaukee.

I am enclosing herewith a list of the newly elected Officers and Board of Trustees of the Tri-State District Medical Association.

The next meeting of the Inter-State Post Graduate Assembly of America, will be held at St. Paul, Minnesota, October 26th to 30th, 1925. We are about to get started on our plans for this Assembly and will do all we can to remedy the little defects which arose, in our plans for the 1924 meeting.

Again thanking you for your splendid co-operation.
I am

Yours very sincerely,

EDWIN HENES, JR., M.D.,

Secretary.

NEWLY ELECTED OFFICERS OF THE INTER-
STATE POST GRADUATE ASSEMBLY.

Presidents of Clinics—Dr. William J. Mayo, Rochester, Minn.; Dr. Charles H. Mayo, Rochester, Minn.

President—Dr. Addison C. Page, Des Moines, Iowa.

President-Elect—Dr. John Van Reed Lyman, Eau Claire, Wis.

Vice-President—Dr. Joseph S. Evans, Madison, Wis.

Vice-President—Dr. Edwin P. Sloan, Bloomington, Ill.

Vice-President—Dr. Frank M. Fuller, Keokuk, Iowa.

Vice-President—Dr. W. A. Jones, Minneapolis, Minn.

Vice-President—Dr. Ralph A. Kinsella, St. Louis, Mo.

Vice-President—Dr. Willis D. Gateh, Indianapolis, Ind.

Managing Director—Dr. William B. Peek, Freeport, Illinois.

Associate Managing Director and Treasurer—Dr. J. Sheldon Clark, Freeport, Ill.

Secretary and Director of Exhibits—Dr. Edwin Henes, Jr., Milwaukee, Wis.

Director of Foundation Fund—Dr. Henry G. Langworthy, Dubuque, Iowa.

Speaker of the Assembly—Dr. George V. I. Brown, Milwaukee, Wis.

BOARD OF TRUSTEES.

Dr. George V. I. Brown, Milwaukee, Wis.

Dr. John M. Dodd, Ashland, Wisconsin.

Dr. Wilson Cunningham, Platteville, Wis.

Dr. Arthur G. Sullivan, Madison, Wis.

Dr. John E. O'Keefe, Waterloo, Iowa.

Dr. John F. Herriek, Ottumwa, Iowa.

Dr. Henry G. Langworthy, Dubuque, Iowa.

Dr. Roland Hazen, Paris, Ill.

Dr. Charles G. Farnum, Peoria, Ill.

Dr. Edward S. Murphy, Dixon, Ill.

COMMITTEE ON MEDICAL RESEARCH AND ADVANCEMENT.

Dr. Frank Billings, Chicago, Ill.

Dr. Walter W. Chipman, Montreal, Canada.

Dr. Henry Christian, Boston, Mass.

Dr. Lewis A. Connor, New York, N. Y.

Dr. George W. Crile, Cleveland, Ohio.

Dr. John B. Deaver, Philadelphia, Pa.

Dr. John M. T. Finney, Baltimore, Md.

Dr. Walter L. Bierring, Des Moines, Iowa.

Dr. Dean Lewis, Member and Secy., Chicago, Ill.

Dr. Charles H. Mayo, Rochester, Minn.

Dr. Alexander Primrose, Toronto, Canada.

Dr. John L. Yates, Milwaukee, Wis.

November 10, 1924.

Dr. Rock Sleyster, Editor

Wisconsin Medical Journal

514 Wells Building

Milwaukee, Wisconsin

My dear Doctor Sleyster:

Enclosed herewith you will find a statement regarding the Gorgas Memorial program which I would appreciate your publishing in the December issue of your Journal. If the December issue is made up, will you kindly make a special effort to get it into the January number?

With kind personal regards and thanking you for your co-operation in this matter, I am

Cordially yours,

FRANKLIN MARTIN,

Chairman of the Board.

THE GORGAS MEMORIAL

During the past year, throughout the United States, the work of organizing the Gorgas Memorial State Governing Committees has been progressing. In some states the response has been most enthusiastic, while in others considerable effort has been necessary to bring home to the doctors, the importance of this movement to them, individually and collectively. Inasmuch as the Gorgas Memorial is primarily a medical movement and as such must have the united support of the profession if it is to make the proper impression on the general public, we take this occasion to outline briefly the Gorgas plan and to request the co-operation of our colleagues in bringing to a successful issue, this national health program.

We are planning to establish a Memorial for our former chief, Major General William Crawford Gorgas, not of marble or bronze, but a permanent living organization in the form of a great health foundation typical of his work in research and curative medicine, that will unite lay men and doctors in an intelligent effort to obtain better personal health—a health guild that will be supported and directed by the representatives of curative medicine.

The Gorgas Memorial consists of two phases:

1. An Institute in Panama for research in tropical diseases.
2. A health educational program in the United States and other countries that wish to co-operate and participate in the movement.

We are living in an age when people are knocking at all doors of knowledge and demanding that they be admitted. In the field of medicine who are so well fitted to meet this demand as those actually engaged in the practice of medicine. The doctors have a far more interesting and important message to deliver than any other group.

In the United States to-day there is scarcely a community that has not its quota of irregular "medical practitioners," so called. In many states there are strong organizations of the representatives of the various cults, whose theories are imposed upon an uninformed public. Public ignorance is encouraged by professional reticence and the result is the astounding growth of unscientific methods. If the profession is to maintain the high standing to which centuries of labor in behalf of suffering mankind entitles it, it is essential that a definite organized effort be made to familiarize the public with such facts as will impress upon it the importance of medicine's contributions to human welfare. A constant fund of proper health information through the newspapers, magazines, lectures, moving pictures and the radio, furnished by medical men and women of known reputation and standing, will direct the public to the proper source of medical advice and gradually eliminate the irregular practices constantly increasing.

One of the objects of the Gorgas Memorial is to furnish a channel through which this kind of information may be disseminated. It cannot be done by individual physicians. It must be conducted by a dignified, ethical organization, controlled by the medical profession. The name of Gorgas is synonymous with "better health." No more appropriate name could be adopted for a movement that has for its object, the development of co-operation between the public and scientific medicine for the purpose of improving health conditions by implanting the idea in the mind of every individual that scientific medicine is the real authority in all health matters and as such should be recognized as the source of health instruction.

Before we ask the public for financial and moral support, it is essential that the doctors of the country unite in support of this program. As a means to this end, Governing Committees are now in process of organization, on the basis of 100 members to every 1,000,000 population in each state. 75% of the personnel of each Committee will consist of medical men and 25% of influential laymen and women. The permanent activities of the organization will be supervised by these Committees in their respective states, in co-operation with the National Executive Committees.

An organization cannot operate without funds. We are endeavoring to raise an Endowment of \$5,000,000, the interest only of which will be utilized to carry on the work. The principal will be invested in trust securities and remain intact. None of the money thus obtained will be spent for buildings or equipment. The Republic of Panama has donated the site and guaranteed the initial buildings and equipment for the tropical research laboratories, in recognition of Gorgas' great work in Panama. Those invited to serve as Founder members of the State Governing Committees are requested, as they accept membership on the Committee to subscribe \$100 to the Endowment Fund, payable within two years. Every individual on the State Committee is a contributing member. When the medical nucleus of the organization is complete, a general appeal for funds will be made to the public.

The American Medical Association at its recent meeting in Chicago, passed the following resolution:

"RESOLVED, That the House of Delegates of the American Medical Association, convinced of the great promise which the Gorgas Memorial contains of benefit to humanity through improved knowledge of preventive medicine and tropical disease, and of its peculiar adequacy, as a tribute to our great leader and sani-

tarian, recommend to the organized profession of the country, through its constituent state and county societies, the enthusiastic support of the project."

J. A. Witherspoon, Tennessee.
Joseph Rilus Eastman, Indiana.
Thomas Cullen, Maryland.
W. H. Mayer, Pennsylvania.
F. B. Lund, Massachusetts.

The Memorial has also been endorsed by numerous other medical and civic organizations.

Every doctor is requested to take a personal interest in the Gorgas program and to see that his community is adequately represented on the State Governing Committee. Each County Society should appoint officially at least one of its members to serve on the State Committee. This is one foundation that is controlled by the practitioners of curative medicine and as such should be supported by every practicing physician. Let us pull together, "the doctor for the doctor."

Frank Billings,
Gilbert Fitz-Patrick,
Seale Harris,
W. H. G. Logan,
Samuel J. Mixer,
G. H. de Schweinitz,
Rear Admiral E. R. Stitt,
George Crile,
William D. Haggard,
Franklin Martin,
William J. Mayo,
Stuart McGuire,
Ernest A. Somner,
Ray, Lyman Wilbur,
Surgeon General Hugh S. Cumming,
Major General Merritte W. Ireland,
C. Jeff Miller,
Brigadier General Robert E. Noble,
George David Stewart,
Hugh Young.

Medical Members, Board of Directors,

Gorgas Memorial Institute,

Executive Offices: Chicago, Illinois.

Officers and lay members, Board of Directors:

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Bernard Baruch,
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Samuel Gompers,
W. P. G. Harding,
Judge John Bassett Moore,
Adolph S. Ochs,
Pres. Beliasario Porras, Panama,
Leo S. Rowe,
Fred W. Upham.

Journal, Vol. XXII, No. 6, November, 1923, page 284. For further information candidates may communicate with Major William Roberts, U. S. A., Room 217 Metropolitan Building, 290 Third Street, Milwaukee, Wisconsin (phone Grand 7475); Major Herbert B. Hanson, U. S. A., Room 315, Pereles Building, Milwaukee, Wisconsin (phone Broadway 5603); Major Thomas L. Gore, U. S. A., National Guard Headquarters, Ripon, Wisconsin.

SECRETARIES MEET AT A. M. A.

Secretaries of the constituent state associations and editors of the official state medical journals held their annual conference at the American Medical Association on Friday and Saturday, Nov. 21-22. Wisconsin was represented by Dr. Rock Sleyster, Wauwatosa, President, and by J. G. Crownhart, Executive Secretary-Managing Editor, Milwaukee.

The following program was given:

FRIDAY, NOVEMBER 21—10 A. M.

Address, Wm. Allen Pusey, President American Medical Association.

A Definite Program for 1925, F. C. Warnshuis, Michigan.

What's Wrong with State and County Organization? A. E. Bulson, Jr., Indiana.

The State Medical Journal, F. L. Van Sickle, Pennsylvania.

12:30 P. M. *Recess.*

12:45 P. M. *Luncheon at Virginia Hotel.*

FRIDAY, NOVEMBER 21—2 P. M.

Address, William D. Haggard, President-Elect, American Medical Association.

Direct v. Indirect Service—A Cooperative Campaign, M. L. Harris, Chairman, Judicial Council of the American Medical Association.

What a Full-Time Secretary Does, J. G. Crownhart, Wisconsin.

Procedure in the House of Delegates, A. T. McCormack, Kentucky.

SATURDAY, NOVEMBER 22—9 A. M.

The State Associations and Workmen's Compensation Laws, W. C. Woodward, Secretary, Bureau of Legal Medicine and Legislation of the American Medical Association.

Informal Discussions.

Special and Independent Local Societies. Why?

Revision of the Constitution and By-Laws.

The Medical Society and Periodic Health Examinations.

Graduate Extension Work by the American Medical Association.

Progress with State Programs for Public Instruction.

VACANCIES IN MEDICAL CORPS

The Surgeon General announces that there are fifty-three vacancies in the Medical Corps and that examination of candidates for appointment as first lieutenants in the Medical Corps, Regular Army, will be held throughout the country to fill these vacancies beginning January 12th, 1925. Aside from qualified physicians, interns in hospitals who have not completed the fifth or intern year required by regulations may apply to take the examination at this time, and if found proficient will continue their hospital work until completion of the required post-graduate year, when they will be appointed to the the Medical Corps of the Army.

The pay allowance for quarters and food, etc., together with full details on the status of the position, educational advantages, travel and special scientific courses at government expense can be obtained by reference to The Wisconsin Medical

State Blood Analysis Service Now Used Extensively by Wisconsin Physicians

BY ELMER L. SEVRINGHAUS, M.D.

CHEMIST, WIS. PSYCHIATRIC INSTITUTE, AND ASST. PROF. OF
PHYSIOLOGICAL CHEMISTRY, UNIV. OF WIS.

The use which Wisconsin physicians have made of the free blood chemical analysis provided by the Wisconsin Psychiatric Institute has justified the new service. The work of the first seven weeks has been extensive enough to give assurance that the members of the profession in all parts of the state are glad to avail themselves of added means to more accurate diagnosis. Study of the sources of blood samples is of interest. To date there have been 221 samples sent for examination, by 78 different physicians. This report does not include the work done for the state institutions at Mendota and Madison, which would greatly increase the totals. On these 221 samples of blood 574 analyses have been performed as requested and reported to the physicians. The 78 physicians who have already profited by this work are located in 38 communities. There has consequently been a really state-wide use of the service. Every region of Wisconsin has been represented. There have been relatively few samples sent in from the larger cities where laboratories have been operated for some time past. In these cities the local work is evidently still being done by having the patients go to the laboratory where the blood is drawn and examined. There is no desire to compete with this method of handling diagnostic work. The hope of the directors of the new service at the Psychiatric Institute is to make available to all physicians the advantages which those enjoy who practice in organized centers with elaborate equipment available.

The types of disease concerned in the blood samples examined are numerous. The different affections of the urinary organs from nephritis to prostatic enlargement form the largest group of cases. Next in order come cases of diabetes. A smaller group is that of the cardiac and vascular troubles. Altogether some 30 different diagnoses were made by the physicians who sent in samples. Although this does not prove that blood chemical findings are of value in that number of diseases, it is an indication of the extensive usefulness of such work. Inspection of the requests for blood analysis and the provisional diagnoses gives the very defi-

nite impression that there was real justification for the requests in almost every case. For example, there are no characteristic findings in anemia, but there may be reduced renal function as the consequence of severe and prolonged anemia. It is evident that the careful diagnostician will take steps to estimate the excretory ability of the kidneys in anemic patients. Several such samples have been examined. In most of the analyses performed, there has been little abnormality demonstrated. This fact does not mean that blood analysis is of rare value. It should be interpreted as an indication of the care that physicians are using to exclude certain possible diseases. In many cases normal findings are most important in deciding on the plan of treatment. For example, two blood specimens have been examined from patients who had occasional glycosuria. While they may have been considered mild diabetics, the blood sugar concentration was found normal and hence the condition had to be considered an alimentary glycosuria.

In about one-fourth of the requests for analysis no diagnosis was mentioned. The physician has not felt certain enough to justify his making even a provisional diagnosis in some cases. In other instances the blood has been submitted as a part of the routine first examination of the patient. In 15 per cent of these cases, the blood analysis has yielded results which gave positive evidence of pathology. Any method which will increase the chances of making a definite diagnosis to even this extent should recommend itself for wide use. It is evident that some of the clinicians in the state are making it a practise to send a routine specimen of blood from each new case examined. This would not seem necessary in diseases where the diagnosis is obvious. But the frequent use of the added opportunity for diagnostic detail costs the physician very little time and trouble, and no money. Such routine examinations in non-surgical cases in adults will not infrequently lead to results which will either clarify the diagnosis or make additional diagnosis necessary. The same thing is, of course, true of the employment of a

complete general physical examination of every new patient when first seen. Every internist who has made this routine has been convinced of the profit both to himself and to his patients of this search for all possible evidence of trouble. The laboratory is glad to encourage the use of blood chemical work as a routine for such purposes.

The data sheet which accompanies each blood container has space for provisional diagnosis, important symptoms, and treatment. It is required that these blanks be filled out wherever possible. The insistence on this point is not due to idle curiosity of the staff. It is a means to the improvement of the service. There are three ways in which this operates. The most direct effect is in the case of a small sample of blood on which complete analysis is desired. If all the determinations are requested, but there is insufficient material, the laboratory has to do those which are considered most important. If the provisional diagnosis is given, the director of the laboratory is able to decide how to make the best use of the blood. If, however, no data is given the most valuable data may be missed. Occasionally the physician has failed to indicate which analyses are desired. If the symptoms are known or the diagnosis is given, the laboratory will be able to give what the occasion requires.

Another value to the clinical data is to be found

in the interpretation of the results. It is usually unsafe to make a diagnosis from simply the examination of the blood. If the laboratory is asked to make interpretations it should be furnished with the available data so that interpretation may be valid. This is the consequence of the fact that there are so many conditions in which the chemical composition of blood varies.

But even when there is enough blood for all the analyses desired, and the clinician desires to do his own interpretation, the laboratory is anxious to have clinical data accompanying the blood. The only method by which the value of blood chemistry can be determined is by a correlation of clinical and chemical data. If each member of the medical profession who makes use of the Psychiatric Institute laboratory will consider that he is co-operating with the laboratory to make more accurate diagnoses, this problem will be solved. Then every physician will enjoy the benefits of an improved correlation of blood chemistry and the other methods of examining patients. Blood chemistry is not a static and finished thing. New usefulness of these methods becomes apparent from time to time. By the study of the data from this laboratory it is to be expected that a more perfect interpretation may be arrived at. Therefore the clinical data is insisted upon in every case where blood is sent for analysis.

Campaign Against Heart Diseases to be Inaugurated by Wisconsin Anti-Tuberculosis Association

BY MRS. LOUISE F. BRAND,
WISCONSIN ANTI-TUBERCULOSIS ASSOCIATION.

Plans to make Wisconsin a pioneer in an organized, state-wide campaign against heart disease, along educational lines similar to those which are proving so successful in the conquest of tuberculosis, were announced at the annual meeting of the Wisconsin Anti-Tuberculosis Association held in Milwaukee October 30th and 31st and November 1st.

This announcement, made following an address by Dr. L. M. Warfield, School of Medicine, University of Michigan, and formerly of Milwaukee, was one of the two outstanding events of the 1924 meeting. The other was the official announcement by Dr. W. F. Lorenz, president of the State Board of Control, that Governor Blaine has definitely released the state appropriations for the enlargement of Tomahawk Lake Camp for

Convalescent Consumptives and that the much needed buildings at the camp and also the much needed infirmary at the State Sanatorium at Wales will be erected within the year.

The medical profession of Wisconsin will be quick to realize the far-reaching and vital importance of both these announcements and especially of the one relating to heart disease. To its members it will be especially interesting to know that it is because of the manner in which the campaign against tuberculosis has been carried on in Wisconsin, under the leadership of medical men, that the National Tuberculosis Association has approved the plan of the Wisconsin association to add a department on heart disease to its organization.

It was the medical profession, in Wisconsin as

elsewhere, that launched the campaign against tuberculosis. The public quickly responded to the assurance that the primary problem was one of general and specific ignorance and laymen joined forces with the physicians. Teachers, journalists, men and women in all walks of life began learning and teaching. Now nobody would think of wanting to go back to the status ante.

Since heart disease has superceded tuberculosis as the most deadly of all diseases, enlightened people for some time past have been asking why the medical profession does not repeat on heart disease. Echo and medico-sociologists can only answer "Why?" At least, that has been true up to the present time.

It is logical, of course, that the organized forces through which the medical profession and their lay associates have been able to demonstrate that preventable disease can be prevented should be the ones to take the initiative in an aggressive campaign against heart disease. This obligation, and opportunity, has been recognized for some time by the W. A. T. A., but it has not been until lately that it has seemed expedient to run the risk of launching a second campaign before its first one was completely won. If taking up heart disease were to be construed in any way as a lessening of the attack on tuberculosis, it might mean the loss of some of the supporters of the fight, might result in their drawing away from a battle being successfully waged and again leaving the field to the enemy; an enemy partially licked, to be sure; but not completely defeated. Any such slump in interest might easily mean a return to conditions of apathy and indifference which would once more cloak the onslaughts of tuberculosis.

These are risks that must be faced, however, and should be faced immediately, in the opinion of leaders most closely in touch with the progress of public health in Wisconsin. The tuberculosis death rate is being cut down steadily and consistently year by year. Information concerning this disease is widely spread. It is a matter of common knowledge that tuberculosis is contagious, that it can be cured and that it can be prevented.

The death rate from heart disease, on the contrary, is rising steadily year by year. It is now the chief cause of death. The same popular ignorance surrounds it as surrounded tuberculosis

less than two decades ago. The public needs to be taught that heart disease is contagious in so far as many of the direct causes of permanent damage to the heart are contagious, that it is preventable in many cases and that there are cases of heart disease which are wholly curable. They need to be taught how to adjust lives handicapped by crippled hearts in order to avoid needlessly falling into a state of chronic invalidism.

In determining upon heart disease as the rival of tuberculosis which ought to receive first attention, the W. A. T. A. was also influenced by the fact that both from a diagnostic and a therapeutic standpoint, heart disease has more in common with tuberculosis than any of the other diseases which are numbered among the chief causes of death. It is a chronic, crippling disease, attacking children as well as those in later life. In all the W. A. T. A. chest clinics, special attention is given to examining the heart as well as the lungs. The anatomical location of the heart and the habitual practices of diagnosticians make this natural. Treatment is hygienic, as in tuberculosis, and practically identical in two of its most important elements, rest and daily regimen.

It is a significant fact that almost coincident with the announcement of Wisconsin's heart campaign, the November first issue of the national magazine, *The Survey*, practically devotes its entire number to hearts, the cover page carrying the following announcement:

"Heart disease kills more people in the United States than any other single cause. One out of every fifty of us lives a cramped life because of it. In this number Dr. Haven Emerson and others tell how heart disease can be prevented, controlled, cured; the newest chapter in the stirring story of the conquest of disease."

It is significant, too, that Wisconsin is to be the first state in the Union in which the Anti-Tuberculosis Association is enlarging its field and making a specific attack on diseases other than tuberculosis. In fact, the National Tuberculosis Association is regarding the new work in Wisconsin largely as an experiment and as a demonstration of whether the campaign against tuberculosis will be hastened or hindered by this broadening of the field. It was felt in the National Association that there is no other state in the Union as well equipped as is Wisconsin to undertake this demonstration work.

While the launching of the heart campaign was the event which promises to make the 1924 annual meeting of the W. A. T. A. one of the most notable in its history, it was by no means the only memorable feature. No one who attended the annual dinner at the Hotel Pfister could have failed to have been impressed with the sincerity of Dr. Lorenz's acknowledgment of his surprise at the splendid, representative gathering of nearly 300 people assembled for the occasion. When he had been asked to come to the annual dinner as one of the speakers, he said he had expected to address a little group of "germ chasers," not more than thirty at the outside. Instead there was this really inspiring sight of men and women gathered together from all parts of the state, new proof to the speaker of the strength and the extent of the work that is being done in Wisconsin in the fight against tuberculosis. Dr. Lorenz frankly admitted that he had had no conception of the extent of this work until he had been brought into close touch with it by his duties on the State Board of Control. He spoke especially of the value of the work which is being done so quietly and effectively at Tomahawk Lake Camp under the direction of its superintendent, Frank A. Reich, and his wife, and expressed regret that Wisconsin had allowed the proposed enlargement of the camp to be delayed so long.

The spirit which was so apparent at the annual dinner ran through the entire meeting with its discussions of various phases of the anti-tuberculosis fight. Something of the earnestness of this spirit is revealed by the closing incident of the meeting. As has been the custom for several years past, the meeting was scheduled to end with the Saturday morning group conferences. One of the most important of these group conferences is the one of the sanatorium section, composed of sanatorium trustees, superintendents, and physicians. It concerns itself with an intimate discussion of sanatorium management, both in detail and in the broad conception of the sanatorium's relation to the big problem of tuberculosis control, and so deep was the interest at the Saturday morning conference that the group refused to adjourn at noon; but returned for an afternoon session which continued until well after five o'clock.

COUNCIL MEETS

The Council of the State Medical Society will hold its January meeting in Milwaukee, probably the first week in the month. At this meeting the budget for 1925 will be carefully considered as well as other important business. Election of the Editorial Board of the *JOURNAL* and of the Secretary and Treasurer of the State Society will take place at this time.

CHILD CLINIC NEEDS CITED

According to Dr. John P. Koehler, head of the Milwaukee County Dispensary, bad behavior and defective minds of children can be improved by special examination and treatment in a child guidance clinic just as physical well being of children can be improved by the removal of bad tonsils and defective teeth. Dr. Koehler gave his views on this subject in his talk on the Child Guidance Clinic before the East Side Field Workers' Conference, November 11th.

"Emotional and behavior defects," he continued, "can be removed just as well as physical defects. Chronic mental diseases such as insanity, by early and proper treatment, can be prevented just as readily as chronic physical diseases.

"We know that bad behavior, mental defects and mental disease are responsible for more unhappiness and are far more expensive to a community than disease of the body, so there is good reason why Milwaukee should have a mental hygiene clinic to prevent its citizens from landing in penal institutions and asylums."

The county board will visit such clinics at Chicago, St. Paul and Minneapolis before making a decision concerning a clinic at Milwaukee.

OPPOSE FIXED MEDICAL FEES

Fixed schedules of prices for the service of physicians and surgeons are impracticable in large communities in the opinion of members of the Milwaukee County Medical Society, who commented on the recent action of the medical society of the District of Columbia, which adopted a schedule of rates for service, including operations. According to Dr. H. L. Henderson, president of the society the plan has never been found workable in a community the size of Milwaukee.

THE JOURNAL BOOK SHELF

General Medicine, Practical Medicine Series. The Year Book Publishers, Chicago, Ill.

Life Insurance Examination. Edited by Frank W. Foxworthy, P.F.B., M.D., Indianapolis. Published by the C. V. Mosby Company, 1924, cloth; 738 pages, 156 illustrations. Price. \$9.00.

Hospital Organization and Operation. By Frank E. Chapman.

Diseases of the Chest and the Principles of Physical Diagnosis. By G. W. Norris and H. R. M. Landis. Third Edition. W. B. Saunders Co, Philadelphia, 1924.

The Internal Secretions. Weil-Gutman.

The Medical Clinics of North America. (Issued serially, one number every other month.) Volume VII, Number VI, May, 1924. By Internists of McGill University, Montreal, Canada. Octavo of 306 pages with 49 illustrations and Complete Index to Volume VII. Per Clinic year (July, 1923, to May, 1924): Paper, \$12.00 net. Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

First Steps in Organizing a Hospital. By Joseph Weber, M.A. The MacMillan Company, New York, 1924.

Operative Surgery. Covering the Operative Technic involved in the operation of general and special surgery. By Warren Stone Bickham, M.D., F.A.C.S. Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York. Former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5400 pages with 6378 illustrations, mostly original and separate Desk Index Volume. Volume 4 containing 842 pages with 722 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by Subscription only. Index Volume free.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

RECEIVED FOR REVIEW

Diseases of the Heart. By Henri Vaquez, M. D., Professor of the Faculty of Medicine of Paris. Translated and edited by George F. Laidlaw, M. D., Associate Physician to the Fifth Avenue Hospital, New York City. Introduction by William S. Thayer, M. D., Johns Hopkins Hospital, Baltimore, Md. Octavo volume of 743 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$8.50 net.

Manual of Psychiatry. For the Medical Student and General Practitioner. By Paul E. Bowers, M. D., Examiner in Lunacy, State of California; Lecturer in Neuropsychiatry, Post-Graduate Medical School of the University of California, Los Angeles. Octavo volume of 365 pages. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$3.50 net.

Laboratory Guide in Histology. By Leslie B. Arey, Ph.D., Professor of Anatomy in the Northwestern University Medical School, Chicago. Second Edition, Revised. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$1.25 net.

Practice of Pediatrics. By Charles G. Kerley, M. D. Formerly Professor of Diseases of Children, New York Polyclinic Medical School and Hospital, and Gaylord W. Graves, M. D., Associate in Diseases of Children in the College of Physicians and Surgeons, New York City. Third Edition, revised and reset. Octavo of 922 pages, 150 illustrations, Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$9.00 net.

Child-Health Library. A series of ten books by practicing specialists, giving information on phases of child health. The ten volumes are as follows: Pre-natal Care and the Baby's Birth, by Harbeck Halsted, M. D.; Babies—Their Feeding and Care, by Louis C. Schroeder, M. D.; The Neglected Age—The Child from Two to Six, by B. S. Denzer, M. D.; Dangers of the School Age, by M. Alice Asserson, M. D.; Communicable Diseases of Childhood, by Stafford McLean, M. D.; Hygiene of the Mouth and Teeth, by Thaddeus P. Hyatt, D. D. S.; What Children of Various Ages Should Eat, by Lucy H. Gillett; How Children Ought to Grow, by John C. Gebhart; Psychology of the Child, by David Mitchell, Ph.D.; Educational Problems, by David Mitchell, Ph.D.

Abt's Pediatrics. By 150 specialists. Edited by Isaac A. Abt, M.D., Professor of Diseases of Children, Northwestern University Medical School, Chicago. Set complete in eight octavo volumes totalling 8,000 pages with 1,500 illustrations, and separate Index Volume free. Volume V, containing 865 pages with 373 illustrations. Philadelphia and London, W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription.

REVIEWED

Medical and Sanitary Inspection of Schools. By S. W. Newmayer, A. B., M. D. Lea & Febiger.

This is the second edition of a standard text upon school inspection. It has been revised and brought up to date and is well adapted to serve as a guide for the Medical Inspector of school children.

The statistics are full and complete and show the best visualization of the present status of school inspection to be found in one place. The discussion of

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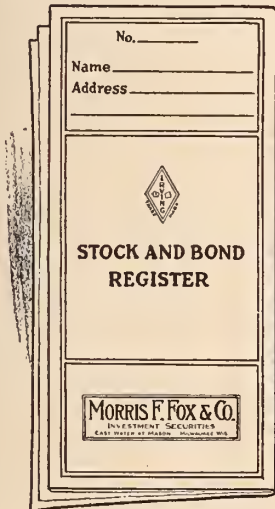


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records and record keeping is especially helpful, and a number of excellent blank forms will be found.

The technique to be used in routine medical inspection will be found particularly helpful to either physician or nurse who is undertaking for the first time medical inspection work, and these same chapters are well worthy of review to the experienced inspector. There is an excellent chapter devoted to the work of the nurse, giving both the functions of the nurse working independently and the nurse under medical supervision.

That section of the book devoted to the hygiene of the school and its surroundings has been carefully revised and brought to date, and will be found exceedingly helpful in the planning of new school buildings.

There is also an excellent chapter under Rural School hygiene and sanitation.

All in all the book is to be highly recommended as giving in a brief yet complete manner the present day practices of medical school hygiene, and should be in the possession of every person engaged in this phase of public health work. It is equally valuable to the beginner and to the experienced medical inspector.

E. V. B.

Diseases of Middle Life. By Frank A. Craig, M. D. F. A. Davis Co.

A two volume system of medicine dealing with pathologic changes that most especially effect the middle aged and aged. No acute infectious diseases or diseases peculiar to infancy or childhood are dealt with.

The sections on diet, muscular exercise and hygiene, occupational and industrial diseases are especially good and make the work slightly different from the average system of medicine. The sections on diabetes and bronchial asthma are very complete and bring the present knowledge of these conditions up to date. The two volumes would form a valuable addition as reference books to any library.

D. B.

Diabetes: Its Treatment by Insulin and Diet. A Handbook for the Patient. By Orlando H. Petty, M. D., Graduate School of Medicine, Univ. of Pennsylvania. Cloth. 111 pages. The F. A. Davis Co., Philadelphia. \$1.50.

This book is another of the manuals written by a physician who has given special attention to the clinical aspects of diabetes. It is written in simple style, intended for laymen. It will serve as an explanation of the disease process and the principles of treatment. Diet adjustment properly precedes the use of insulin. The book is not meant to make the patient self-sufficient, but to enable him to follow accurately the directions of his physician. The attitude is conservative and the advice given may be safely followed throughout. The usual diet tables are given, and the foods are arranged in the very convenient tables by per cent carbohydrate content. Very little space is given to sample menus and recipes. The patient is taught how to arrange and calculate his own diet from the prescription of the physician. This phase of the book is probably too brief and not simple enough for the usual patient to follow.

The personal teaching of the experienced physician or a dietician would be found necessary to amplify the book at this point. Unfortunately this is just where the general practitioner needs most help from a book.

E. L. S.

Hygiene and Public Health.

In this book the author has epitomized many branches of science related to hygiene and public health. The book contains about three hundred pages and treats of household hygiene, child hygiene, school and industrial hygiene, public water supply, foods, meat foods, milk supply, disposal of wastes, public nuisances, prevention of infectious diseases, and federal hygiene.

The introduction is taken up with succinct definitions of hygiene and sanitation and statistical data on the death rates of certain of the most common diseases. The chapter on household hygiene treats of construction, the relation of construction to sanitary conditions, house ventilation and the water supply. House ventilation, humidity and the water supply are so important that it is to be regretted that less space was not given to some other matter, construction, and more to these subjects.

Child, and school hygiene are treated in separate chapters but in a very cursory manner. An outline of the scope of the work and the most common practices in this branch of preventive medicine constitute the chapters.

The chapter on milk supply is very informative for one who is not already familiar with the subject from a study of a more comprehensive work, and together with the section on the prevention of communicable diseases constitutes the best part of the volume.

The author starts out by saying that the book is a brief compendium of facts related to hygiene and public health, and as such a work can be most highly recommended. It is to be regretted, however, that a short bibliography on the subject so briefly touched on was not included instead of the list of questions which come at the close of each chapter.

W. D. S.

WHITE PLAGUE "CURE" DISCUSSED

Dr. G. L. Bellis, superintendent of Muirdale sanatorium, Milwaukee, stated that he believed the so-called "gold cure" for tuberculosis which has been put forth by the Danish scientist Prof. Holger Moellgaard of the University of Copenhagen, was but another of the numerous cures that have appeared from time to time but later were found worthless.

Dr. Ira F. Thompson, acting commissioner of the health department of Milwaukee, said he would be doubtful of the cure's value until it had been given a thorough test and had proved its worth.

ADDRESSES OF ALUMNI WANTED

Alumni New York Skin and Cancer Hospital Graduates of this post-graduate school are requested to send their present professional office address to the secretary of the reorganized Alumni Association. Dr. Herman Goodman, 15 Central Park West, New York City.

MADISON NEUROLOGICAL CLINIC

First Central Building
Madison, Wisconsin

The work of this Clinic is limited to neurology, psychiatry, syphilis, cardiac and endocrine disorders.

The service is both diagnostic and therapeutic.

Syphilis in all its phases, especially late manifestations and syphilis of the central nervous system, will be treated. Limited hospital facilities for this purpose are available at Madison.

Metabolic and cardiac disorders will receive special attention.

Our diagnostic service includes psychoneuroses, psychoses, conduct and behavior disorders in children.

The Clinic is equipped to render special service in the following diagnostic methods:

SEROLOGICAL examination	BASAL METABOLISM
DARK FIELD examination	CARDIAC FLUOROSCOPY
LUMBAR PUNCTURE	BLOOD CHEMISTRY
ELECTROCARDIOGRAPHY	DERMATOLOGY

After careful study, a complete detailed report with conclusions and suggestions for treatment will be submitted to the physician who refers the case.

Examination by appointment only.

W. F. LORENZ, M. D., *Chief Consultant*
W. J. BLECKWENN, M. D.

F. J. HODGES, M. D.
R. L. McINTOSH, M. D.

The Management of an Infant's Diet

Malnutrition, Marasmus, Infantile Atrophy, Athrepsia

Mellin's Food	8 level tablespoonfuls
Skimmed Milk (1% fat)	9 fluidounces
Water	15 fluidounces

This mixture contains 56.61 grams of carbohydrates, thus supplying material that is utilized rapidly for heat and energy. The predominating carbohydrate is MALTOSÉ, which has the highest point of assimilation of any of the sugars. is immediately available as fuel and may be safely given in comparatively large amounts. The daily intake of protein from the employment of this formula is 15.54 grams, an amount calculated to be sufficient to replace depleted tissues and to provide for new growth. There is present in the mixture 4.32 grams of salts for replenishing inorganic elements.

The suggested modification furnishes nutrition in keeping with the character and amount of food elements best adapted to the particular demands of infants in an extreme state of emaciation and serves well as a starting point in attempting to meet the nutritive requirements of these undernourished babies.

Mellin's Food Co., 177 State Street Boston, Mass.

When writing advertisers please mention the Journal.

OH DOCTOR, DOCTOR!

By H. A. J.

I have just discovered a marvelous new invention, a time and money saver, which should certainly appeal to physicians. While glancing over an old paper my eye was caught by a modest announcement which read: "American Steel Shirt Collars—Electric, self-adjusting, enameled white. \$5, \$6, and \$8 a dozen." Why such an epochal advertisement was tucked into an obscure corner of the paper I cannot imagine. The thing should have been broadcast from the front page, or at least illustrated with a cut. But with startling brevity, it left abundant opportunity for the imagination of fashion-ridden man to work.

The celluloid collar filled a certain gap, but it was not indestructible. A careless smoker might very easily set fire to himself, with horrible consequences. The celluloid collar was also not impervious to dirt, in spite of stern applications of an eraser. A steel collar, on the other hand, is greatly to be preferred. Aside from the elimination of the fire hazard, (with consequent lowering of insurance premiums) the thing would be practically indestructible. Whatever dirt it accumulated during the day could be speedily removed at night with a moist cloth, and an acid bath once a month would clean the pores. The destructive engines of even the most villainous of laundries would not be able to tear it, should a trip to the laundry ever be necessary, and above all, even the most torrid weather could not make it wilt.

The first cost appears rather excessive, but it is the last, and comfort and appearance have not been sacrificed to economy. The advertisement itself says that the collars are self-adjusting, which is all that any man could ask of a collar, and the enameled white finish lends just that man-about-town air so difficult to approximate unless every detail of dress is correct. I am not sure as to the electric properties of the collar, but I assume that it is to act as a sort of personal lightning rod.

I do not think that this collar is to be had at the present time. The advertisement which I noticed appeared in a Boston newspaper published the day after the assassination of President Lincoln, and it was preceded by an advertisement for Allcock's Porous Plasters—Approved by Doctors of All Theories. The patent must surely have ex-

pired by this time, however, and interested persons may manufacture steel collars for themselves.

From *The So-Called Human Race*, by Bert Leston Taylor (the late "B. L. T." of the Chicago Tribune's "Line of Type or Two" column). I cull the following choice remark: "Overheard in an osteopath's office: 'When does it hurt you most, when you set or when you lay?'"

TO SELECT NEW HOSPITAL SITE

Dr. Gilbert E. Seaman, Milwaukee, has been appointed a member of a committee to select a site for a new government tuberculosis hospital for the Tenth district.

Other members of the committee are Dr. E. E. Dougherty, St. Paul; Dr. Boyd Wales, Pierre, S. D.; William Stern, Fargo, N. D., and Byrd Osborne, St. Paul. The district includes Minnesota, Wisconsin and North and South Dakota.

A BOOK OF IMPORTANCE IN THE PRESCRIBING OF DIETS

The dietetic importance of pure, plain, granulated gelatine has attracted so much attention, and the demand for more information has reached such a volume that the laboratories of the Charles B. Knox Gelatine Company have prepared a book of dietetically correct recipes with gelatine for diabetes, nephritis, high blood pressure, gastritis, gastric intestinal disorders, fevers, constipation, obesity, and general mal-nourishment in infants and adults.

The recipes have been most carefully worked out under authoritative auspices and with each recipe is given a quantitative analysis of carbohydrates, fat, protein and calory value.

The diabetic section of the book is a most valuable contribution to advanced dietetic practice, with or without the insulin treatment. Another important chapter is the report of T. B. Downey, Ph.D. Fellow at Mellon Institute, Pittsburgh, on the value of pure, unflavored gelatine as a protective colloid in the modification of milk in infant feeding, which in no way changes prescribed formulas. Dr. Downey has determined, by standard feeding tests, that the addition of one per cent of gelatine to a quart of milk increases the yield of nourishment by about twenty-three per cent.

Furthermore, these feeding tests determined that the protective colloidal action of the gelatine was highly efficacious in aiding the complete digestion and resulting assimilation of other basic foods of the vegetable, fruit, meat and fish families.

A most important feature of this book is the simple and complete directions for the preparation of these dishes, without which a prescribed diet so often fails, despite the care and caution of the physician.

The book will be mailed upon request—postpaid and free of charge—by the Charles B. Knox Gelatine Company, Johnstown, New York, to any physician or dietician who requests it.

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OUR ACCOUNTABILITY—PUBLIC RESPONSIBILITY

A student at the University of Wisconsin entered the Ordnance Department of the army during the world war. In the ordnance school the first thing he was taught was the difference between "accountability" and "responsibility".

As an ordnance supply officer he was *accountable* for the rifles he issued to the soldiers. That meant he must at all times be prepared to show that they had been issued properly and to the proper persons. On the other hand the soldier was *responsible*. He must be able to produce the individual rifle.

The medical profession of Wisconsin is accountable for the present day scientific means for prevention of disease and for the general betterment of the public health. As an organization of specially trained and educated men it stands in the position of the ordnance officer except that it is accountable for this information instead of rifles. When the medical profession has made proper distribution of this information to the public, the public then becomes responsible for its health and welfare.

Since December, 1923, the State Medical Society of Wisconsin has taken such steps for the distribution of accurate information respecting the public health as now enables the Society to have just pride of its record of accountability. Because of the limited means available it is not possible to impart this information to all the people of Wisconsin, numbering now nearly three million. It is within the means of the Society to make information respecting the prevention of disease and public health available, first, to those officials who must pass upon these questions, and second, to those who are interested in this important subject.

This Second Annual Lay Issue of the Wisconsin Medical Journal is one of the means used by the Society to discharge its accountability. Public health is our accountability—it is the public's responsibility.

Significant Lines of Progress in Medicine in the Last Quarter Century*

BY A. S. LOEVENHART, M. D.,

PROFESSOR OF PHARMACOLOGY, UNIVERSITY OF WISCONSIN.

The honor has fallen upon me to give the first of a series of lectures on the progress made in various phases of human effort during the last quarter century. Medicine is the most ancient of the professions and the progress of the past 25 years had to be built upon all the knowledge that all the previous centuries had yielded. It is difficult to evaluate contemporaneous effort just as historians find it difficult to analyze contemporaneous events. A certain lapse of time is required in order to know definitely what is evanescent and only of temporary importance and what will enter into the warp and woof of the fabric which the thousands of research workers in medicine are striving to weave. In making the attempt to present the enduring accomplishments and omit the inconsequential, one must be guided by the history of the subject together with whatever scientific judgment and common sense he may be endowed with. Just as one musical composition may appeal more to one than to another listener, so different men would evaluate various scientific contributions differently.

COORDINATION IN THE BODY

The most striking thing in observing higher animals is the remarkable coordination in the various parts of the organism. In reacting to various situations, such as the presentation of food, to exercise, to fatigue, and innumerable other conditions, the harmonious working of the different parts has always aroused man's curiosity and interest, and in disease the failure of the parts of the body to react adequately indicates the practical importance of fully understanding the means by which coordination is effected. Up to the beginning of the last quarter century the nervous system was regarded as the only important mechanism for coordinating the functions of the body. The great Russian physiologist, Pawlow, and his pupils had completed their remarkable studies on coordination of function in the gastro-intestinal tract. They had shown that when a hungry animal sees food and also when

he tastes it, the gastric juice begins to pour out from the walls of the stomach in preparation for its digestion. Pawlow showed that this is a nervous reflex due to stimulation of the nerve endings of the senses of smell and taste. He showed that when the acid *chyme* from the stomach pours into the intestine there immediately follows an outpouring of pancreatic juice which is the means of continuing the digestive process in the intestine when gastric digestion is completed. Pawlow then sought to determine how the secretion of the pancreatic juice is automatically controlled so that the juice reaches the intestine at the right time. He concluded that the acid *chyme* from the stomach irritates and stimulates nerve endings in the intestine and thereby causes a nervous reflex which reaches the pancreas through nerves to that gland. Pawlow sought to find the nerves which carry this impulse to the pancreas and cut many of the nerves in the vicinity without destroying this remarkable reaction of the pancreas. Popielski then took up the problem and cut all the nerves that could possibly be concerned in carrying the impulse to the central nervous system and thence back to the pancreas. This also failed to prevent the response of the pancreas to the placing of dilute hydrochloric acid in the intestine and he concluded that the reflex was a local one passing directly from the intestine to the pancreas and not involving the brain, spinal cord, or the sympathetic nervous system.

"LET'S HAVE A CUP OF TEA"

In 1902 Bayliss and Starling attacked the problem and cut all nerves between the intestine and pancreas and still this remarkable coordination occurred, so that hydrochloric acid in the intestine provoked the excretion of pancreatic juice. Then the idea dawned on them that, perhaps, the hydrochloric acid, on reaching the intestine, might notify the pancreas of its arrival there by means of a chemical messenger instead of a nerve impulse. They then scraped the mucous membrane from the intestine of an animal, extracted it with hydrochloric acid, filtered, neutralized the extract, and injected it into a vein of another animal when almost immediately the pancreatic juice came

*This address was given as a public lecture under the auspices of the Wisconsin Chapter of the national honorary scholastic fraternity, Phi Kappa Phi, on Monday, November 10, 1924.

pouring out into the intestine in such amounts as had never been seen before. They called the substance extracted by the hydrochloric acid, *secretin*, because it causes the pancreas to secrete the juice. Bayliss and Starling are among the greatest representatives of the British school of physiologists, and when the experiment proved a success and cleared the dark field as to the coordination of pancreatic with gastric digestion and gave the first conception of chemical coordination by chemical messengers in the body, Dr. Bayliss is reported to have said to Dr. Starling in true prosaic British fashion, "Let's have a cup of tea."

Like every great discovery, it had its precursors. In 1895 Baumann showed the presence of a large amount of iodine in the thyroid gland. (The thyroid gland lies in the lower and forepart of the neck, just below the Adam's apple.) It has long been known that goiter is prevalent in certain areas of the earth's surface. Within recent years, and as a result of the work of many men, it has been demonstrated that goiter can be almost eliminated from human and animal diseases by the administration of very small amounts of iodine. The active constituent of the thyroid has been isolated by Kendall of Rochester, Minnesota, and the pure substance, thyroxine, can be used if desired. The constitution of this substance has been greatly elucidated, also, by Kendall. Thyroxine is another of the remarkable group of chemical messengers in the body effecting the coordination of various functions. The treatment of acute exophthalmic goiter (a type of goiter that affects the nervous system) has been greatly improved, due to these advances in the knowledge of the thyroid gland.

INSULIN—BANTING'S TRIUMPH

This theme leads naturally to the recent discovery of insulin by Dr. Banting of Toronto. This substance, produced as an internal secretion by the pancreas (a gland behind the stomach), is essential to the proper burning of sugar by the body, and its discovery has resulted in saving innumerable lives of victims of diabetes. The discovery of insulin is one of the greatest single discoveries in medicine of all time and will almost rank with the discovery of general and local anesthesia. Yet, insulin would never have been discovered by Banting or any one else except for the gradual increase in knowledge of the function of the pancreas, the large number of investiga-



F. S. Banting, M.D., who, with Prof. J. J. R. McLeod of Toronto, was awarded the Nobel Prize for the discovery of insulin. (*Hygeia*, 1924.)

tions on the subject which were not spectacular but which paved the way and led up to Banting's triumph. Thus, to mention only one, von Mering and Minkowski first showed that, if the pancreas of a dog is surgically removed, the animal develops the severest form of diabetes. This was the first intimation of a connection between the pancreas and the burning of sugar in the body. Many other similar contributions led naturally to the discovery of insulin by Banting or some other investigator; but the public only hears of the genius who puts the final step on the latter that makes it of practical use. It is the tremendous increase in the total sum of knowledge which makes the spectacular advance possible, and it is only the specialist who can appreciate the situation. At best, the public could only be expected to appreciate, that work which has as its object an increase in knowledge is of the utmost importance, regardless of its immediate applicability to human welfare.

CHEMISTRY CONTRIBUTES ITS SHARE

But we must pass on to another phase of medical advance along quite different lines; namely, the subject of chemotherapy. It is interesting to note that such important medicinal drugs as opium, cinchona bark, coca leaves, and nuxvomica were discovered long before the day of

scientific medicine. It was only within the last century that their active principles—morphine, quinine, cocaine, and strychnine—were first isolated and known in their pure state. Following the preparation of these pure drugs from the crude plants, the question naturally presented itself as to what peculiarity in their chemical structure conferred on these substances their power to produce such remarkable effects. Light could only be thrown on this question by thorough knowledge of their constitution and it has been and still is one of the great problems of organic chemistry. Having discovered, in some cases, the constitution of these substances, the chemist then sought by alterations in their constitution to enhance their value to man in the treatment of disease, and at the same time lessen their poisonous properties. In other words, having discovered the substances produced by nature, and having solved their constitution, chem-



Paul Ehrlich, the physician who discovered "606," the drug that has proved one of the most useful remedies in the treatment of syphilis. (Hygeia, 1924.)

ists sought, and in many cases with great success, to improve on the natural products. The study of the relation of chemical constitution to the action of substances in the body has constituted an enormous advance of inestimable value in medicine during the past 25 years.

The work of the first decade culminated in the production in Ehrlich's laboratory of one thousand compounds, most of which were new and had never before seen the light of day, which were produced with the object of finding a more suc-

cessful drug than any known in the treatment of syphilis. The 606th substance of Ehrlich's series, which has since become known as Salvarsan or Arsphenamine, proved to be of immense value in the treatment of syphilis. Its place has been largely taken, however, in practical medicine by a more soluble, more convenient, closely related

substance, also produced in Ehrlich's laboratory, called Neosalvarsan. The essential idea in this phase of endeavor — namely, chemotherapy — is to get a lead to find a substance which has some value in the treatment of a disease and then to prepare innumerable derivatives of that substance on the basis of what we know of the relation of chemical constitution to action, and in this way to find the best possible drug for use in this particular condition. It has been and is being used in the attempt to find better sleep-producing drugs, better general and local anesthetics, and in many other fields of medicine.

PREVENTIVE MEDICINE—A GREAT FIELD

One cannot speak of the great advances of the past 25 years without giving place to the great achievements in the field of preventive medicine. Medicine is the only profession which seeks to remove the necessity for its very existence and which will achieve its goal only when it prevents the patient from contracting a disease, prevents avoidable pain and suffering and premature

death. It is difficult for those of us living today to conceive of life as it was in the day when great epidemics of smallpox, cholera and bubonic plague swept the earth. Some conception of the situation may be obtained from the fact that before the days of vaccination against smallpox, it was common for a man in advertising for a business partner or a trusted employee to state as one of the prerequisites that he must have had smallpox. Twenty-five years ago, yellow fever was still rampant in the South and would occasionally invade states north of the Ohio River. An immense amount of mail and other property was destroyed for purposes of stamping out the plague. It was shown about 1901, by Reed, Carroll, Lazier and Agramonte, that the infection in the case of yellow fever is carried entirely by the bite of the mosquito and that it could not be contracted in any other way. All of this useless destruction of property was obviated and the real source of the infection—namely, the breeding place of the mosquito—was attacked.



As a result of This man is spraying oil on a large "pot hole" in an effort to kill mosquito wiggletails. (Hygeia, 1924.)

the practical application of these findings by Gorgas and others, there has not been a case of yellow fever in the United States or Cuba for years. In fact, there are only one or two small localities where yellow fever ever occurs at the present time. The solving of the yellow fever and of the malaria problem made possible the construction of the Panama Canal; it changed some of the most unhealthful localities in the world, such as Panama, to perfectly safe places to live, and tremendously increased the average span of life in these localities. There is no more healthful place in which to live than Panama.

STAMPING OUT HOOKWORM

In a similar way, the stamping out of hookworm disease as a result of the work of Dr. Charles W. Stiles and the practical application of the results of his work by the Rockefeller International

Health Board in the Southern states of this country and in various other parts of the world, has been of untold benefits. The poor, anemic, lazy victim of hookworm disease, through the application of proper methods of diagnosis and treatment, is transformed into a healthy vigorous individual, and steps are being taken to stamp out the disease.

Again, if we compare the incidence of typhoid fever during the Spanish-American War in 1899 to the incidence of typhoid in the Great War, one will see the enormous reduction in typhoid fever—a typical camp disease—due to the application of typhoid vaccination and other improved hygienic measures for preventing the occurrence of this disease among soldiers. Typhoid fever is now a rare disease, due largely to the advances made in the last quarter century. The progress in the

prevention of diphtheria in the last 25 years has been such that it certainly lies within our power to stamp out almost entirely this disease which formerly decimated families, in many instances taking all the children within a few weeks. We have

perfectly safe methods of determining whether an individual is susceptible to diphtheria, and if he is we can safely render him immune. It seems highly probable from the work of the Doctors' Dick that we shall soon be in the same position in regard to scarlet fever. Socially it will be granted by all that preventive medicine is by far the most important aspect of our subject; but it does not entirely fill our needs. When we are ill we are not satisfied to know how we might have avoided the illness but demand that we be cured.

SCIENTIFIC METHODS OF DIAGNOSIS

Let us now turn for a moment to the applications of exact scientific methods of diagnosis and also for the purpose of determining the efficacy of our treatment of disease. Perhaps the most striking instance of the application of exact



Studying the X-ray Plate.

scientific methods is the use of the X-ray both for diagnosis and for the control of treatment of many conditions, such as fracture of bones, tuberculosis of the lungs, diseases of the heart and large blood vessels, the location of foreign bodies, and various other conditions too numerous to mention. It is difficult to conceive of medicine without the use of the X-ray. Take a case that occurred in our own faculty. The child was lying on the bed; a safety pin suddenly disappeared; what was to be done? Had the child swallowed it? Should the child be operated upon on chance that it was there, with the possibility of an unnecessary serious operation, or should we assume that there was a mistake regarding the number of safety pins? The X-ray revealed the pin, open, and pointed the wrong way.

Among the important applications of scientific methods, we must refer to the use of the electrocardiograph in the study of heart diseases. Here, the electrocardiographic method gives the most certain diagnosis of certain forms of very serious heart disease or excludes them. It gives information regarding the condition of the heart muscle which it is difficult or impossible to get by other means. It gives information as to the reserve strength of the patient, and finally it records improvement as a result of treatment.

Another equally important instance is the use of the Wassermann reaction in the diagnosis and for the control of treatment of syphilis in its various manifestations, including syphilis of the central nervous system, general paralysis, locomotor, ataxia, etc. All of these three methods and many others could be given as important advances in the application of scientific methods in medicine in the diagnosis and treatment of the individual case.

The last phase of medical advance during the

last quarter century, upon which I shall touch, is the attitude of the public toward things medical. There still remains an enormous amount of work to be done in enlightening people what medicine can and what it cannot accomplish. The failure of people to realize what is incapable of accomplishment is largely responsible for the large number of fraudulent schemes to separate sick people from their money. People should understand that medicine cannot cure a glass eye nor a wooden leg. In other words, when vital tissues are destroyed by accident or by disease, medicine cannot restore the lost tissue. The doctor cannot cure a leaky valve in the heart nor restore brain tissue which has been lost. When we demand the impossible, we are sure to be disappointed. Yet, medicine often has a great deal to offer in cases which it cannot cure. It can often enable the patient to endure his handicap better, increase his comfort, his capacity for work and enjoyment, and prolong his life. On the other hand, vast numbers of people are suffering from physical disability which could be readily relieved by proper medical treatment. People must, therefore, be informed in some way of what medicine can do for them. It is not easy to see exactly how this shall be accomplished. It is unethical for individual physicians to publish statements along this line; because it subjects them to criticism of advertising. The information must be broadcasted and reach the people who read but little. In vast numbers of cases people who read only the newspapers are the people who must be reached. It is not only necessary to bring the information to the sufferers that medicine has something to offer them, but the medical help must be placed within their reach, both geographically and financially.

A HERITAGE FOR MANKIND

It is obvious that the medical profession has a dual duty to perform to the public. Its first duty is to practice medicine in the light of present-day knowledge giving the patient the benefit of all advances which have been made in the treatment of disease. In the second place, it is the duty of the profession to increase the bounds of medical knowledge. The attitude of the public toward the increase in medical knowledge is of inestimable importance; it can facilitate or impede medical advance according to the attitude it takes toward research. *Any increase in medical knowledge does not benefit the physician primarily; it becomes the*

heritage of mankind. The physician has no more interest in medical advance from a pecuniary standpoint than has any other member of society. The physician will always be called in cases of medical distress regardless of what he may be able to do to alleviate that distress. However, his pleasure in the practice of his profession will be

greatly increased if he is in a position to render truly valuable service. If the public will but realize that any increase in medical knowledge belongs to us all and is just as important to the layman as to the physician, the way will be prepared for a vast increase in our ability to combat disease and suffering.

Diploma Mill Expose Points Out Necessity for Basic Educational Requirements, Brundidge Asserts

"Let us have one law for all, or none at all."

Harry Thompson Brundidge, a special writer on the editorial staff of The St. Louis Star, at St. Louis, Mo., is the man who exposed the national medical diploma mill ring, which created a nation wide sensation. Brundidge's articles in The St. Louis Star and in Collier's Weekly will be recalled by many. Since the exposure, which began in October, 1923. Brundidge has visited nearly every state in the union, unmasking fakers and co-operating with the state and federal authorities in prosecuting the ring leaders. Brundidge is not, as has been reported at various times, in the employ of the American Medical Association, or in the employ of any individual, clique or corporation other than The St. Louis Star, a daily newspaper.

THE WISCONSIN MEDICAL JOURNAL
Milwaukee

December 1, 1924.

Mr. Harry T. Brundidge,
The St. Louis Star,
St. Louis, Mo.

My dear Mr. Brundidge:

The January issue of this Journal will be our Second Annual Lay Issue, the purpose of which is to advise prominent and interested laymen in this state on the problems of public health and to point out that which is possible of attainment through preventive medicine.

It is well known to the Editorial Board of this Journal that you are the one directly responsible for the recent exposé of the so-called "diploma mills." Personally I have followed with great interest your endeavor to break up this ring for all time.

While Wisconsin, through the protection of a splendid medical practice act, did not suffer at the hands of these diploma mill physicians, it occurs to me that you may have a message for the laymen of this state. I take this opportunity to assure you that our columns of this Lay Issue are open to you for any message you may wish to send to Wisconsin.

Yours very sincerely,

J. G. CROWNHART,

Managing Editor.

THE ST. LOUIS STAR
Star Building Star Square
St. Louis, Mo.

December 10, 1924.

Mr. J. G. Crownhart,
The Wisconsin Medical Journal,
Milwaukee, Wisconsin.

My dear Mr. Crownhart:

I am glad to accept your offer, for my interest in carrying on the work I have started is indeed sincere.

Sixteen months have passed since the national medical diploma mill ring was exposed. During this period the ring that turned out hundreds of fake doctors, changing laborers into "doctors" almost over night, has been shorn of its sinister power. Wisconsin and its citizens are indeed to be congratulated that a far-seeing medical profession of its state enacted a medical practice law that, administered by a conscientious board of examiners, kept these fake doctors from preying on its citizens. Hundreds of these fakers from Connecticut to California have been exposed, some of the ring leaders have been convicted while others are at liberty on bond, awaiting trial.

Early in August, 1923, I left the office of the St. Louis Star, a newspaperman. Then I dropped out of sight; lost my identity. I became Harry Thompson, a coal salesman. Two months to a day after I left the office of The Star I returned—a doctor of medicine and a chiropractor to boot. The diploma mill had made me an M. D. and a D. C.—for a price. I became a doctor of medicine in just 57 days at a cost of \$1,350. But the price of my pretty chiropractic diploma together with a course



Harry Thompson Brundidge of the St. Louis Star, who, as "Harry Thompson, coal salesman," exposed the diploma mills and now points out the necessity for one basic examination for all who desire to practice any method of treating the sick.

of instruction, charts, text books, and a table upon which to wrench the spines of my unfortunate victims, was but \$89.50.

BARS TOO HIGH HERE FOR FAKE M.D.'S

My purpose in going through the mill was, of course, to expose the methods by which fake doctors were being turned out. But suppose I had not been a writer only seeking the truth. Suppose I had been one of the many who wanted medical credentials for the purpose of imposing upon a gullible public. How many men, women and children would I have killed by now?

As a result of this exposé the laymen are just beginning to realize the importance of a minimum of protection through a good medical practice act such as yours in Wisconsin. The bars were too high in your state for the fake M. D. with his purchased diploma but that was not the case in many

states such as Missouri, where the diploma mill ring had its headquarters; the District of Columbia, where the ring had a college; Massachusetts, where fakers were ground out; or Delaware, where other fake schools operated. None of those states required college work as a part of premedical education. The laws of Colorado, for instance, do not require that an applicant for a license to practice as an M. D. shall even have been graduated from a medical school. Little wonder that Colorado was flooded by quacks and diploma mill "graduates;" little wonder that they went to the mountain state by the car load.

It is true that the diploma mills for "graduating" doctors of medicine are closed at last. But my investigations in one state after another point to a situation that is equally bad. Many states have adopted splendid laws for the protection of the public against quack *physicians*. Wisconsin is one of those fortunate states.

"DOCTORS OF SOMETHING OR OTHER"

Unfortunately, however, other laws have been passed in some of these states, including Wisconsin, which almost nullify their medical practice acts—the laws that are the safeguard of the public from the uneducated doctor. These "other laws" provide for the licensing or exemption from licensure of "practitioners" other than the regular doctors of medicine. Such practitioners are always "doctors of something or other." Usually, I might say almost without exception, they are persons not qualified by education or training to treat the sick. They become members of some new healing cult, not usually because they believe in that cult, but because it offers a short cut to a degree of some kind or another that will license or permit them to "practice." Such "other laws" are a daily menace to public health and to the individual laymen because it has been found that these other "practitioners" after being licensed, almost without exception, assume all the functions of the physician and surgeon not to mention the assumption of that title they so much admire—that of "Doctor."

These things stand to reason: You do not go to a hardware store to buy meat; neither do you call in a furnace expert to paint your house, nor do you call in a day laborer when your radio set persists in playing dead.

WHO TESTS YOUR CATTLE?

You in Wisconsin spend thousands of dollars annually to test your cattle for tuberculosis. Who does your testing? Do you call upon someone to rub the spine of a tuberculous cow? What farmer would think of such a thing. You, a farmer, have some good hogs and one bright morning you find those hogs are sick. There are known medicines for hog cholera but rubbing the spine, twisting the tail or giving the hogs a little electrical shock are not included in the methods you use. A good many people find the horse indispensable. When that horse is ill, whom do you call? Would you call a man who says that the only treatment for all ill horses is to adjust their vertebra or do you call a veterinarian, a man who is capable through education of determining the nature of the horse's ailment and who then administers whatever treatment he deems best suited to the particular ailment he finds in this instance.

It doesn't make any difference what one may claim to be a "doctor" of when it comes to treating the sick. The fact remains that he holds himself out as capable of treating the sick understandingly. And if we do not use a man to treat our dog or our cattle who is not able to do so *understandingly*, how much less willing we should all be to have an ignorant man treat us, our families, or our friends.

THE UNEDUCATED "PRACTITIONER" ENDANGERS ALL

You may say you have a family physician and that lets you out. Ah—but does it. Suppose the child that sits next to your boy in school has a sore throat. He gets in the hands of one of these "doctors of something or other," and that "doctor" gives him a "sucker machine treatment" and sends him back to school. And a few days later that boy has diphtheria and then your boy has it. All because of an ignorant practitioner. It does mean something very vital to you despite the fact that you, yourself, know enough not to be treated by such men.

This is my idea!

Every person who treats human disease or injury by any method or system what-so-ever should first have a fundamental and thorough training in the fundamental sciences that deal with the human body in health and in disease. He should have this basic training so that he may know not only when to use some particular method

or the particular method in which he claims to be competent, but also *when that method should not be used*. The wrong use of any remedial agent in the treatment of a patient may be far more disastrous than if no treatment were given at all. The omission of the right remedy may indeed have serious results, a wrong treatment may result in the death of the patient.



Back in the days when Brundidge as "Thompson" was the confident of leaders of the diploma mill ring, he was secretly "snapped" while strolling with Prof. Sachs, a ring member.

Let the practitioners practice what they will. Let each person be his own judge of whom he desires to call when he is ill. Let them "cure" by rubbing the top of the head with the second knuckle of the left hand or by wiggling the big toes of the feet. Let them use special jerking tables, sucker machines and other methods of "treating" the sick. *But first make certain that the persons who practice every or any form of the healing arts have a thorough fundamental education.*

ONE BASIC STANDARD FOR ALL

One educational standard must be established for all who practice the healing art, regardless of

DEPARTMENT OF MEDICINE

National University of Arts and Sciences

ARTS AND SCIENCES

Saint Louis, Missouri

WHEREAS Harry Thompson **HAS PURSUED**

the required course of study and has presented satisfactory evidence of a sufficient degree of knowledge to entitle him to the Degree of


Doctor of Medicine

Now therefore, the National University of Arts and Sciences by the authority vested in it by the Commonwealth of Missouri, does confer upon him this degree, with all the rights, privileges and honors thereto pertaining; in token whereof, he is presented with this

DIPLOMA

In Testimony Whereof, We the Officers and Administrators of the National University of Arts and Sciences have attached our signatures and affixed the great seal of the Corporation, Four in the City of St. Louis, State of Missouri, this 23rd day of May, 1916.

Board of Administrators



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"Harry Thompson (Brundidge), coal salesman," was awarded this diploma in 57 days at a cost of \$1,350. When Brundidge secured this diploma he was able to expose the "diploma mills" that had ramifications into many states because of inadequate medical practice acts or inadequate law enforcement. Wisconsin was not one of those states.

the treatment advocated. Require everyone who wishes to practice to prove that he possesses this fundamental and basic education and then let him practice what ever his common sense may indicate.

Grant, if you like, that there is good in all forms of healing. The good that you say exists will in no way be diminished if those employing such methods are first required to obtain a thorough training in the fundamental sciences. Let that training be required of all whether they desire to be doctors of medicine, naprapaths, naturopaths, Chiropractors, spectro-chromo therapists, or what not.

Let there be one board to pass upon these basic and fundamental requirements for all. Then, if after passing this basic examination, additional examinations are required or desired in the different fields of treatment of disease, all well and good. This is the time for separate boards or exemptions. But not until they have all alike passed that basic examination demonstrating that they are capable of using care and skill in determining what is wrong with their patients. If they cannot do that, you tell me how they can know whether they are using the right treatment or the wrong treatment?

As I said in the opening paragraph, the diploma

mills have been shorn of their sinister power, but the big work lies ahead and in that work you and I and each one of us must play a part. It is our work. We are all of us entitled to this minimum of protection from fraud, deceit and ignorance. I live in Missouri and you live in Wisconsin. But each of us plays a part in electing the men that make our laws. Let us tell our assemblyman and our senator what we want and then follow up and see that we get it.

A DEATH TRAP

In conclusion, let me tell you a little story of what happened to a man who walked into a death trap that was the office of a quack.

The man was Albert C. Hoody of Unionville, Connecticut.

Hoody, a youthful overseas veteran, worked in a factory near Unionville. The index finger of his right hand was mangled by a punch press machine. I. B. Cook, who worked at an adjoining machine, volunteered to escort Hoody to a doctor. The "doctor"—George Maud Sutcliffe—said amputation was necessary. He strapped Hoody to an operating table, opened four half pound cans of ether, improvised a mask of gauze, and instructed the mechanic, Cook, in the use of the anesthetic.

Cook, under Sutcliffe's direction, poured ether into his friend's face while Sutcliffe hacked away. The first joint was cut away and Sutcliffe, not satisfied, removed the second joint. When he had finished his work the four cans of ether had been used and Hoody was dead. He is survived by a widow and a baby, now a year old.

Sometime later Sutcliffe sat in the executive chamber of the State Capitol in Hartford and confessed to Governor Charles A. Templeton, in the presence of this writer, that he was a diploma-mill made doctor.

And now, you people of Wisconsin, do you think it is worth while to have a medical practice act that kept that man from your state?

And do you think it is worth while to have a basic act—to fight for its enactment if necessary—that will, in the future, keep quacks of all types outside your boundaries?

That, Mr. Crownhart, is my message to your readers—representative laymen of your state. They can have this minimum of protection if they want it. Let us have one law for all or none at all.

Yours very sincerely,

HARRY THOMPSON BRUNDIDGE.

Giving Flowers to Hospitals Brings Pleasure to W. G. McKay

"Sick people like attention. Flowers bring to them a message of cheer and hope. All blossoms help to bring this message; but my experience has taught me that most sick people like white and red blooms, and they like them in profusion."

BY FRED L. HOLMES,
MADISON

"There is a message of cheer for sick people in flowers."

It was not until last June that I realized the full import of that suggestion. I had gone to a nursery to select some late roses for the garden, when I met W. G. McKay, of Madison. He was standing beside his storage houses at Waterloo, Wisconsin, near a truck piled high with packages.

"Where are those going?" I inquired.

"To sick people in the hospitals of southern Wisconsin," he responded.

"They are not bulbs?" I questioned.

"No! Boxes of flowers."

Then the story came out. He related it in a

few sentences. His words were so interesting and carried with them such a blessing for many who are suffering that I think it all worth retelling.

"Since 1917 I have been in hospitals as a patient a good deal," said Mr. McKay. "Although I have been in the nursery business for over twenty years, I never realized fully until two years ago what a blessing God has given us in flowers. I am not a florist and do not sell blooms on the market, so I have a right to talk unselfishly.

"I shall never forget how the message first came to me. I had had an operation. The world seemed dark and the room drab and cold. I was recovering from the effects of the anesthetic. While I lay there nauseated and depressed, the



W. G. McKay of Madison and Waterloo, Wisconsin, learned first hand how flowers cheer the sick. Upon his recovery he inaugurated a system of sending flowers to hospitals to cheer the sick of Wisconsin.

idea struck me that flowers might make me feel better. I directed the nurse to send for a bouquet. No one who has not been ill can realize the cheering effect it had."

And now, before I tell you about that cargo of flowers which he was sending to the hospitals of southern Wisconsin last June, there is something I desire you to know about Mr. McKay. He was born in Milwaukee, Wisconsin, about fifty years ago. He received a common school education, and as a boy went to work in a Milwaukee factory. Meantime, his brothers had gone into the nursery business. Every night Mr. McKay would add up his accounts to see how he was getting along with his savings. He was receiving seventy-five cents a day. He didn't like the routine of factory employment.

"I enjoyed the country," Mr. McKay explained in recounting his early aspirations. "I liked to see the sun drying out the earth in the early spring; warming the first shoots of green that come with the sunny days, and I reveled in the

smell of the countryside, rain-washed and turning gorgeous under the mystic touch of nature."

After Mr. McKay had worked in the shops for over a year, he received a letter from his brothers. There was an opening in the business. That was the beginning of the nursery that has made his name familiar wherever trees and shrubs are sold in the Upper Mississippi valley.

Then, in 1917, physicians discovered that Mr. McKay was suffering with diabetes. He was nearing his forty-second birthday. He had made good in his business. It had expanded beyond all of his expectations.

"Eight years ago, the announcement that a person had diabetes had a more menacing aspect than it now has since the discovery of insulin," Mr. McKay declared with emphasis, when he saw I was amazed that he was still living.

"I was treated at different times in hospitals until two years ago this January I weighed only 91 pounds. Up to that time, I had been unable

to obtain the insulin treatment, wherever I had gone.

"It was while my weight was slowly diminishing that I was admitted in May, 1923, to the Bradley Hospital at the University of Wisconsin. I stayed there two months. In the years that I had been dieting I had come to know a good deal about the value of foods and just what should be eaten. So I employed some of my spare time instructing other diabetic sufferers in food values.

"Even this did not occupy much of my leisure.

"Now in this hospital were scores of crippled children from all over the state undergoing treatment for many deformities. I came to love them and often sent to my nursery to get them flowers. Soon they came to call me the 'flower man.' When I saw all the happiness that other sufferers got out of blooming plants, I learned a lesson that I shall never forget. It was one worth knowing. And here it is.

"Sick people like attention. Flowers bring to them a message of cheer and hope. All blossoms help to bring the message; but my experience has taught me that most sick people like white and red blooms and they like them in profusion."

Under the treatment of insulin Mr. McKay regained his strength. He soon weighed over 130 pounds, which was the greatest weight he had ever known. He left the hospital; but not to forget one discovery he had made there.

Late last spring, when his peony beds at the

nursery came into bud, he directed that 10,000 be picked, boxed and sent to the hospitals of southern Wisconsin.

"That's a load of cheer for a lot of sick people," declared McKay as we watched the truck load of flower boxes on their way to the express office. "I might have sold those blooms, but there would have been little enjoyment in that. I shall be content when scores of people who never have anyone to send them flowers while sick, see these blooms."

Then he told me of a determination. Part of his blooms every year are going to sick people. He has started a custom that he has directed shall be continued at his nursery.

"I know what it is to be sick and to be cheered with flowers and I guess I have a right to gladden others in the same way," he explained. "Many can help in this little mission. Do you know, I think there should be a greenhouse in connection with every hospital so that flowers may find their way into every ward. Some there are who cannot afford them, but they should get them all the same. I speak from a patient's experience when I say that. I know of nothing that can lift the burdens from the depressed more than a bouquet. I hope that those who have a desire to brighten the days for sick people will give some time and effort in doing what they can to keep the cheerful flowers near the bedsides of those who are ill. To help in this mission will continue to be one of my pleasant works in life."

Telling The Doctor Your Troubles Relieves You and Aids Him to Effect Your Early Recovery

BY VERNE E. EASTMAN, M. D.,

WAUSAU

"What seems to be the trouble?"

Isn't that the question your doctor asked you the last time you needed his aid? I thought so; it is the question that all of us ask although we may not use exactly those words. You may have wondered why the doctor took so much of your time in getting your "history." There is a reason and all should be familiar with that reason so that they may be of material assistance to their doctor in the future.

In arriving at a diagnosis and instituting treatment, the doctor is guided largely by three factors: first, what the patient tells him; second,



what he finds on examination of the patient, and third, the results of laboratory tests.

The relative importance of these factors varies with the nature of the case. Obviously, it is of little value to know that one, suffering from a broken leg, has had measles or any other malady previously. On the other hand, in diseases of a

chronic nature, or effecting parts of the body inaccessible of direct examination, an accurate account of the symptoms is most important; for you may give a clue to the true nature of the condition. In many cases, a single fact in the course of a disease, or even the individual's previous experiences, is of more value than the most expert examinations or data obtained from the most complicated laboratory tests.

Although the patient is able to assist somewhat by cooperation during examination, he has no part in the usual laboratory tests. However, he and not the doctor can supply the information known among medical men as the "history." With the advancement of medical science and a better understanding of how the body functions, both under normal and diseased conditions, more and more importance attaches to this phase of the examination and success or failure in the case often depends on the information the physician obtains from the patient. As simple as it may seem, this is often a very unsatisfactory procedure due to carelessness and misunderstanding on the part of the patient.

Many times patients are so inexact in their statements as to make them of little value. "I have just the awfulest pain all over," or something similar is not at all uncommon. After spending considerable time, while perhaps others are waiting, the doctor may find that there are dull aching pains in several of the joints, which are "awful" merely because of their persistence. At other times it is difficult for the physician to obtain the facts, because the sufferer comes already firmly convinced of the nature of his trouble. Unfortunately many erroneous ideas are handed down from generation to generation and intensified by unscrupulous quacks and venders of so-called "patent medicines."

In the majority of cases a person suffering from any kind of abdominal distress, especially if it be in the upper part, will greet the doctor with a statement that he is suffering from stomach trouble, and is unwilling to believe otherwise. A pain in the back, no matter what its nature or in what part of the back it is located, convinces the average individual at once that he is suffering from kidney trouble. As a matter of fact, pain in the abdomen is the result of stomach trouble in only one case out of five or ten, and pain in the back is seldom caused by disease of the kidneys.

Again not a few people fail to give the doctor

the facts, and often deny them, because they fear they are due to their own indiscretion. They should remember that the mission of the doctor is to relieve suffering and that every practitioner carries multitudes of secrets, which are tactfully withheld even from closest friends and relatives. The law, recognizing this, exempts him from being required to disclose them, even on the witness stand.

Many other situations, varying from ridiculous to pathetic occur in the work of obtaining a history, which need not be mentioned. However, if best results are to follow, the patient should do his best towards supplying the information which he alone can give, and to this end a few suggestions might be of service:

1. Give all the facts accurately and concisely in their order of occurrence.
2. Avoid adding unrelated facts which consume time and detract from the real story.
3. Do not allow your ideas or wishes to influence your statements.
4. Do not attempt to interpret your symptoms. The doctor is trained for this and you are paying for his services.
5. Study questions that are asked and answer them directly.
6. Do not withhold facts which might be important because the doctor fails to ask concerning them.
7. If you have more than one complaint it is usually well to state both as there may be a relation between the two.
8. If you have previously received treatment elsewhere, say so, as this might have some effect on the present symptoms and treatment.



Some 124 blind children of Wisconsin attend this state school for the blind at Janesville. Infantile blindness, the largest contributor to blindness in this state prior to 1911, is now practically unknown through preventive means that costs the state but \$1,500 annually. It would cost the state that much to educate three blind children for one year. Which is better?

In War "Unfit for Service;" In Peace "Handicaps to Success."

"Of 5,848 children examined in the Milwaukee Vocational School, more than 13,000 physical defects were found in the entire group, or about two and one-half physical abnormalities per child."

BY OSCAR LOTZ, M. D.,
MILWAUKEE.

"Let us not forget that the entire child goes to school—body and soul and mind. Any system of education which ignores one or the other of these factors will be to the disadvantage of the child."—Rosenau.

Miles Thornton was really a fine appearing fellow. His splendid physique, good color, clear skin and sparkling eyes were usually enhanced by happy smiles. He was furthermore a likeable chap and while at college was popular with both instructors and fellow students. While active in college athletics Thornton was unable to make the football or track teams. This was said to be due to being "short-winded since childhood." In golf he stood ace high during his last two years.

After graduation Thornton entered the business with his father and because of his good physical appearance and charming personality just naturally made good.

Along came the year 1917 and with it the entrance of the United States into the World War. The Thornton family tree was resplendent with members who had fought for their country, so it was but to be expected that Miles too should see military service. Anxious to surprise his parents Thornton decided not to wait for the draft, but early one morning presented himself at the recruiting station as a volunteer. The preliminary steps for enlistment having been completed all that remained to become a member of Uncle Sam's navy was the physical examination. To our hero this was a formality; outside of an occasional sore throat as a child and the "short windedness" which he had "inherited from his father" he had never been sick. The possibility that anything could be wrong physically never even entered his mind. Head, eyes, ears, nose, throat, teeth and neck were carefully examined; his chest was thumped and stethoscope applied—next in order was the heart. The doctor listened, then listened again. He made Thornton do double time for exercise and again applied the stethoscope—and finally Thornton was put on the examination table and the heart again sounded. Although saying nothing Miles resented the time the physician spent on the exam-



The start of any physical examination. Determining the height and weight.

ination. He was perfectly well, so why all the care? A few more questions by the doctor and then the answer "Sorry young man, you certainly looked good to me, but that heart of yours was damaged some time ago and will not stand the strain of the soldier's life."

Thornton was too much taken by surprise to ask questions, but quietly dressed and left the recruiting station. Instead of going back to his office at once, Miles walked about more or less aimlessly and blaming the government for not having better trained physicians as examiners, for Thornton knew that nothing was the matter with him. He decided not to tell his parents about his failure to pass, but to wait for the draft, enter the regular army and then show up that young naval examiner. But again Thornton fared no better. The examiner at the district board shook his head and



Testing the Blood Pressure. An Important Part of a Complete Physical Examination.

referred him to the advisory board. The specialist on this board went over his heart very carefully, but to Thornton's dismay signed his blank "not fit for service—cause—valvular heart disease."

THE THORNTON "PRIDE"

The Thornton family circle was a sad and dejected group that evening. A careful analysis of their feelings, however, would probably have revealed the fact that the Thornton "Pride" was hurt more than anything else. The following day a heart specialist was consulted, not alone to confirm the diagnosis but possibly to obtain some information as to the causes of the heart trouble.

After making a careful physical examination and going very searchingly into the history of young Thornton ever since his early childhood, the physician explained that the causes of valvular heart disease were numerous and varied, but that the most common cause in children and young adults was a bacterial infection of some kind. In the case of Thornton the physician suggested that in view of the history of frequent colds as a child, and because at the present time Thornton's tonsils were diseased and scarred, that these were the probable source of infection of the heart valves. In his talk the doctor also mentioned that acute rheumatism in children and chorea (St. Vitus Dance) seemed to be frequently associated with acute tonsillitis and heart disease.

The above little incident is a true and not unusual story for during the draft examinations hundreds of families had similar experiences.

Examination for life insurance and the general health examinations, so deservedly popular today, again and again reveal physical defects more or less serious of which the individuals are entirely unaware.

TWO AND ONE-HALF DEFECTS PER CHILD

This fact was strikingly illustrated in the examination of 5,848 children of the Milwaukee Vocational School made under the supervision of the Wisconsin Anti-Tuberculosis Association about one year ago. These children, whose ages ranged from 14 to 19 years were presumably healthy children—working in stores, shops and offices 5½ days a week and going to school ½ day per week. The examination given was a very thorough one, including the head, eyes, ears, nose, throat, mouth, teeth, neck, heart, lungs and blood pressure, but because of its necessary limitations a certain num-



Examination of the mouth and throat. Infected tonsils and decayed teeth may carry infection to other parts of the body.



Defective eyesight has been the cause for many a "failure" in school. Every periodical physical examination should include a test of the eyesight.

ber of defects were undoubtedly overlooked. The result showed more than 13,000 *physical defects* in the entire group or about *two and one-half physical abnormalities per child*.

Space does not permit a discussion of all conditions found, but it might not be amiss to call attention to some of those defects found most frequently in this group of average children.

Of 3,248 children having abnormal tonsils, in 2,237 the tonsils were diagnosed as infected. Among physicians who have had much experience with heart disease—every child with infected ton-

sils is a potential heart case. That is to say, since we believe that diseases of the heart are very closely associated with infections of the tonsils—the danger of developing heart diseases is very, very much greater in the child with diseased tonsils than in the child with normal tonsils.

HANDICAPS TO SUCCESS

That defects of the eyes or impaired vision in a developing child is a very serious handicap and places the owner at a distinct disadvantage cannot be denied. Yet of the children examined 2,364 or 44 per cent showed something wrong with the

RESUME

MILWAUKEE VOCATIONAL SCHOOL PHYSICAL EXAMINATIONS

	Boys		Girls		Total	
	No.	%	No.	%	No.	%
Examined	1,906		3,442		5,348	
10% underweight	115	6.0	301	8.4	416	7.7
20% overweight	91	4.7	575	16.7	666	12.3
Skin disease	346	17.1	202	5.8	548	10.2
Defective vision	444	23.3	794	23.0	1,238	23.1
Total ocular defects	555	50.2	1,409	40.9	2,364	44.2
Defective hearing	74	3.8	41	1.2	115	2.1
Total aural defects	154	8.0	126	3.2	280	5.2
Dental defects	829	43.49	1,443	41.9	2,272	42.4
Tonsillar defects	1,270	66.63	1,978	57.46	3,248	60.73
Nasal defects	265	13.90	203	5.89	568	8.75
Simple goiter	97	5.08	728	21.15	825	15.4
Cardiac defects	77	4.04	189	5.49	266	4.97
Tuberculosis	47	2.46	20	0.58	67	1.24



Withdrawing Drop of Blood for Study.

eyes. Is it fair to the child that he be labeled "backward" or "stupid" by the school teacher when the true reason for his inability to keep up with his classmates is some difficulty with his eyes?

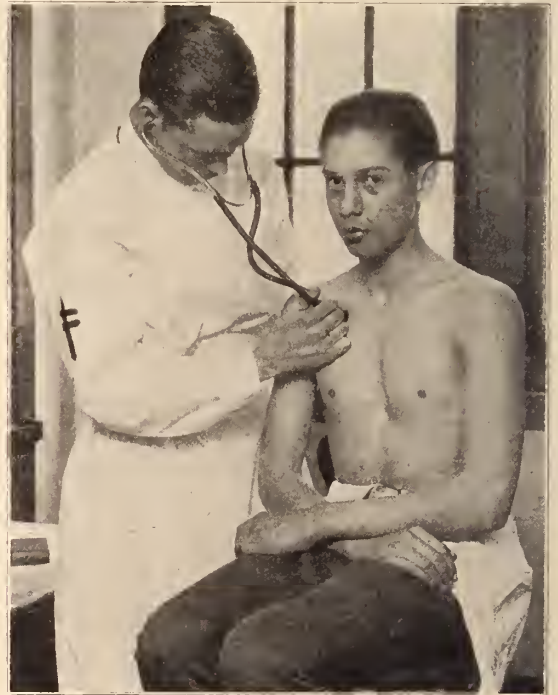
Dental cases likewise showed a high incidence. More than 2,272 children or 42.4 per cent were



Preparing the slide to be put under the microscope for the blood count. The second step in the blood test.

placed in this category although the examination of the teeth was not carried out by a dentist. Had this been done there is no doubt that the number of children showing dental defects would have been considerably higher. We wouldn't expect a carpenter to do good work with dull and broken tools; why then, do we expect our children to grow up and develop normally with poor teeth?

Other abnormal conditions found in considerable numbers of children were simple goiter, 825 or 15.4 per cent; skin diseases, 548 or 10.2 per cent, and heart defects, 266 or 5 per cent.



Listening for indication of disease of the lungs.

GOOD HEALTH AN ASSET

Do these figures give us something really serious to think about? Practically all of these children were presumably normal and healthy at birth, and yet by the time they reach the age when they are beginning to step away from the protection of home and parents very few are normal, healthy boys and girls. Most of us will agree that the most valuable asset in an individual's life is good health—and yet we allow our children to enter life's real struggle seriously handicapped by physical defects, more of which could have been prevented or remedied if taken in time. Of what value is excellency and proficiency in the three R's when broken body and disease prevents the appreciation and enjoyment of these learnings?

Malignant Smallpox Visits Neighboring States; Individual Protection by Vaccination Means Community Safeguard

BY H. M. GUILFORD, M. D.,
 DIRECTOR, BUREAU OF COMMUNICABLE DISEASES,
 WISCONSIN STATE BOARD OF HEALTH.

During the year 1924 malignant smallpox has made its appearance in some of the large cities in states neighboring to Wisconsin. The deaths all told have mounted into the hundreds. This is the world-old condition in respect to smallpox that flourishes wherever there are a considerable number of unvaccinated individuals.

We are inclined as a race to forget the great prevalence of smallpox in the days before protection by vaccination was known. We have but little conception of the part which this disease played in commerce, in family life, and in the general progress of the human race, when its seed was widely and firmly planted among the people.

took advantage of a long-ruined observation that the accidental inoculation into the human skin of cowpox—a harmless ailment of cattle—resulted in protection against smallpox. By a number of experiments he proved to the satisfaction of the scientists of that time that this was correct, and in 1798 he published his treatise upon vaccination. For obvious reasons Jenner's work became promptly known, and in the course of time vaccination was extensively adopted either by common custom or mandate of law. The table appended here shows the effect upon the mortality of the communities specified:

ANNUAL DEATH RATES FROM SMALLPOX PER MILLION POPULATION

Location	Before Vaccination		After Vaccination	
	Years	Deaths	Years	Deaths
Prussia				
(East province) ..	1776-1780	3,321	1810-1850	556
Prussia				
(West Province) ..	1780	2,270	1810-1850	356
Sweden	1774-1801	2,050	1810-1850	158
Trieste	1777-1806	14,046	1807-1850	340
Berlin	1781-1805	3,422	1810-1850	176
Copenhagen	1751-1800	3,128	1801-1850	286

Innumerable other statistics attest to the great value of vaccination. There is but one word to remember in the prevention of smallpox, and that is vaccination.

THE PRESENT STATUS OF VACCINATION

Compulsory vaccination laws have long been in force in many states and some foreign countries. The further we get away from the Eighteenth Century and the more smallpox is out of our mind, the more we are inclined to forget the old prevailing conditions and scout the urgency of vaccination. It so happens that in a number of states compulsory laws have been repealed, or such laws have been non-existent in the newer settled portions of the land. Moreover, a mild type of smallpox causing but few deaths in proportion to the number of cases has been prevalent in the United States since the Spanish-American War, and has served further to disarm people of the old-time dread of the disease.

In consequence there has grown up a population, mostly of school children and young adults in



A mother with smallpox was sent to the hospital; the children went with her. One, never vaccinated, took the disease; the other two, vaccinated a year before, remained with smallpox patients several weeks perfectly well. ("Acute Contagious Diseases," Welch and Schamberg.)

A noted physician of France, living in the Eighteenth Century, stated that one-fourth of all mankind were maimed and crippled by smallpox, and that one-tenth lost their lives by it. This figure is substantiated by other Old World records, declaring that the average annual deaths from smallpox amounted to about 3,000 out of every million inhabitants. Imagine, if you can, the yearly loss of 8,000 lives from smallpox in Wisconsin, and the hideous pock-marking of 18,000 more, some of whom become blind and some crippled, and you will have a picture of the proportions in which the disease existed prior to the year 1800 A. D., among western civilizations.

Towards the close of the Eighteenth Century Dr. Edward Jenner, a country doctor in England,

SMALLPOX IN WISCONSIN

CASES REPORTED ANNUALLY IN THE LAST DECADE

	Cases
1914.....	3,302
1915.....	1,817
1916.....	867
1917.....	1,280
1918.....	2,600
1919.....	3,297
1920.....	5,668
1921.....	5,116
1922.....	1,790
1923.....	1,338

many communities who are only in part vaccinated, and that voluntarily or after some local epidemic. And just in proportion as the bars have been let down smallpox has seemed to enter. In the history of smallpox it is characteristic that mild outbreaks prevailed for a period only to be succeeded by more malignant forms. And it so happens that of late years a number of communities in the United States have had visitations of the old-time deadly type, causing the loss of many lives and which were controlled only by tardy and extensive vaccination.

In the present state of affairs we are likely to continue to look forward to a considerable occurrence of one type or another of smallpox, especially in the poorly vaccinated communities. It, therefore, devolves upon the individual to protect himself from smallpox if he wishes with certainty to avoid a possible and usually unexpected attack.

FURTHER FACTS ON VACCINATION

The United States Public Health Service is recently responsible for the statement that vaccination should be performed upon children before entering school. It should be performed again between 12 and 20 years of age, and again between 40 and 50 years of age. If at any time there is an exposure to smallpox, vaccination should be done again. The above rule is a good guide to go by. The compulsory law of Germany applies to all and requires vaccination before the age of one year and again at the age of 12. The German Empire has been held up as an example of freedom from this disease. Smallpox is notoriously fatal in infants and small children, and they are likely to have a severe case even when exposed to the mild type. Vaccination at one year of age is preferable to waiting until the child is older.

There is no doubt of the beneficial effects of a single vaccination upon all of the citizens of the state. This relative protection tends to obstruct the appearance of cases which serve as centers for further spreading, just as fire fails to start and gather headway in poor and unsuitable consuming material. The protecting power of a single vaccination lasts for an indefinite period. It may be five years or it may be 40 years. An old vaccination cannot be trusted to protect a person after an exposure to smallpox. Upon this point we are calling attention to the following statistics of the outbreak of malignant smallpox in Denver, Colorado, in 1922:

FATAL CASES

Total deaths	Never vaccinated	Vaccinated
263	240	23

Of the 23 deaths, 16 were vaccinated more than 40 years before; two between 30 and 35 years before; one 20 years before; one 13 years before; two seven years before, and one was vaccinated after exposure. There were three cases of malignant smallpox in this outbreak which occurred not less than seven years after vaccination but which recovered. The lesson from these figures is similar to that from figures gathered elsewhere.

You May Not Like Vaccination

But It DOES Stop Smallpox

If you belong to the deeply thoughtful class that denounces smallpox vaccination, you will be interested in news from England.

Over there many of the mentally lower class decided that vaccination is foolish, unnecessary, poisons the blood, etc.

Consequently, vaccination has fallen off and smallpox has spread to an alarming extent, even to the extent of seriously interrupting business. And that means a great deal in England and America.

You may be interested also to know that in India, where the natives decline to offend their religious ideas by having "substance from a cow" injected into them, there are as many as five hundred thousand cases of smallpox in one year. Vaccination, at least, prevents smallpox. —The Wisconsin News.

How Wisconsin Has Reduced The Death Toll from Communicable Diseases

BY L. W. BRIDGMAN,

BUREAU OF EDUCATION, WISCONSIN STATE BOARD OF HEALTH.

"It is within the power of man to do without all infectious diseases."—Pasteur.

"Public health is purchasable. Within natural limitations a community can determine its own death rate."—New York State Department of Health.

"An ounce of prevention is worth a pound of cure."—An old adage.

Any one of these public health axioms can be used to prove the value of organized efforts in disease prevention. Medical research and practice and public health administration have been the mediums for the striking advance in public health work, which has lengthened the average span of life and contributed to the productive enjoyment of the people.

Typhoid has declined in a miraculous manner. Diphtheria has been rendered harmless for those judicious enough to take advantage of proved preventive measures. Tuberculosis, once thought incurable, is steadily giving way. Infant deaths are definitely declining where public health work is done, and in Wisconsin the total of such deaths has diminished in the face of the fact that the births and total population have increased yearly.

One great life insurance company spends a million dollars a year in health educational work. It finds the expenditure fully justified; for its campaign has netted a saving of \$5,000,000 a year in death losses. This saving has occurred chiefly in those diseases against which an active campaign has been waged and educational measures promoted. In view of this, it is illogical to say that so large a saving is accidental.

One of the guides to a state's health rating is its mortality figures. Wisconsin's general death rate (all causes) for 1923 was 10.6 (deaths for every 1,000 people). Our death rate for 1922 (10.0 per thousand) was the lowest in the state's history, and compared with 11.8 for the registration area, which comprises 85 per cent of the population of the United States.

The striking fact about the infant mortality figures for Wisconsin is the steady decline in child deaths during the last few years, which is the

special period in which active educational work has been done in this field of public health. The advance is intimately founded upon continued education on this phase of the health problem—local, state and national; upon the efforts of the medical profession and of the public health nurses, and upon the watchful care by municipalities to see that the milk and water supplies are safeguarded from dangerous organisms.

A DRIVE FOR "SAFE BABYHOOD"

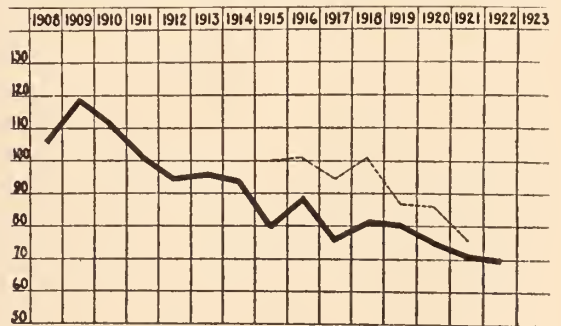
In 1923, with 4,153 deaths of infants under one year, Wisconsin exhibited an infant death rate of 69.9 (per 1,000 births), which is the lowest point ever reached in this state in the drive for safer babyhood. This rate is about eight points lower than for the registration area.

INFANT MORTALITY

UNDER ONE YEAR OF AGE

DEATH RATES PER 1000 BIRTHS

106.6	119.7	112.2	102.7	95.1	96.9	94.6	81.7	89.3	77.7	82.0	80.9	76.5	71.9	70.2	70.6
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TOTAL DEATHS

8543	6027	5773	5315	5004	5273	5506	4753	5312	4696	4980	4446	4566	4473	4118	4153
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— WISCONSIN
- - - REGISTRATION AREA

DEATH RATES IN REGISTRATION AREA

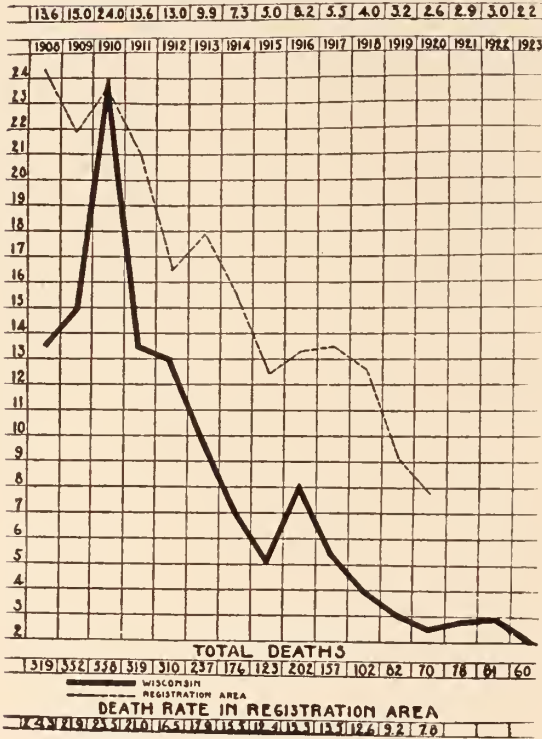
										100.0	101.0	94.0	101.0	87.0	86.0	76.0
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Driving Down Death Rates in Wisconsin.

For 1922, computations show that 1,909 fewer babies under one year died in Wisconsin than died fifteen years before, despite the fact that 8,000 more babies are now born yearly. It is revealed by present figures that the death rate for diarrheal diseases in children under two years of age alone

TYPHOID FEVER

DEATH RATE PER 100,000 POPULATION.



Driving Down Death Rates in Wisconsin.

has been reduced more than 50 per cent in recent years.

The aim of the present child welfare program under the State Board of Health is to reduce, measurably, the deaths of young children. There is every expectation that this object will be achieved. Through the measures now in operation, the next few years, in all probability, will produce a distinct reduction in these losses, besides stimulating changed health conditions that shall be safer for the children now living and for many yet unborn.

The deaths of Wisconsin mothers, incident to child-bearing, also have declined from former levels. In 1920 this rate was the lowest of all states in the registration area. There were recorded in that year 338 maternal deaths. Our maternal rate in 1922, which was 5.6, was a full point lower than for the registration area, and in 1923 this mortality dropped to 318, giving a rate of 5.4. For this low maternity mortality the credit lies largely with the medical profession. The death certificates show that 91 per cent of all confinements in that year were attended by physicians. The remainder were attended by midwives and others.

Wisconsin averages more than 200 scarlet fever deaths per year. The 1923 toll was 239. This rate is slightly higher than the registration area's. Regions with a warmer climate, such as the Gulf states, present lower death rates than northern areas, which fact brings down the death rate for the area as a whole. The figures are:

DEATHS PER 100,000 POPULATION

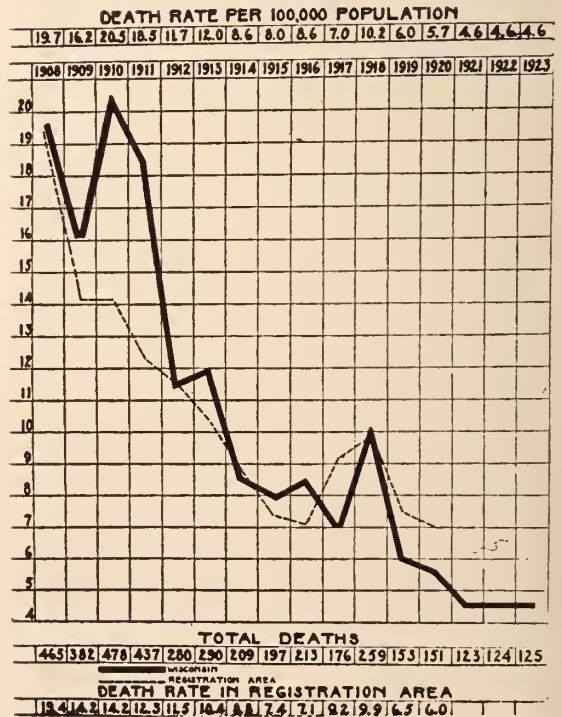
	Wisconsin	Registration Area
1908 to 1910 (av. per year) ..	11.1	11.6
1911 to 1920	8.0	5.2
1921 to 1923	7.7	....

TYPHOID CLAIMS FEW

Wisconsin now offers one of the lowest typhoid death rates in the Union. As recently as 1910 typhoid fever claimed 558 Wisconsin lives and the death rate was 24.0 (per 100,000 people). In 1923 there were only 60 such deaths and the mortality rate was 2.2, about one-tenth of the former rate. This was the lowest rate in our history. For the first nine months of 1924 there were only 22 typhoid deaths reported, leading to the conclusion that all records for low typhoid will have been broken in this state. For this favorable status there must be credited such factors as general sewage treatment, filtration or chlorination of

MENINGITIS

ALL FORMS



Driving Down Death Rates in Wisconsin.

WHY WORRY ABOUT DIPHTHERIA?



Protect Your Children Against Diphtheria By Using Toxin-Antitoxin—Then Your Worries Are Over.

many city water supplies, pasteurization of milk, and to a considerable extent the control of "carriers."

The typhoid fever rates follow:

DEATHS PER 100,000 POPULATION

	Registration	
	Wisconsin	Area
1908 to 1910 (av. per year) ..	17.6	23.2
1911 to 1915	9.8	16.7
1916 to 1920	4.7	11.3
1921 to 1923	2.6	....

The advent of antitoxin for the cure of developed diphtheria, and of toxin-antitoxin for prevention of this disease by immunizing the well has aided in reducing the deaths from this malady. In 1881 Wisconsin reported 9,714 diphtheria cases and 2,202 deaths. In 1922, after a lapse of 40 years, when the population had multiplied greatly, there is found a tremendous falling off in this disease, with 3,593 cases and 249 deaths in the year. In 1923 the deaths were 358. The comparison with the earlier years indicates the effectiveness of the newer methods of treatment and the general control exercised over

the diphtheria situation. The diphtheria figures are:

DEATHS PER 100,000 POPULATION

	Registration	
	Wisconsin	Area
1909 to 1910 (av. per year) ..	17.2	21.1
1911 to 1915	12.0	17.9
1916 to 1920	11.9	15.0
1921 to 1922	11.9	....

While always a highly dangerous enemy of children, whooping cough is not the steadily fatal disease that marked former years. The figures show a gratifying decline in the mortality from this disease, both as compared with former periods and with the fatality in the country as a whole. This decline is told in the following tabulation:

DEATHS PER 100,000 POPULATION

	Registration	
	Wisconsin	Area
1908 to 1910 (av. per year) ..	8.5	10.6
1911 to 1920	7.7	10.4
1921 to 1923	5.5	....

In 1922 there were reported to the State Board of Health 6,767 cases of whooping cough and 109 deaths, giving a fatality rate of 1.6 per cent. In

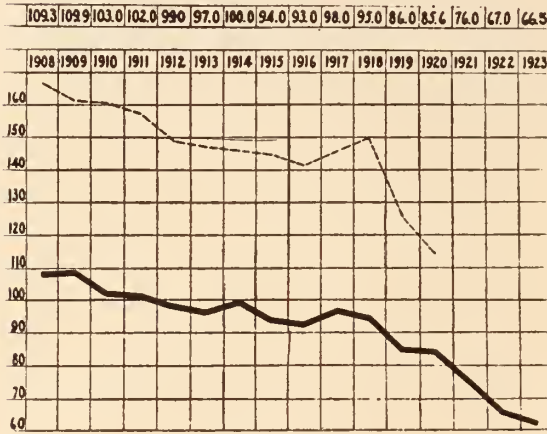
FOOLISH NOTIONS.



This Kind of Foolishness Has Cost Many a Child His Health and Life.

TUBERCULOSIS ALL FORMS

DEATH RATE PER 100,000 POPULATION



TOTAL DEATHS

2509	2546	2404	2405	2362	2328	2435	2310	2302	2460	2413	2191	2243	2017	1809	1819
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— WISCONSIN
- - - REGISTRATION AREA

DEATH RATE IN REGISTRATION AREA

167.6	160.8	160.3	158.9	149.7	147.6	147.2	146.3	142.1	147.1	150.0	125.6	114.2
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Driving Down Death Rates in Wisconsin.

1923 there were 6,308 reported cases and 153 deaths, 2.4 per cent of the cases being fatal. In the decade from 1911 to 1920 there were 1,972 whooping cough deaths in Wisconsin. The child under school age is the greatest sufferer.

EDUCATION STAMPS OUT TUBERCULOSIS

The history of the triumph over tuberculosis is already an open book to the Wisconsin public. The state has reached a new low mark for this wasting disease. In 1908, with 2,509 deaths attributed to this cause, the state had a tuberculosis death rate of 109.3 per 100,000. In 1923 these deaths were cut to 1,819, with a death rate of 66.5, the lowest in our history. Human efforts seem to have combined to attack this plague. In Wisconsin the educational process has been continued unceasingly for many years. The sanatoria system, including the "Wisconsin plan" of state aid to county sanatoria, is a big factor. Means of diagnosis are available to an extent never before known. Higher standards of work and living, such as the eight-hour law in industry, may have aided in this advance by cultivating a better resistance in the individual.

The table of tuberculosis deaths in Wisconsin for 16 years follows:

Year	Deaths	Rate	Year	Deaths	Rate
1908	2509	109.3	1916	2302	93.0
1909	2546	109.9	1917	2460	98.0
1910	2404	103.0	1918	2413	95.0

1911	2405	102.0	1919	2191	86.0
1912	2362	99.0	1920	2243	85.6
1913	2328	97.0	1921	2017	76.0
1914	2435	100.1	1922	1809	67.1
1915	2310	94.0	1923	1819	66.7

Assuming there are ten active cases of tuberculosis for every death from the disease in Wisconsin, the state is harboring 18,000 active cases needing sanatorium treatment. With only 1,300 sanatorium beds available, a tremendous shortage in our curative facilities would ensue were all to seek this specialized treatment at once. Wisconsin has gone further than any other state to provide sanatoria and, what is equally necessary, to educate the people to understand the symptoms of tuberculosis and how to prevent it.

ONE HUNDRED YEARS AGO NEARLY EVERYONE HAD SMALLPOX SCARS.



How Many Do You See Now? There's a Reason—Vaccination.

CANCER "CURES"

The French Minister of Labor and Health brings criminal proceedings against the concern that pretends to cure cancer without surgery. We should denounce that over here as undue interference. In this country anybody that can go into a trance, or invent a new religion or discover a new fangled method of wiggling the cancerous patient's big toe by way of a "cure" is allowed to practice medicine. They take science more seriously in France.—Chicago American.

June 30, 1925 Will be "Judgment Day" for Wisconsin Communities; Twenty-two Already Entered

BY EDWARD N. HEIN,

MADISON

Self-centered pride that has brought the self-designated title of "best city in Wisconsin" to as many settlements as the borders of the state confine is promised many shocks. On June 30th there will come forward one city with an official right to the title that must be recognized by all competitors.

It is a new idea to find just what city in the state stands first as a good place to live in, according to Aubrey Williams, executive secretary of the Wisconsin Conference of Social Work, the organization which has conceived and is choosing the best city.

Folks should try to become residents of the prize winning city; because it will not have won its laurels on the matter of size, tall buildings or richness. Every phase of the judging will be centered around the question of health and happiness of residents.

The fact that a community sends out stationery that it is the largest city in a county won't mean a thing.

Does the water that comes from the kitchen faucet carry germs because of improper treatment?

Do the children romp on a city playground or are they forced into the street?

How many babies die in infancy?

Is the city's milk supply pure?

How about the garbage disposal, and is the soil polluted from outdoor toilets?

How about the school facilities for the number of children that are forced to attend?

Do the city officers enforce the laws for the health protection of its citizens?

The matter of health will be the most important phase of the city rating; but there will be nine other important subjects on which towns will be quizzed. Besides health there will be the question of education, recreation, city planning, welfare work, library, industry, public safety, town and rural relations and religion.

Mr. Williams says that the rating of the cities will be left to disinterested experts who will be called in for the work. He declared that the names of the judges will not be announced until the awards are made.

Two groups of cities will compete for the prizes. The first group will be of cities of the second and third class, the second group will be comprised of cities of 10,000 population down to villages of 3,000. A prize of \$1,000 will be awarded to the city of the first group receiving the highest score. A prize of \$500 goes to the city of the second group with the best standing. A silver cup to the cities of both groups taking second place.

Anxiety to be "measured" has brought 22 cities into the rate to date. They are Fond du Lac, Kenosha, Beloit, Janesville, Waukesha, Racine, Whitewater, Sheboygan, Ripon, Waupun, Oshkosh, Appleton, Stevens Point, Wausau, Wisconsin Rapids, Marshfield, Merrill, Sparta, Tomah, Chippewa Falls, Eau Claire and Ashland.

When the judges' reports are made towns will be looking into a mirror that reflects their shortcomings. Considerable corrective municipal legislation is expected to get under way early in July.

"It is too frequently the custom to measure a city's worth and progressiveness by its bank deposits, the volume of business done, the number of industries which it has, and the general material prosperity, with but a minor emphasis upon those things which are not of a material nature," says Mr. Williams. "As a matter of fact, the degree of contentment and well-being, the general desirableness of the town as a place in which to live is dependent on the less tangible things, in a much larger degree than is at first realized; things which are not directly bound up with the material aspects of community life, but rather are related to the human welfare.

"It is with a view to emphasizing these human values and to bringing them into relief that the Wisconsin Conference of Social Work has announced the better cities contest. Such a contest becomes an inventory time for the cities interested. It affords an opportunity for self-examination and paves the way for a constructive program of improvement. This contest is in no sense to be an occasion for subjecting communities to embarrassment and undesirable publicity; for the scores will be regarded by the committee in charge



The village of Elcho, Langlade county, Wisconsin, was composed, not many years ago, of squalid, old and unsightly buildings. Charles W. Fish recently rebuilt the town into the beautiful Nuremberg village shown here.

as confidential and solely for the information of the community concerned, excepting in the case of the prize winner to which widespread publicity will be given.

“The object of this contest is to stimulate interest and pride in those aspects of city life affecting child welfare, family life, and community well-being; to promote activity among the municipalities of the state in improving conditions of morals, health, recreation, education, and various other projects related to the human side of individual and community life.”

Entrants in the contest have been actively engaged in analyzing and improving city conditions since last June, and committees will continue at work in the various municipalities until the “day of judgment.”

“Every phase of community life should be energized to its highest point of efficiency,” Mr. Williams declares. “Every citizen should be made to feel an individual responsibility for making his community the outstanding one in the state. Under the stimulus of such a contest, many new projects may be undertaken which will be of permanent value. The quickening of public interest in the various phases of human welfare makes the time peculiarly appropriate for the establishment of new standards and ideals of civic life. The various state departments at Madison, the Uni-

versity of Wisconsin, and the county and state medical societies stand ready to aid in every possible way the achieving of such results.”

Each city is to have a score card registering its rating for all conditions and activities. Although the score card will determine how any competing town rates among its neighbors, it will have the additional function of showing the town what conditions are and will call attention to what they should be. The scoring of cities is in the nature of an experiment this time, Mr. Williams declares. Interest shown in the contest assures its future repetition.

The conditions as to health and sanitation are to be of prime importance and will carry 600 points. Then in order will follow facts relative to vital statistics; health inspection, sanitation and health education in schools; auxiliary health organizations; auxiliary provision for recreation and physical development.

“The score card on health and physical development is intended for the rating of communities on their accomplishments in the prevention of disease, the conservation of health, the bringing about of improved sanitary conditions, and the encouragement of physical fitness in their relation to ideal citizenship,” says Mr. Williams. “Some parts of it may be ill-adapted but it will be fundamentally sound as a measure of achievement, if not of actual health conditions.”

Wisconsin Physicians Pioneers in the Battle Against Tuberculosis; A Winning Fight

"It was the doctors who first discovered that tuberculosis is curable, that it is contagious, and that it is preventable. It was the doctors who first taught these truths to us, organized us in the fight, and gave us the slogan, 'Prevention is better than cure—and far, far cheaper.'"

BY H. H. JACOBS,

PRESIDENT OF THE WISCONSIN ANTI-TUBERCULOSIS ASSOCIATION

It has been my privilege, one that I prize most highly, to have been present at the birth of a goodly number of social betterment movements within the last two decades but I have never yet arrived early enough to get ahead of the doctor. I invariably found that one or more of the medical profession had been "on the job" for some time.

Most conspicuously has this been true of the fight against tuberculosis, the fight by which Wisconsin's tuberculosis death rate has been cut down from 107.7 per 100,000 population in 1908 (the year when the Wisconsin Anti-Tuberculosis Association was organized) to 66.7 in 1923, and by which the dread disease has been dethroned from its firmly established place as the state's chief cause of death. Behind every accomplishment of the Wisconsin Anti-Tuberculosis Association, between every line of its history, the name "Physician" is written in large letters for those who have eyes to see.

I have been asked to write about some phase of the work of the W. A. T. A. that the non-medical public ought to know more about. So much latitude in choosing a specific topic might easily prove embarrassing, for there is a wealth of material from which to select. Records of the clinic department, for instance, are full of tragedies of life and death that wring the heart, of similar tragedies averted by the clinic's timely helping hand and of the gratitude of those who, through the clinic, have found their way to restored health and happiness. Practically every day of the year brings some new evidence that every penny of Christmas seal sale funds invested in the Health Service Training School, from which the twenty-sixth class of public health nurses was graduated on the eighteenth of December, is returning daily dividends in the form of service. From school rooms all over the state come the echoes of clear, young voices in health songs, in health plays, or in health lessons which have been furnished to the schools by the publications department of the W. A. T. A. And these are but a few of the association's enter-



MR. H. H. JACOBS,

President of the Wisconsin Anti-Tuberculosis Association.

prises, any one of which is worthy to be told about in detail and all of which have come, if we go back far enough, from a single source.

That source is the medical profession of Wisconsin, following in the footsteps of the Drs. Trudeau and the Dr. Kochs of other states and of other countries. It was the doctors who first discovered that tuberculosis is curable, that it is contagious, and that it is preventable. It was the doctors who first taught these truths to men and women outside the professional fold; aroused them both to the menace of the disease and to the ways by which that menace could be escaped; enlisted them in an organized fight against the then "captain of the hosts of death," and gave them the slogan, "Prevention is better than cure—and far, far cheaper."

It was the doctors who created the tuberculosis commission of the Milwaukee County Medical Society, forerunner of the Wisconsin Anti-Tuber-



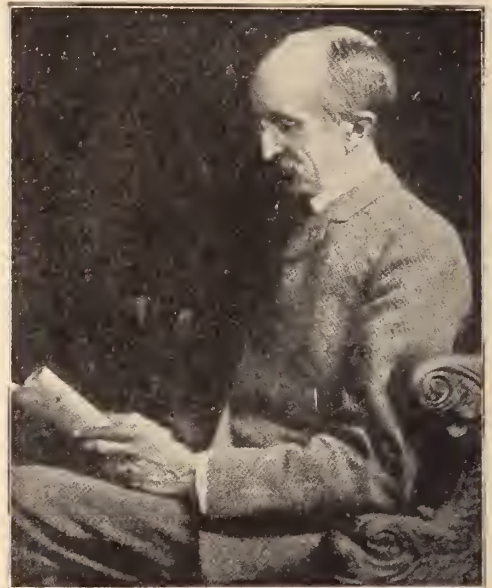
Dr. M. P. Ravenel, one of the leaders in the fight against disease in Wisconsin.

culosis Association, and who went down into their pockets for the money with which to finance the work of that commission. It was the doctors who, in 1906, took the initiative in bringing to Wisconsin the first tuberculosis exhibit ever made in this country and who did the major part of the lecturing and the furnishing of newspaper articles by which the interest of the general public was aroused to such an extent that over 53,000 Milwaukeeans saw the exhibit within the two weeks that it was on display and thus became acquainted with the A-B-C's in the new gospel of public health. It is the doctors who are the big power behind the movement today and in many communities throughout the state it is a doctor who annually devotes a large part of his time during December to conducting the Christmas seal sale by which the fight against tuberculosis is financed.

Two of the three members of the state commission whose report led to the building of the state sanatorium at Wales, the first state tuberculosis sanatorium in the middle west, and the fourth in the entire United States, were doctors. Dr. M. P. Ravenel, a past president of the State Medical Society of Wisconsin, then with the University of Wisconsin and now with the University of Missouri, was the first president of the Wisconsin Anti-Tuberculosis Association, serving until he left the state in 1914. Incidentally, Wisconsin has reason to remember with pride that Dr. Ravenel was one of the group of men, mostly doctors, who met together in Atlantic City in 1904 and organized the National Tuberculosis Association. He was a member of its first board of directors and later its president.

Dr. Edward Livingston Trudeau of Saranac Lake, father of the tuberculosis sanatorium movement in America, was the first president of the national association.

Trudeau, the "beloved physician;" the one man to whom, more than to any other except Pasteur, this nation stands indebted for what it has been able to accomplish in the conquest of tuberculosis; Trudeau, whose autobiography furnishes page after page of reading more fascinating than fiction; Trudeau, who established in a little room heated by a wood stove the first tuberculosis laboratory in the United States and who, with a handmade thermostat heated by a kerosene lamp, was the first man in this country to succeed in growing the tubercle bacillus following its discovery by Dr. Koch. Trudeau started this country's first sanatorium in a little one room shack with two young factory girls from New York as his first patients. It was Dr. Trudeau who went into the Adirondacks to die and who for forty-three years kept at bay the foe that he could never completely conquer for himself but which he, and



Dr. Edward L. Trudeau, "the beloved physician," founder of the tuberculosis sanatorium movement in America.

those who have learned of him, have helped countless thousands of others to vanquish. It was Dr. Trudeau who made personal misfortune the stepping stone to fame and service and whose work will continue to live through all the coming generations.

"As I look back on my life," he wrote shortly

before his death, 'ever since that day in 1866 when my brother came to me sick at Newport, tuberculosis looms up as an ever present and relentless foe. It robbed me of my dear ones and brought me the first two great sorrows of my life; it shattered my health when I was young and strong and relegated me to a remote region, where ever since I have witnessed its withering blight laid upon those about me and stood at the death-beds of many of its victims whom I had learned to love. Of late it has condemned me to years of chronic invalidism, helplessness and physical misery and suffering. And yet the struggle with tuberculosis has brought me experiences and left me recollections which I never could have known otherwise and which I would not exchange for the wealth of the Indies."

Something of the same spirit is reflected in the memorable words with which Dr. Trudeau greeted the International Congress on Tuberculosis in Washington, D. C., in September of 1908. Speaking of the achievements in tuberculosis work from the time when he started his professional career up to that date, he said:

"For thirty-five years I have lived in the midst of a perpetual epidemic, struggling with tuberculosis both within and without the walls, and no one can appreciate better than I do the great meaning of such a meeting. I have lived through many of the long and dark years of ignorance, hopelessness, and apathy, when tuberculosis levied its pitiless toll on human life unheeded and unhindered; when, as Jaccoud has tersely put it, 'The treatment of tuberculosis was but a meditation on death.' But I have lived also to see the dawn of the new knowledge, to see the fall of the death rate of tuberculosis, to see hundreds who have been rescued, to see whole communities growing up of men and women whose lives have been saved, and who are engaged in saving the lives of others. I have lived to see the spread of the new light from nation to nation until it has encircled the globe and finds expression today in the gathering of the International Congress of Tuberculosis, with all that it means to science, philanthropy, and the brotherhood of man."

Inevitably any mention of this International Congress must recall to the memories of Wisconsin pioneers in the anti-tuberculosis fight the part which it played in crystallizing the sentiment that the crusading doctors of that day were arousing in various parts of the state. The Wisconsin Anti-



The "Little Red Cottage" at Saranac Lake, New York, established by Dr. Trudeau. This was the forerunner of our modern tuberculosis sanatoriums.

Tuberculosis Association was organized in fulfillment of a promise made during a campaign for funds with which to send Wisconsin's first tuberculosis exhibit to Washington. The plan for raising the fund was unique. Its authors were two medical men, Dr. Ravenel and Dr. C. A. Harper. They devised the plan of asking Wisconsin cities for a self-imposed municipal tax. This plan was highly indorsed by a committee of over one hundred of the leading citizens of Wisconsin, organized to assist the state's International Congress committee, and in asking for the tax the committee pledged itself to establish a permanent state organization for carrying on an aggressive fight against the disease. The Wisconsin Association was one of the twenty-two state associations organized in 1907 and 1908 as a direct result of interest aroused by the International Congress.

It is not alone in the field of tuberculosis that we are indebted to the doctors for leadership. Look through the files of our newspapers of eighteen or twenty years ago. Long before there was any medical inspection in the schools, doctors were telling of the need of it. It was doctors who took the lead in the movements that gave Milwaukee its first child welfare and tuberculosis nurses, who inspired the establishment of dispensaries and

FROM THE TRIBUTE OF
STEVENSON

"There are men and classes of men that stand above the common herd: the soldier, the sailor, and the shepherd not unfrequently; the artist rarely; rarelier still, the clergyman; the physician almost as a rule. He is the flower (such as it is) of our civilization; and when that stage of man is done with, and only remembered to be marveled at in history, he will be thought to have shared as little as any in the defects of the period, and most notably exhibited the virtues of the race. Generosity he has, such as is possible to those who practice an art, never to those who drive a trade; discretion, tested by a hundred secrets; tact, tried in a thousand embarrassments; and what are more important, Heracleian cheerfulness and courage. So it is that he brings air and cheer into the sick-room, and often enough, though not so often as he wishes, brings healing."

clinics. It was the State Medical Society that introduced the bill that established the first State Board of Health.

The old time family doctor was, in fact, our first social worker. The new time one is still a social worker, but he is not forced to work alone as his ancestors were. There are other hands to which he can turn over much of the detail, but the task of scientific guidance he must and does retain. And it is well that this is so. The task could not be in worthier hands, for there is no other profession, not excepting the clergy, which comes so near to exemplifying the spirit of service. *The true physician is called, not made.*

What other profession is there in which the members give so generously of time and skill? In what other field will you see men, as a matter of course, make a free gift to the public of the results of months and even years of painstaking and scientific research? Does a physician ever think of patenting a discovery that he has made, of keeping secret a method of treatment that has proven suc-

cessful? If he did, how long would he retain his standing in the profession?

American school children know well the names of the inventors of the telephone and telegraph, of the steamship and aeroplane, of the phonograph and printing press. How many of them can tell what debt it is that humanity owes to Laennec, to Agramonte, to Carroll, to Walter Reed, to Jenner, and to Lister? How many of them know that there is a far greater reason than his delightful "Autocrat of the Breakfast Table" for honoring the name and memory of Dr. Oliver Wendell Holmes?

Through its monthly publication, The Crusader, and through its school talks and teaching helps, the Wisconsin Anti-Tuberculosis Association is helping to familiarize the boys and girls of Wisconsin with some of these names, attempting to make them realize what they personally owe and what the community in which they live owes to the "heroes of medicine." It is not too much to hope that as a result of this and of similar efforts, the text books of the future will give at least as much space to the conquerors of smallpox and tuberculosis as they do to the inventor of the cotton gin. And when that day shall come, I am hoping that there will be no class in English, in this or in other states, who will not know the tribute that Robert Louis Stevenson, whose brilliant life was cut short by tuberculosis, paid to the medical men in his preface to the group of poems medical men in his preface to the group of poems, "Underwoods." This tribute was written in England during the summer before Stevenson returned to America intending to try the climate of Colorado and going instead to Saranac Lake. This fact unquestionably explains why there is no mention of Dr. Trudeau and his associates at Saranac among the list to whom the poet acknowledges special indebtedness. To me, there is no finer tribute in the English language, no words in which I can better express my own personal feelings, than this dedication which begins:

"There are men and classes of men that stand above the common herd: the soldier, the sailor, and the shepherd not unfrequently; the artist rarely; rarelier still, the clergyman; the physician almost as a rule."



Health Hazards In Small Cities and Villages Can Be Decreased By Community Pride*

BY A. V. deNEVEU, M. D.,
DEPUTY STATE HEALTH OFFICER,
RHINELANDER

Health hazards in small cities and villages is a vital problem, and I believe there is not a health officer or health worker but has at some time had cause to know some of the difficulties met in this type of health work. The New York Health Department says that "public health is purchasable," and Pasteur, one of the greatest bacteriologists, has said that it is within the power of men to banish from the earth all parasitic and infectious diseases.

In making comparison between present day hazards in the state of Wisconsin and the hazards 80 to 100 years ago, let us have a mental picture of the different conditions under which the people were living in 1840 and 1924. I take from the diary of one of Wisconsin's early settlers these statements in relation to the period about the year 1840 near Fond du Lac, Wisconsin: "There were four log houses, no town, no mills, schools, roads nor blacksmiths. The calm sublimity of nature was everywhere in evidence, save perhaps by a few deer roaming over the prairie, surfeited with food and fat, or by a stalwart Indian who was like the Yankee Doodle of old riding on his pony with a feather stuck in his hair, but who, however, was not going to town."

Today this same country has its landscapes dotted with farms and villages, creameries, cheese factories, mills, schools, where thousands of girls and boys are learning to be Americans with clean strong bodies and minds. There is also mile on mile of concrete roads carrying hundreds of thousands of tourists into rural districts; miles and miles of railroad carrying its quota, and all of this within a few hours ride of a dozen cities where live thousands of people who frequent the rural districts in greater numbers than ever before.

INCREASED HAZARDS TODAY

In the year 1840 a health officer would not have been practicable in a country surrounding Fond du Lac. Today it would be criminal negligence were there not a full quota of efficient health

*Read before the Wisconsin Conference of Health Officers, Madison, Wis., Sept. 25, 1924.



Wisconsin's First Capitol Where Health Laws Received Little Attention.

officers in the same territory. In this comparison you can see one of the principal reasons for the great increase in health hazards in a rural community—increased population. And with the increase of population there is brought increased danger of disease, first, by increased liability of contact with disease; second, by increased danger of polluted water in springs and streams, and third, by a greater amount of sewage, waste and garbage to dispose of properly.

These hazards we meet also in the city and possibly to a greater degree. We may ask then, "Why have we a lesser health hazard in the larger city than we have in the supposedly more healthy rural communities?"

BETTER ORGANIZATION IN CITIES

In the first place, we have in the city a better developed and better paid government, including judicial, educational, police and health departments. The paid departments in the cities have, as a part of their duty, the care of the indigent, control or punishment of the criminal, and a carefully kept record of and for the control of com-

municable disease. The city health department includes a trained health officer, nurses and other assistants and a police department to assist in maintaining quarantine or in reporting insanitary conditions. In many of the larger cities there are laboratories with technicians. There are also state laboratories where water is regularly tested. The sewage system and garbage disposal are supervised by a special commission under the control of the health department, and the streets are paved with brick, asphalt or concrete, and are regularly cleaned to insure the least danger from dust and dirt. The paid health officers, assistants, and nurses regularly inspect the children in the schools and everything possible is done to remedy any outstanding physical defect, and with the help of the school teachers any communicable disease is promptly reported. Where contagious disease is found in a school a daily inspection is made in order that pupils who may have contracted the disease may be excluded from school with the first symptom. Many cities have, also, free health clinics and dispensaries where the indigent may be given proper care. In the city we have the larger factories, larger commercial activities, larger and more valuable properties, a concentration of wealth and thereby a greater amount of taxable property and taxable income.

Let us, on the other hand, look to the small city or village. It is needless to say that many of us believe, and with just cause, that we have quite a fair amount of tax without further burden. But it is also just and fair to say that in the larger cities those having the larger properties and interests also have a large tax to pay to keep up a properly sustained health program and enjoy the benefits of better health conditions and the consequent contentment and happiness which are inseparable.

MORE DIFFICULT PROBLEMS IN COUNTRY

We find the difficulties in health problems in the thinly settled rural districts are increased, and generally speaking, they have a more difficult problem in controlling contagious diseases and keeping proper sanitary conditions than in the small cities or villages. I have in mind several cases of infectious disease which were contracted and brought into a poorly supervised rural district, there to grow and bloom unmolested, and thanks to the easy modes of travel were carried and planted in a small community where considerable

effort was being exerted to keep it free from contagion. And with what are these small villages and cities equipped to combat contagious or infectious disease?

In some instances, the village is fortunate enough to have a physician who has time to devote to the health of his community. In many instances, however, even where there is a physician who is capable and willing, we find he has not the time, with his necessarily large rural practice, to devote to public health work in a manner that is necessary to insure a proper standard of health in his community. He has not the time nor can he afford, with the ridiculously small compensation that is paid by small cities and villages, to devote much time to this work even though his heart may ache to see his fondest ambitions crumpled like a house of cards. We then have the village of from 100 to 600 inhabitants which may not have even a physician, and there are such villages scattered throughout the state, especially in the northern part of the state. This is not only a great hardship to the inhabitants when sickness casts its pall over the community, but a calamity if it is of a contagious or infectious nature.

RURAL COMMUNITIES SUFFER

Physicians in many instances being from 10 to 25 miles distant, and the average villager having little enough of life's riches, feels that he cannot afford to call a physician when John or Mary have a little sort throat or a little headache. If it happens at strawberry time or apple time or in hot weather that they have overeaten or have a little heat rash or strawberry rash unless the parents are observing, intelligent, conscientious citizens, we may have the beginning of a severe contagion, that, like the notorious chancer worm, eats its way into the little schoolhouse, there to take its toll. The local layman health officer may or may not be able to make a diagnosis, but, nevertheless, he has no legal right to make this diagnosis, as only licensed physicians have this privilege under the ruling of the state. Then comes the necessity of sending for a physician at the town or village expense to make this diagnosis.

In the city, as I have stated, there are numbers of competent nurses to examine the children if necessary, and dentists and doctors to examine teeth, throat and eyes. In the rural districts there may be one or two public health nurses in the county, and with all their effort and with all

the grief from bad weather and poor roads they cannot cover their territory in a manner to compare with the work done by the school nurse or city nurse. It is a physical impossibility. There are also in the large cities societies and health organizations who work along health lines, and this assistance, in many instances, is lacking in the smaller communities. There is an exception to these conditions in the village called a "company town," owned and controlled by a company or corporation where live their employes, and then only when the owners have the largeness of heart and fullness of understanding to realize the necessity of good health among its workers, and to place an able physician at the head of the department who is competent to supervise the work.

DANGER FROM WATER SUPPLY

In the small city or village, in many instances, we have an unsatisfactory water supply. The water is taken promiscuously from wells, springs, rivers and lakes, without proper analysis, filtration or sterilization. The sewage system of these communities is often bad. Where there is a sewage system it generally flows into a stream without any thought of septic tank or other means of purification. There are also innumerable closets, privy vaults and cesspools, barnyards and manure piles, where the rains flush the surface and possibly wash this material into a nearby water supply, to say nothing of the millions of flies who do their part in carrying disease. It is necessary that we understand that there are different health problems in various districts of the state partly because of differences of climate and weather conditions and partly because of educational facilities and nationality.

In a community of foreign supremacy or where the necessity of health supervision is not regarded as essential, either because of lack of education along these lines or in a spirit of indifference, we sometimes find it difficult to receive the full cooperation of those in authority. More difficult thereby is the work for the local health officer, where he finds opposition to his efforts to enforce the health laws and regulations and at the same time remain on friendly terms with his neighbors. It is in a community of this type (and I am glad there are not many of them) that the part-time health officer, even though he be a physician and is qualified to do his duty may find it difficult to abide by the quarantine regulations and observe, and make others observe, the health laws without

encountering some real or imaginary hindrances which may be detrimental to his practice and livelihood. On the other hand the full-time health officer is not only independent as to his income but he has more time and opportunity to fit himself better as a public servant, and therefore can give better services than a part-time health officer.

MILK SUPPLY IMPORTANT

There is still another subject that should receive our attention and that is the milk supply. In most of our larger cities we have ordinances that govern and make safe this supply, while in the smaller cities or villages it is not the rule to find an ordinance that assures its citizens of the necessary pure milk. I wish to make it clear that all of these conditions do not apply to all small communities, but as a general rule they do represent the conditions found.

MORE GENERAL REALIZATION OF NEEDS NECESSARY

We have mentioned some of the outstanding handicaps of the smaller communities in the campaign for health, the campaign for the prevention of disease. Now what can be done?

1. If your community has no licensed physician but has a territory sufficiently large so that a physician could make a living, by all means secure a competent and trained physician. The State Medical Society of Wisconsin, 558 Jefferson Street, Milwaukee, will be glad to help you to this end. And when you have a physician do not just use him for night calls and in the winter but give him your work in the summer as well.

2. There is no community that has not its clubs, societies and associations. Give consideration to your health problems in your meetings. Ask your doctor to talk on that subject and then have some live discussions. Where community health is a "dead subject" the death rate is high.

3. Pay your part-time health officer what his services are really worth and then demand results. There is no "economy" more costly in the end than a pinch-pocket policy for community health.

4. And last, remember that you can do much and go far without paying a cent. Cultivate a spirit of pride in your community that will not permit of privies near pumps, that will not permit a cup for all on the town pump, dirt near restaurants or hotels, or an unclean milk supply. This you can do for yourselves and just as it is done so will your community pride increase and your community sick and death rate go down.

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EDITORIALS

AFTER VOTING—WHAT?

“WELL, that’s over!” declared Jim as we left the voting booths last fall. “I voted for Tom for Assemblyman. He will get it all right.

“Good fellow,” Jim continued.

I said nothing and then Jim musingly added after a moment, “But I suppose he will be like all the rest—do just as he pleases when he gets there.”

Mighty few legislators or public officials do just as they personally like, I told Jim, and when they do, it simply means that lacking representative opinion from their constituents they must fall back on their own best judgment.

I did not mean to say that our public officials are the “ear-to-the-ground, I’ll-vote-the-way-I-can-get-the-most-votes-for-re-election” type. They are not that for these men are giving of their time, usually at no small financial sacrifice, to represent you and me and all of us. No platform was ever framed that covered all the measures and questions upon which public officials must pass their judgment. And when these questions come up that may vitally effect you and me, you can just be sure that our representatives are mighty glad to hear from us.

They don’t want a last minute organization inspired and paid for telegram “Please vote against Bill No. 788 A,” or “I favor Bill No. 991 S without amendments.”

A last minute telegram like those may be better than nothing at all—but not much better. What is appreciated is just an informal letter telling *why* you favor or do not favor a pending piece of legislation. That type of a communication is *appreciated* and you will find that your representative will take the time to write you and tell you so.

During a session of the Wisconsin legislature, for example, there may be 1,500 bills introduced. They will deal with subjects from the proper weight for a five cent loaf of bread to income taxes; from medical practice acts to the width of runners for the farmer’s sleigh; from testing cattle for tuberculosis to “blue sky” laws, and from creating state parks to open seasons for fishing and hunting. No member of the legislature nor any public official can be thoroughly familiar with every bill upon which he must pass his opinion. He must rely upon reports of special committees but he would prefer to rely upon the considerate judgment of the people he represents; the judgment of men and women he knows personally.

We have just seen a nation-wide advertising campaign to tell all of us that a good citizen is one who votes on election day. Now we have voted but if we let it rest there with a “Well, that’s over” spirit we will fall far short of being good citizens.

The time to analyze legislation critically is be-

fore it is enacted, whether it pertains to health, taxation, or "filled milk." And when you have formulated your opinions do not be content to broadcast them for the benefit of your friends. Use the "directive" method so that your representative can tune in on his district and receive real helpful messages and not just static.

THE SECOND ANNUAL LAY ISSUE

IN April, 1924, the members of the State Medical Society of Wisconsin presented the first Lay Issue of their Wisconsin Medical Journal to the interested citizens of the state. Because the recipients of that Journal thought it was worth while; because they thought it of value, this Second Annual Lay Issue is published.

Every effort has been made to the end that the articles contained in this issue shall be as accurate as to facts and shall reflect the group opinion of the close to 2,000 members of the State Medical Society. No one person has made this issue possible. It has been made possible only by the public-spirited, unselfish support of every contributor and every member.

We present this issue to our readers outside the medical profession with the hope that the information contained will be of value to them in their individual lives, but more, as representative citizens of a great state—Wisconsin. The Editorial Board, acting for the members, will appreciate your comments on this number in order that they may learn to make the issues of each future year of greater value. Please address all communications to the Wisconsin Medical Journal, 558 Jefferson Street, Milwaukee.

WINTER VACATIONS

WE have become so accustomed to taking our vacations in the summer that most of us have come to regard the warm days as essential for a pleasant vacation. And when a friend does speak of a rest in the winter he usually winds up by mentioning "The Gulf Coast" or "California" and we who stay at home are frankly envious.

Many are overlooking the fact that Wisconsin offers an almost unequalled opportunity for the enjoyment of a real winter vacation. It costs but little to spend a few days in our north woods and they hold a real treat in store for all of us.

Dress for the weather and then tramp through

the woods reading the story of wild life as revealed on a canvas of snow. Here is the rabbit run; there the timid field mouse ventured out; a partridge spread his tail in the snow here as he was "flushed." A fox walked across our trail last night and a little farther on we see where a deer passed by nibbling at twigs and buds as he slowly shuffled through the snow.

For those who care to read, the snow reveals a story of life itself. And the tramp through the north woods will take you into an atmosphere fragrant with the perfume of the spruce, pines and balsam; an atmosphere with a tang that inspires action; an atmosphere of quiet that relaxes taut nerves.

There is skiing, skating and snow-shoeing and no mosquitoes, no gnats, no wood ticks, no flies and—no dust. Take the gun and match your skill with Nature—try to see the nearly white rabbit against the pure white snow. Let the fisherman try his lines through the ice and he will find winter fishing, too, takes skill.

In the evening sit around the fireplace, watch the flames and tell your stories. Then about nine see how your party will melt away to seek warm beds.

If vacations are beneficial to our health and progress, as they are, they should not be confined to the good old summer time. The winter offers attractions all its own and nowhere are they more enticing as in our own Wisconsin.

VITAL TO PUBLIC PROTECTION

WHAT are the rights of a state in regulating medical practice? As outlined by a Chicago attorney before the Congress of Medical Education and Licensure, these rights are: Enactment of regulations making it impossible for any person to receive a license until he has demonstrated ample knowledge of the phase of healing in which he is working; ability to discover the nature of diseases he seeks to cure; a scientific knowledge of methods of treatment; training which fits him to apply intelligent effort toward prevention of the spread of the disease.

"That is a conservative statement and one to which, as we see it, no member of any of the healing branches outside the recognized medical schools could object. In fact, such a basis for licensure would be to the distinct advantage of

the so-called substandard methods of healing. It would weed out the incompetent members of these schools, raise the whole standard of these newer methods and put them on the same basis as the older forms of doctoring.

"There is in this procedure no attempt by the state to dictate what kind of healing its citizens shall choose. It is merely a plan to determine that whoever offers himself as a physician in the treatment of human ailments shall be fit and skilled in his branch. There is nothing unreasonable in this demand.

"The fake medical school and the fake diploma

mill can safely be left to those who act under the police powers of the state, provided honest physicians are ready and willing to give these officials every bit of information indicating fraud that comes to them. Too often the well meaning doctor in his busy rounds forgets to do this. But this other thing, the raising of standards, is going to require a long, hard pull, and the overcoming of many prejudices and misleading arguments, before it can be realized. Yet the establishment of such standards is vital to public protection."

Milwaukee Journal, 1924.

The Heart in Health and Disease

"If the sum total of the increase in our knowledge of the heart, in health and disease, of the past twenty years had come in a day and could be told to the world in a few words, it would rank among the greatest discoveries of modern medicine."

BY J. A. E. EYSTER, M. D.,

PROFESSOR OF PHYSIOLOGY, UNIVERSITY OF WISCONSIN;

ASSOCIATE PHYSICIAN, STATE OF

WISCONSIN GENERAL HOSPITAL.

"Tuberculosis has been pushed from its place as arch-executioner. In its place, in most parts of the country, is heart disease, now the chief cause of death in these United States. Fortunately heart disease is often curable. It is preventable. But the effort to cope with it must run the gamut of the seven ages—from childhood when it is to be prevented, through the middle years when it may be arrested and cured, to old age when its disabilities may be alleviated. We are on the threshold of an onslaught upon it which promises rewards as rich and startling as those of which the tuberculosis campaigners dreamed daringly twenty years ago."—The Survey.

The sole function of the heart is to pump blood at a certain velocity and pressure through the system of blood vessels. The blood vessels form a closed system, leading away from the heart through the larger arteries, continuing through the small blood vessels in the muscles, skin and internal organs and returning to the heart through the veins. In its action the heart corresponds exactly to that of a force pump, propelling the fluid blood by means of altering the internal capacity of its chambers and maintaining a flow

in one direction by the presence of "one way" valves.

From the mechanical standpoint the heart is really two force pumps, placed side by side, but incorporated in one organ and acting simultaneously. One pump forces blood through the muscles, skin, brain and internal organs of the abdomen and pelvis, the other forces blood through the lungs. Each of these systems is closed but the two communicate at the heart, so that the blood is forced first through one system and then through the other. As the heart lies in the body the pump on the right side forces the blood through the lungs. Here the blood receives oxygen from the air and gives off certain waste products. Returning to the heart from the lungs the blood passes into the left side and is pumped by this chamber to the rest of the body where it gives up its oxygen and takes up waste products. The blood also carries food materials absorbed from the intestines, which it gives up to the muscles and other organs, and receives from these, in turn, waste products which are thrown off from the body, mainly in the urine formed by the kidneys from the blood. In order for these exchanges of oxygen, food materials and waste products to occur at the proper rate demanded by health, a certain rate of flow or velocity of the blood is necessary. Ordinarily, in health and at rest, the blood requires about 25 seconds to complete the two circuits. The individual of average size has

about six quarts or about one and a half gallons of blood, and it is obvious that the heart, as a pump, must have the capacity to handle this amount in this period of time. In other words, each of the two chambers of the heart must pump over one gallon of blood in each minute in order to maintain an effective flow. It is known that during ordinary activity, as a result of increased demand of the body for oxygen and other substances, this demand is doubled, and according to some computations, in extreme activity it may be increased five fold or even more, the heart handling as much as five gallons per minute in each of its pumping chambers. One realizes from this the great variation in capacity required of this pump at different times and that our heart has a capacity comparable to the smaller force pumps used in domestic and industrial fields.

The ordinary method of varying the capacity of the pumping chamber in a metal pump is by means of a cylinder. The heart varies its internal capacity however by contraction of its muscles, which comprise over ninety per cent of the entire organ. These muscles do not differ greatly from the type of muscles that move our limbs or trunk, except in two important particulars, first that the contraction is not under the control of our will, and second that the contraction and relaxation occurs rhythmically throughout life. The average human heart contains at the end of its period of relaxation, at a time when the internal capacity of the pumping chamber is largest, approximately four ounces of blood in each of these chambers, of which it expels about two and a half ounces when the muscles contract. Each side of the heart or each pump has two valves, so arranged that they can open only in one direction. These act as inlet and outlet valves and as in the case of metal force pumps, allow the flow to occur in only one direction and confer upon the mechanism the property of a force pump.

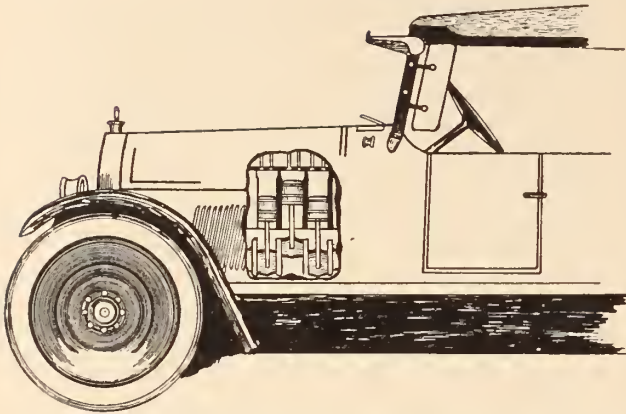
TWO CAUSES FOR IMPAIRED EFFICIENCY

One who has had experience with force pumps in general knows that two things may happen to decrease their efficiency. The stroke of the piston may not be sufficient to deliver enough fluid to meet the demand, or the valves may fail to close properly and a back leak develop. Applying this analogy to the heart we find that just two things may happen to decrease its effectiveness also; the heart muscle may become unable, as a result of

disease, to contract sufficiently to force out enough blood at each contraction, or the valve may suffer injury and no longer prevent back leakage. The condition of the heart muscle and the functional integrity of the heart valves constitute therefore the center of interest in diseases of the heart and the objective upon which the physician focuses his attention in the study of heart disease in an individual. Fortunately we have at the present time information derived from years of study and observation which enables us to determine (1) what conditions in the way of general disease are most likely to affect either the muscle or the valves, (2) whether the muscle or valves or both are affected and (3) within limits to protect the heart in its damaged condition, so that it can maintain its role as an efficient pump in spite of the damage, and to restore some of the efficiency that has been lost by the disease process.

Experience has shown that there are two great causes of chronic heart disease, first infection of the heart by bacteria or its injury by poisons resulting from bacterial growth in the body, and second poor nutrition of the heart muscle resulting from disease of the arteries supplying this muscle. The first factor is the cause of the great majority of cases of heart disease in the first three or four decades of life. The usual microorganisms responsible form several fairly well defined groups. The most important are those associated with certain types of tonsillitis, acute rheumatic fever (inflammatory rheumatism) and chorea (St. Vitus dance) and to a less extent those of other infectious diseases (influenza, scarlet fever, diphtheria).

In the majority of cases the damage results from an infection of one of the two valves of the left side of the heart. The bacteria during the course of the acute disease make their way into the blood stream and are carried to the heart. The valve appears to be an especially favorable region for the further development of this type of bacteria and they lodge there and form colonies of growth on the valve structures. The valves, like the rest of the heart of course is living tissue, and as a result of the invasion by bacteria small ulcers are formed. The ulceration is relatively slight and usually does not result in sufficient direct injury to the valve to reduce its normal function. The process is entirely painless and as a rule no symptoms are produced and the patient is totally unaware that this process is going on. The extent of ulceration



You can make replacements in this motor and yet you have it overhauled regularly; it is oiled properly; you do not ask it to make sudden bursts of speed; you use good gas so it will not become carbonized, and no poor mechanic tinkers with the adjustment of the carburetor.

is limited by the reparative and defensive forces of the body and after a time the tissue begins to heal. With the healing process fibrous or scar tissue is formed to take the place of the valve tissue that has been destroyed and in the course of time this scar contracts just as a scar on the skin surface contracts. This process of ulceration and repair is characteristic of similar processes that may occur in any of the tissues of the body. The destruction of normal valve tissue and its replacement by more rigid and contracted scar tissue results in deformity of the valve. The separate delicate leaflets of the valve may become matted together or the edges may be curled, stiffened or retracted. These changes inevitably lead to a disturbance of the normal function of the valve and produce a constriction of the valve orifice, or a failure of the valve to close the opening completely, or both of these may be the result. The valve becomes incompetent, either to pass the usual amount of blood in the usual time, or in preventing back leakage when the pump is in action. Since the welfare of all the body depends upon the maintenance of a certain blood flow, the heart must maintain this blood flow in spite of the damage to the valve. It does this in the only way that any pump similarly damaged can be made to meet this situation, namely by *increased stroke*, or *increased rate*.

ENLARGEMENT OR HYPERTROPHY

Increased stroke means greater contraction of the muscle at each beat, and increased rate means more frequent contractions of the muscle with shorter periods of rest between contractions. Both lead to increased work of the muscle. As a result

of the increased work of the muscle, enlargement or hypertrophy results, similar to that which occurs in systematic exercise of the limb muscles. So long as the heart muscle is able to maintain a normal output from the pump in spite of the damaged valve, a normal circulation is maintained, although it is obvious that a part of the original reserve power of the muscle is being utilized for this purpose. The individual may be well and indeed be entirely unaware of the condition. If the individual's life is regulated within reasonable limits of activity and a subsequent reinfection with renewed damage is prevented, such compensation of a valve lesion may exist undisturbed for many years and the individual die in old age of some other condition. Reinfection, or physical strain exceeding the reduced reserve of the heart muscle may, however, lead to failure of the heart to pump the amount of blood demanded by the various organs of the body, and many symptoms arise from partial failure of the circulation. The heart disease changes from chronic to acute and the patient becomes acutely ill and we then speak of the condition of the circulation as decompensated. With rest and medical treatment the muscle may regain its ability to handle the situation, a normal blood flow is reinstated and all symptoms of illness disappear. It is then said that compensation is re-established.

HARDENING OF THE ARTERIES

The second great group of cases of chronic heart disease is most prevalent in the latter decades of life and differs in its cause, derangement and progress from the group already considered. The great cause of chronic disability in later life is degeneration of the arteries, the so-called arterial hardening or arteriosclerosis. The late Sir William Osler, responsible for many truisms in medicine, made none more widely quoted than "a man is as old as his arteries." The process of arterial degeneration limits the carrying capacity of the smaller vessels and results in deficient supply of blood to the tissues. Certain regions of the body are more susceptible to this reduced blood supply than others and dominate the situation so far as the occurrence of symptoms and disability. The three regions most likely to suffer are the brain, the kidneys and the heart. Mental deterioration, Bright's disease and chronic heart disease, separate or combined, are thus the usual result. The heart disease in this case is not pri-

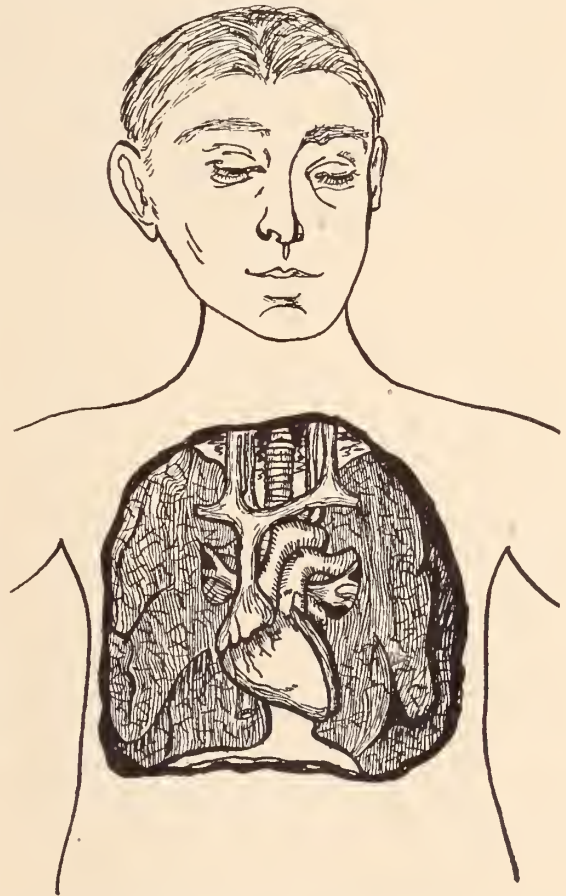
marily a disease of the valve but of the muscle, resulting from lack of blood flow through the arteries of the heart muscle, a lack of proper oxygen and food supply and a removal of waste products, and a consequent degeneration of some of the muscle elements. Enlargement of the more hardy and uninjured elements of the muscle may compensate for degeneration of others, and the muscle itself may enlarge and for a variable time maintain its normal function and manifest its usual reserve to meet unusual demands. Failure to meet the demand results in general circulatory deficiency as in the group previously considered.

While arterial degeneration seems to be an inevitable consequence of life, and the best of arteries most carefully protected will not last forever, we know many factors that tend to hasten this process, some of which can be avoided or reduced. Certain diseases, of which syphilis heads the list, tend to produce early degeneration. Excess of certain types of food, particularly the proteins, mental and physical overstrain, alcohol and certain poisons such as lead have been definitely associated with an acceleration of this process. Localized infections in the teeth, tonsils and other regions produce poisons especially detrimental to the arteries. Many of these conditions tending to cause damage to the arteries can be reduced or entirely removed and a process once discovered retarded or even arrested.

DISCOVERIES OF MODERN MEDICINE

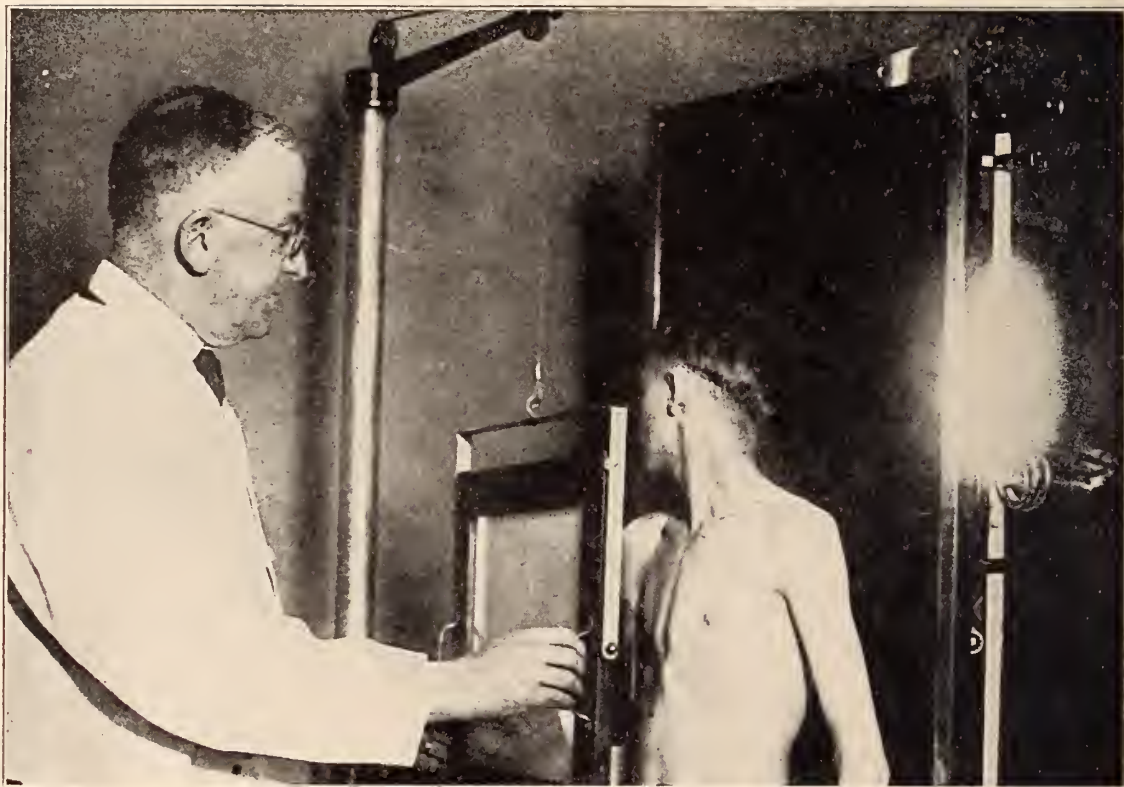
Modern medicine is meeting the menace of chronic heart disease in two ways, lowering the incidence of its development and in controlling its progress when present. Reducing the incidence of the disease is dependent upon the control of those conditions which give it birth, namely the acute infectious diseases and the factors leading to early arterial degeneration. Recognition of the fact that relatively simple infections may lead to serious heart disease and particularly the relation of the tonsils and teeth to these infections, has been of great importance. The earlier recognition and effective treatment of syphilis and the protection of workers and others from poisons used in the industries are means toward the same goal. Unfortunately the stress and strain of modern civilization has done much to neutralize the otherwise improved hygienic conditions, and arterial degeneration is still the end of us all who avoid the accidents of life and reach a mature old age.

Perhaps less striking, but even more effective at present, is the control and limitation of the process when present. The most important generalization that has come from modern experience in the control of chronic disease of various types, is that the effectiveness of this control is in inverse proportion to the stage of development of disease, that is the earlier the stage of the disease the greater the chance of treatment reducing or arresting its progress. Earlier determination of a disease process depends upon two factors, increased ability of the physician to recognize disease in its early stages, and the appreciation on the part of the public that it is better to be kept in health than to wait until serious symptoms or physical disability develop. Life insurance and similar examina-



And here is the human motor pumping night and day. You cannot make replacements in this motor. Does it not deserve even more attention than the motor in your car?

tions disclose many cases of early chronic disease and are frequently the first intimation to the individual that something is wrong. Much can be done in those cases of chronic heart disease recognized early. It should be clearly recognized that



Using the X-ray to Determine Lung and Heart Conditions.

human effort has not advanced to the point where new valves can be placed in a heart nor can a new heart muscle or a new system of blood vessels be supplied. The structural damage to the valve and to the muscle is permanent, and the patient must live and finally die with it if not of it. Serious valve injury usually comes, however, from repeated infection with ulceration, and if this is prevented, as it can be in the majority of instances, the patient usually dies with and not of the damaged valve. The question of survival of a patient with chronic heart disease of either a valvular or primary muscle damage is the question of the ability of the heart muscle to compensate for this damage as I have described, and much can be done in early cases to safeguard this muscle so that it can serve the individual through a long and useful life.

EARLY RECOGNITION NOW POSSIBLE

The recognition of early heart disease has been a difficult problem and a problem much clarified by relatively recent progress in medicine. The world is astonished every so often by the announcement of a spectacular discovery in medical science. The X-ray, radium, anaesthesia and insulin are examples. At the same time accumulative knowledge leading to a better understanding in general

of the body in health and disease is coming gradually but none the less surely and effectively and is of as great or even greater importance in man's conquest of disease than the sudden spectacular discovery. If the sum total of the increase in our knowledge of the heart in health and disease of the past twenty years had come in a day and could be told to the world in a few words it would rank among the greatest discoveries of modern medicine. There is no other single organ in the body in regard to which we know as much as to the details of its normal function and its disturbances as a result of disease. Heart disease comprises a large proportion of total chronic disease. Much unnecessary suffering and shortening of the period of active life result from its neglect. The situation is also complicated by the fact that many people are led by one reason or another to think they have heart disease when their hearts are perfectly normal. Every practicing physician knows of instances of weeks or years of invalidism induced by this fear. The fear of tuberculosis and cancer is alone comparable. It is the function of the physician to remove this fear in such cases as it is to safeguard those where organic disease is present.

Simple Goiter—A Preventable Disease; Remedy Now Available to All Wisconsin

BY C. A. HARPER, M. D.,
STATE HEALTH OFFICER.

For many a year the cause of goiter has been the subject of extensive research by medical men. There has been much theory and speculation upon it in times past, and the governments of France, Switzerland and Austria have tried, by various means, to prevent, if possible, the pronounced goitrous conditions occurring in or near some of the Alpine valleys. The infirmities growing out of these aggravated forms of goiter have been sufficient to call for governmental action. Although there has been a near approach to a practical solution for three-quarters of a century, the actual solution has never definitely matured until recently.

To be specific as to just what a goiter is, we may say it is an enlargement of the thyroid gland; a gland that lies in the lower and forepart of the neck just below the Adam's apple. In its normal condition it is not noticeable, so that few people would know there is a gland there; but when for any reason it becomes enlarged its close proximity to the surface makes the enlargement evident by an outward curvature of the parts.

Goiters vary in size from a barely noticeable convexity to a ponderous swelling in the forepart of the neck. They are not of one causation; but a variety of reasons may play a part in their development. For instance, infectious processes, as decayed teeth roots or suppurative tonsils, may give rise to enlargements of the gland. An over-acting thyroid may lead to the so-called exophthalmic or toxic goiter in which the nervous system becomes involved, and there are a number of other thyroid troubles, the cause for which only a painstaking physician can determine.

The rank and file of all goiters, however, is the form known as simple goiter. Practically all of the goiters that occur in school children, especially girls of high school age, are simple goiters. Residents of Wisconsin are more or less familiar with the prevalence of that condition in this state. There are places in Wisconsin where 90 per cent of the children show outward convexity of varying degrees in the lower part of the throat, and there are places where very few cases are found. Intermingled in the population are to be found marked goiters in some adults. Some physicians like to



Examining a Simple Goiter.

speak of these small and not very evident goiters as "thyroid enlargements," as a gentler term having less of scare than the word "goiter," but by whatever term you speak of simple goiters they are all, large and small, due to the same causation. The same prevalence is true in Michigan and, perhaps, less markedly in other states bordering on or close to the Great Lakes.

The thyroid gland is termed by physicians a ductless gland. It pours out no secretion into another part of the body through a duct, as many other glands do. Its secretion is absorbed into the blood. A study of it has, therefore, been hedged by inaccessibility and its true function has remained undiscovered until the present day. We now know the thyroid gland to be the reservoir of iodine in the human system. A chemical analysis shows it to contain about three-quarters of a grain of iodine. Small as that seems, there is no other tissue or organ in the body which contains anywhere near that amount. When, for any reason, a deficiency of iodine occurs in the thyroid gland, the gland begins to increase in size. At certain times of life, such as occurs in the growth of children, particularly in girls at adolescence, and also in the pregnancy of women and during lactation and the menopause, there is increased call for iodine, and the lack of it gives rise to simple goiter.

IODINE IN NATURE

Primarily the human system receives its store of iodine from the food consumed and from drinking water. The geological formation of the earth's crust and the soil resulting from its disintegration contain iodine as an element. The water



Simple Goiter

draining over and through these geological formations and soils picks up some of the iodine and carries it away. In certain regions of the earth it is more plentiful than in others. The water of the ocean contains it in comparative abundance, and the coastal belts, subject to former submersion or wind-borne spray, contain a supernormal percentage. Human beings, animals and fish are subject to goiter, but the animals and fish of the ocean never have it.

In certain other regions there is a marked deficiency of iodine. Conspicuous among these in North America are the Great Lakes region and the northwest mountain states. In South America it occurs in some areas in the Andes, and in Europe in the Alpine mountain valleys and adjacent territory. It is present in the Himalaya mountain region of south-central Asia and in a number of other localities. The water from the melting snows of mountain tops is likely to be lacking in iodine. These various regions are known as goiter belts.

The vegetables and grains grown in the soil take up some of the constituents of that soil, and in the goiter belts there is a deficiency of iodine in these vegetables and grains and very often in the water. People so situated do not get enough iodine in what they eat or drink. The green vegetables, the skins and seeds of fruits, and in a roundabout way animal flesh, milk, butter and water contain more iodine than other products.

But even in a usual diet of these substances there may not be enough. Because of our present-day rapid transportation and the commercial use of refrigeration, the markets in our cities contain foodstuffs from the sub-tropical and goiter-free coastal belts. We may here recount a statement of the reputed effect of distant commercial food supplies. It is said that goiter was found to be prevalent in a certain region in Montana, but much less so in some of the towns in the same general area. Investigation showed that, owing to a short growing season, the town markets were supplied with vegetables from California, which the country people, for obvious reasons, did not have ready access to and were, accordingly, more subject to goitrous foods. But as a general proposition the population lives on the products of its own soil, and foods from a distance are incidental.

THE REMEDY

Having once discovered that simple goiter is a deficiency disease, the remedy seems clear; namely, the substitution of iodine in some other way to overcome the deficiency. In 1916, Drs. Marine and Kimball began an experiment at Akron, Ohio, to determine whether or not goiter can be prevented by such means. A careful examination of the thyroid of each girl from the fifth to the twelfth grade, inclusive, was made and recorded once each year. In the first examination 56 per cent of these girls were found to have enlarged thyroids. Most of these goiters, of course, were small. The method of prevention used in Akron was the administration of three grains of sodium iodide dissolved in the water—once each day for two weeks, each spring and fall. Nearly ten thousand girls were examined during the three years, and approximately one-half elected to take the treatment.

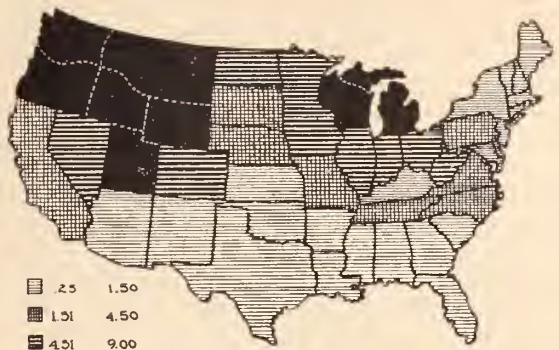
"Of those taking the prophylactic dose of iodine," Marine and Kimball reported, "not a single normal girl developed goiter, although two girls in very poor health did develop goiter. Among the girls not taking iodine as a preventive, 27.6 per cent developed goiter and in many of these the goiters became quite large. The goiters disappeared in over sixty per cent of the girls who had goiter at first and took the prophylactic iodine; while among those who had goiter at first, and did not take iodine, the enlargement disappeared in very few."

Since that time a chocolate-coated tablet con-

taining ten milligrams of iodine has come into common use. It is used once a week for forty weeks. The Goiter Commission of Switzerland has recommended this method of goiter prevention, and it has been used with marked success.

It is to be remembered that the preventive treatment is only for school children in goitrous areas who have no goiter but who may develop one, or for those children with beginning goiter. In the old established goiters of adults it is likely to have no beneficial effect, and this fact should be emphasized as many of them are prone to believe that the preventives recommended will help them.

In the pregnancy of women in goiter belts this small dosage of iodine should be used to prevent the somewhat common occurrence of children born with goiter, and it should also be used in lactation.



■	0.25	1.50
▨	1.51	4.50
▩	4.51	9.00
■	9.01	-26.91

RATIO PER 1000 MEN
TOTAL, CAMPS AND LOCAL
BOARDS.

SIMPLE GOITER.

PREVALENCE AMONG DRAFTED MEN
DEFECTS FOUND IN DRAFTED MEN
WAR DEPARTMENT 1920

to remedy simple goiter. As a matter of fact, the majority of old, chronic goiters so common in this region are the after-occurrence of the simple enlargements of youth. If the simple goiter has been prevented, the prevalence of adult goiter would be much less.

There is doubtless a nutritional disturbance in those with simple goiter which is not evident by symptoms. For example, there is a disease known as myxoedema, which is due to a total lack of thyroid substance in the adult. The victims have lower heat production and are cold to the touch. Their skin becomes thickened and boggy, and their mental and physical activities are under par. Myxoedema is remedied by thyroid gland medication. It is probable that some tendency towards this condition may be present in those with simple goiter; but it is not evident enough to be characterized by symptoms. At any rate, the child is better off without a goiter. We may point to the Alpine regions where aggravated forms are evident. For centuries goiters have afflicted them. Those grotesque and helpless dwarfs known as Cretins are found there and are the result of goiter in their infancy or in their predecessors. A tendency in that direction is better remedied than left alone.

Without question an effort to make up for the iodine deficiency in the general population where needed would result in a better human race. The means are at hand and the expense is less than a ticket to the theater.



Chronic Goiter

Iodine has been placed in community water supplies to overcome a deficiency. It reaches the whole population; but only a very small part of the water supply is used for drinking purposes and the process is relatively an expensive one. Common salt has also been used as a vehicle for iodine. At the present time, however, we lack statistics as to substantial results upon the success of the latter methods.

THE HARM OF GOITER

It may reasonably be asked if it is worth while

RAISE YOUR WINDOWS

Here lies the body of Jonathan Hupp;
He just wouldn't sleep with his windows up.

—Scranton Times.

Vital Statistics—The Pulse of the Nation

"Public health work without morbidity and mortality statistics is like ocean navigation without chart or compass."

BY L. W. HUTCHCROFT,

STATISTICIAN, STATE BOARD OF HEALTH.

Your every right as a citizen may depend upon your birth certificate. The future welfare of your family may depend upon accuracy in a death certificate. Physicians must differentiate between 205 separate and distinct causes of death. A mistake may endanger the health of a community. A mistake may deprive a family of insurance and compensation. Vital statistics is the pulse of the Nation, which must be read accurately if you are to be protected.—
The Editor.

It is of the greatest importance to a state and a nation that accurate records be kept of its births and deaths, of its gains by birth and immigration and of its losses by death and emigration.

A nation's true wealth lies not in its lands and water nor in its forests and mines; not in its flocks and herds, nor any other type of material wealth, but in its healthy and happy men, women and children. A well man is worth more to the state than a sick man; a man in the prime of life is of more immediate worth than an old man or a child.

It is of vital importance to the state to know the number of its people, their age, sex, conjugal condition, their parentage, their health, birth and death rates, their concentration in cities and other congested areas, their mode of housing, their occupation, their economic condition, their knowledge of sanitation—all these contribute to the sum total of their usefulness to themselves and to society.

The registration of vital statistics which existed only in name for a long period after the organization of the Board has for a number of years been operating on an efficient basis. Soon after the transfer of the registration work from the Secretary of State's office to the State Board of Health provision was made for the organization of a Bureau of Vital Statistics with sufficient trained workers accurately to collect, index and study the birth, death, marriage and divorce records so that they could be made of practical service in improving health conditions in the state. During the last decade there has been a nation-wide interest in the better registration of vital statistics and in the more intelligent use of these statistics in the pre-

vention and control of disease. We all should be proud of the rank which Wisconsin now holds among states of the Union in vital statistics registration. These records, particularly the birth, death and marriage records, are of value to the sanitarian, in the prevention of disease and the prolonging of life, and to the individual in safeguarding his civil and property rights. We cannot attain the maximum of disease or death prevention or of health or life conservation without complete registration of all births and deaths. Public health work without morbidity and mortality statistics is like ocean navigation without chart or compass. Agencies for the prevention of blindness cannot save the eyes of infants if infants come into the world unannounced and unrecorded. Child labor cannot be regulated if birth registration is incomplete and compulsory education can be only partially successful without these valuable records. The recording of births is very essential in all questions of heredity, legitimacy, property rights and identification. Records of deaths are indispensable in determining the death rate, detection of crime, proof of death and the determination of length of life.

The Vital Statistics Law requires that every birth, death and marriage be registered. Each city, each incorporated village, each township is a registration district. For the convenience of the people each registration district has a Local Registrar. In cities the Health Officer is Local Registrar, in incorporated villages the Village Clerk is Local Registrar and in townships the Town Clerk is Local Registrar.

HOW BIRTHS ARE REGISTERED

The doctor or midwife who attends a birth must file within five days a certificate of birth with the Local Registrar of the District in which the birth occurred. If there was no doctor or midwife in attendance, parents are required to file the certificate. Local Registrars furnish blank forms and make no charge for registering births.

HOW DEATHS ARE REGISTERED

The undertaker, or the person who has charge of the burial of a dead body, is required to file with

Form 100-6-16-24-1338.

PLACE OF BIRTH
 COUNTY of _____
 TOWNSHIP of _____
 VILLAGE of _____
 CITY of _____

STATE OF WISCONSIN
 Department of Health-Bureau of Vital Statistics
ORIGINAL BIRTH RECORD

Registered No. _____
 (Legal Vol. No. 1, 2 and NUMBER 200)

NAME OF CHILD
 Given Name _____
 Surname _____

Sex _____
 Was child deformed or physically defective? Yes or No _____
 Nature of defect: _____

Year of Birth _____
 Month _____
 Day _____

Parents: Name _____
 Date of Birth _____
 Legitimacy _____
 Number in Birth Order _____

Other: Name _____
 Date of Birth _____
 Legitimacy _____
 Number in Birth Order _____

RESIDENCE (Place of Birth) _____
 RESIDENCE (Place of Mother) _____

COLOR OR RACE _____
 AGE AT LAST BIRTHDAY (Years) _____

BIRTHPLACE (State or Country) _____
 BIRTHPLACE (State or Country) _____

OCCUPATION (Nature of Industry) _____
 OCCUPATION (Nature of Industry) _____

Number of children of this mother: _____
 (1) Born alive and now living (2) Born alive and now dead (3) Stillborn

When practitioner for apoplexism administered? _____
 How long? _____

CERTIFICATE OF ATTENDING PHYSICIAN OR MIDWIFE
 I hereby certify that I attended the birth of this child, and that it occurred on _____
 at _____
 M. on the day above stated

When there was an attending obstetrician or midwife, the name, residence, and address of the same should be stated. If the child was born at a military or naval hospital, the name and address of the hospital should be stated. If the child was born in a hospital, the name and address of the hospital should be stated.

Signature: _____
 (Physician or Midwife)

Address: _____

City: _____ State: _____

MARGIN RESERVED FOR BINDING

Write Plainly with Unfading Ink—This is a Permanent Record

A reduced facsimile of an official birth certificate. Every right of the child as a heir and citizen may depend on the filing of this certificate.

the Local Registrar a death certificate, properly signed by some one conversant with the facts and by the physician last in attendance, and is required to secure a burial or removal permit before the body is buried or removed. Local Registrars make no charge for issuing permits.

The physician, midwife, or other person in attendance on a confinement case is liable to a fine of from twenty to two hundred dollars for failure to report the birth certificate as the law requires, and in addition it is unlawful to collect any charges for attending a confinement case until the birth certificate has been recorded.

The funeral director who fails to file the death certificate before the dead body is interred, shipped or otherwise disposed of is liable to a fine of from twenty to two hundred dollars, and in addition on conviction for a second offense the license of such funeral director or embalmer may be revoked for a period of at least one year.


WHY REGISTER BIRTHS?

There is hardly a relation of life, social, legal, or economic, in which the evidence furnished by an accurate registration of births may not prove to be of greatest value, not only to the individuals but also to the public at large. It is not only an act of civilization to register birth certificates but good business, for they are frequently used in many practical ways:

- (1) As evidence to prove the age and legitimacy of heirs;
- (2) As proof of age to determine the validity of a contract entered into by an alleged minor;

- (3) As evidence to establish age and proof of citizenship and descent in order to vote;
- (4) As evidence to establish the right of admission to the professions and to many public offices;
- (5) As evidence of legal age to marry;
- (6) As evidence to prove the claims of widows and orphans under the Widows and Orphans Pension Law;
- (7) As evidence to determine the liability of parents for the debts of a minor;
- (8) As evidence in the administration of estates, the settlement of insurance and pensions;
- (9) As evidence to prove the irresponsibility of children for crime and misdemeanor, and various other matters in the criminal code;
- (10) As evidence in the enforcement of laws relating to education and to child labor;
- (11) As evidence to determine the relations of guardians and wards;
- (12) As proof of citizenship in order to obtain a passport;
- (13) As evidence in the claim for exemption from or the right to jury and militia service.

PROMPT REPORT OF COMMUNICABLE DISEASES ENABLES THE HEALTH OFFICER TO ISOLATE THE RICKY FROM THE WELL.



WISCONSIN STATE BOARD OF HEALTH MADISON

Certificate of Birth Registration

This is to Certify that a registered certificate of the birth of your child has been filed and is now carefully preserved in the Official Records of the State of Wisconsin in the State Board of Health office at Madison.

Name _____
 Maiden Name of Mother _____
 Birth Place of Child _____
 Date of Birth _____ 19____

C. A. HARPER, M. D.
 State Health Officer

L. W. HUTCHCROFT
 Statistician

C. A. HARPER,
 State Registrar of Vital Statistics

PRESERVE THIS RECORD

When the birth of a child has been recorded, the parents receive a postal card shown above. Non-receipt of such a card indicates that the birth has not been registered and should be immediate cause for inquiry.

ACCURACY IMPORTANT IN DEATH CERTIFICATES

Human life is sacred. When a human being passes out from our life it is important that an immediate record be made of all the essential details of the event. An immediate record, because it is well established by years of experience that an accurate record in all cases can not or will not be made unless the law requires it to be made at once. Such a record should include the facts relating to the exact time and place of death, the full name, age, sex, color, civil condition, occupation, place of birth, and other details relating to the individual, and also, a very important requirement, a state-

A Country School Teacher Takes Up Sanitation*

BY JULIA STAUFFER



A Contrast in Country Schools. Which Type Predominates in Your District?

A young woman known as Louise Smith, recently graduated by the State Normal School, wished to spend a year with her parents, who were farmers in a prosperous rural community. With that idea in mind, she applied for and secured a position as teacher of the district school three miles from her home.

School opened on the first of September and forty-six pupils ranging in age from five to sixteen were enrolled. Most of the children were from fairly well-to-do families and apparently were healthy, normal youngsters.

The first day the children were dismissed an hour early and Miss Smith, having finished a great deal of the clerical work necessary during the opening days of a new school year, began to inspect the building.

It consisted of one large room with two small vestibule entrances. The seats faced the front of the room and were of various sizes; however, there were not enough small ones, with seats the proper distance from the floor and desks in correct relation to the seats. Most of the larger seats had the same ill adjustments.

EVERYTHING WAS WRONG WITH BUILDING

The rear wall and the two side walls boasted two and three windows, respectively, while in the front there was one. Such lighting! The building faced the east, so that the morning sun streamed directly into the childrens' faces; in the

afternoon the teacher must take the same punishment. Old green window shades reached scarcely more than half way down the panes, and disreputable white sash curtains hung dejectedly from the sagging strings that served as curtain rods.

The walls were painted a dingy blue and were covered with various stains, fly specks and dirt. The floor had been mopped when the schoolhouse received its annual summer cleaning, but no one had dreamed of oiling it. The windows were loose and two panes of glass were out. In the center of the room stood a large wood stove; a poorly supported pipe ran half the length of the room to the chimney in the west wall. Blackboards were made of painted wood, badly cracked, and the chalk furnished was the cheapest and dustiest on the market.

At one entrance was a common pail for drinking water, a wash basin and a crash towel. A broken mirror hung by the window; hooks for the children's wraps were scattered about the wall space.

HOGS WALLOWED NEXT TO SCHOOLHOUSE

All of these things presented a most discouraging outlook, but exterior conditions were as bad or worse. Across the front of the building was a cement porch. A high board fence was fastened to the southeast corner of the schoolhouse, extended about four feet perpendicular to it and then ran east until it met the road fence. At the northwest corner was a similar construction extending directly north to the road. Hence there was no playground on the south and west sides of the

*Reprinted from *Hygeia*, June, 1924, by the courtesy of the Editorial Board.

building. Instead, the farmer who owned the land lived a few rods distant and at the time kept several hogs in this particular lot. Three or four of them were then sunning themselves in the dust close to the schoolhouse.

The playground plot scarcely served its function. From the road to the building the land was up grade, and quite rough. The children played across the road on a vacant lot which was part of the church property. Directly north and close to the schoolhouse was the woodshed; behind it the outdoor toilet for girls. A few feet back stood the boys' toilet. There was no well on the grounds, so the drinking water had to be carried by volunteers down a dusty road from the nearby farm house.

OTHER SCHOOLS LITTLE BETTER OFF

Perhaps this sounds greatly exaggerated, but within a radius of five or six miles there were three other schools that boasted conditions scarcely better.

Miss Smith closed the building and woodhouse, went for her horse, which was kept in the church sheds, and started home. She told her parents what she had found and declared she would do all in her power to remedy the conditions.

The first step was taken the next day by a talk to the students about the danger of the common towel and drinking cup. One of the boys informed her that each had his own. To verify this, Miss Smith asked each pupil to produce his. Just seventeen had cups! How did the other twenty-nine drink during that warm September weather? Borrow, of course. So she told them about the paper cups and towels that could be had, and suggested that a covered water container with a faucet should replace the open pail.

But until such could be obtained, she begged the boys and girls to bring cups and towels of their own, and helped one of the older boys to make a pasteboard cover for the water pail, when it was not in use. A clean towel was to be hung up in the morning and again at noon for those who still would run the risk of using it.

SCHOOL WAS GOOD ENOUGH FOR MODERATOR

That night after school, she called on the moderator and asked that the money for cups, towels and a drinking fountain be voted by the board. She also mentioned the broken window panes and asked for mosquito netting to tack over

four windows so that fresh air could be had without so many flies.

"Well, Miss Smith," he said, "perhaps some of these new fangled ideas are all right, but I went to school in that same building and what was good enough for me is good enough for my kids. As to the window panes—it is warm yet—but I'll get them fixed in a few days."

The few days ran into five weeks and, in the meantime, cardboard and old rags had to be used to keep out the wind and rain. In regard to the condition of the building, the moderator had seemed to forget that it had depreciated considerably during the fifteen years since he had been a pupil. He should have been progressive enough to want his children to be surrounded by better conditions than he had endured, but belonged to that type of farmer who lets his family live in a ramshackle house and has a fine barn for his cows, sheep and horses.

Miss Smith was disappointed, but did not give up. On her way home she stopped to talk with a second member of the board and presented the case to him. He agreed with her. He had four children in school and said he wanted them to have the best that could be afforded.

"But, you know," he said, "the other members are very conservative, and I can't do much alone."

FLIES SWARMED ABOUT LUNCHES

Well does the writer remember the day in the second week of school when she called at noon at this schoolhouse. Several children were eating outside, but many were in the building. The windows were wide open because it was still very warm. Flies were swarming around the lunch baskets and the bits of food on the desks. Just outside I could hear the grunts of three black hogs as they wallowed in the mud of a recent rain. Miss Smith was greatly discouraged and did not conceal the fact.

"What can I do?" she said. "It is a colossal task. I can't get a penny out of the board, and I cannot afford to buy all that is needed. I have been giving daily health talks to the children, and gradually working up their interest in sanitary surroundings through posters and stories in language and physiology classes. I think that quite soon I shall suggest a 'social' of some kind to raise money for the necessary things."

About the middle of October there appeared an announcement in the local paper of a box social to



With eyes blinded by the light, and with feet dangling in midair, the children in the country school on the left are facing handicaps to health as well as to education. Note the transformation on the right—no cross lighting and adjustable desks.

be held in the home of Mr. Brown. A program would be furnished by the pupils and the money raised would be used for some improvements for the school building. The affair was a success and \$48 was raised. A fish pond and candy booth were added features that helped to swell the proceeds.

TRANSFORMATION WAS BEGUN

In November the writer again called at the school. What a change! There were paper towels and cups, a water cooler, a new mirror, several boxes of dustless chalk, clean white sash curtains at the windows and mosquito netting over the outside of four of them. The windows in front were boarded so that no light could come from that direction. New long tan shades, which could be adjusted from the top or bottom, were in place at the other windows.

"I finally have persuaded the board to buy the shades and they have promised to oil the floor during the Thanksgiving recess," Miss Smith declared.

"A week ago I held a debate here between the seventh and eighth grade English classes and the children invited their parents. After the debate I talked to them a few minutes, explaining the evil effect of this lighting on the children's eyes and told them how badly the dust rose from the unoiled floor. I have kept a few dollars to buy more towels and cups, but we plan to give a bazaar and bake sale in Evansville before Christmas to obtain more money for that purpose. I shall induce the parents to come here again by means of another debate and an exhibit of the work done by the children. Then I want to discuss conditions outside the building. The children so badly need

more room for outdoor exercise and some playground equipment."

Of course the building really needed to be remodeled with the windows all on one side, so that the light would come from the south or west and fall over the left shoulders of the pupils.

TEACHER EXAMINED CHILDREN'S EYES

The light had been so poor and the cross lights so trying that the teacher was certain some of the pupils' eyes needed attention, especially the eyes of the older ones who had been studying by it for five or six years. So she secured a simple eye test and examined all the pupils. Several needed glasses, and be it said to the credit of the parents that all but one obtained proper treatment for their children.

Throughout the year Miss Smith kept in close touch with the parents and other residents of the district. In April she accepted a position in a town in another part of the state, but her efforts had evidently not been in vain.

SCHOOL WAS BROUGHT UP TO STANDARD

At the election that spring the member of the board who said, "It was good enough for me," was replaced by Mr. Brown. He pushed the idea of improvement and when school opened the next fall it was declared a standard school. The lighting had been remedied, a furnace installed, indoor sanitary toilets built where the old entrance halls had been and a main entrance placed in the center. New adjustable desk chairs had been bought and slate blackboards put in.

Three rods of land south and west of the building was purchased so no more pigs could sleep peacefully in the shade of the schoolhouse, and the pupils had adequate playground room without

running across the road on other property. Already the children were talking about a little play they were going to give to raise some money for playground equipment.

A Teacher, Nurse, Statician, Diplomat, and a Speaker and More, a Worker—The County Nurse

BY MISS NELLIE VAN KOOY, R. N.,
PRESIDENT, STATE NURSES' ASSOCIATION
MILWAUKEE.

County nursing became a reality in 1913 when the legislature passed an act making it possible for counties to employ County Nurses. Two nurses were already employed in rural anti-tuberculosis work, one in Sheboygan County under the direction of the local tuberculosis association and the other in Milwaukee County by the Board of Trustees of what was then known as the Greenfield Sanatorium. But it was not until the spring of 1914 that the first county nurse, employed by the county board, made her appearance.

County nurses are now fairly well established in Wisconsin but there is still need for a better understanding of their powers and limitations. Let's look at a fictional but nevertheless true picture of the beginning of public health nursing in Blank County, which until recently has been a "backward county."

When the representatives of the Women's Clubs had advocated establishment of a county nurse—an appropriation to cover salary and expenses—the County Board had not been very enthusiastic. Here was another tax eater and God knows that health conditions in prosperous Blank County probably could not be improved much. And anyway, conditions were so much better than they had been in grandfather's day that there was no call to be kicking about them.

However, the women won out—as they always can when they manage their male public officials along precisely the same lines they have been using for generations in managing the "men folks" in their own households. And as soon as the vote was taken, even the original objectors were as eager to see the work begun as a recent buyer of an automobile is to manipulate the gears on the new car.

What a blessing are teachers like Miss Smith! Most parents have a vital interest in their children and all that is usually needed in such cases is some one to open their eyes and point the way.

And so the committee appointed by the board got busy to find the nurse. As to qualifications? She had to be young, but not too young; strong; have a pleasing personality; should know when to speak, but most of all, to keep quiet without appearing to be dull; to be a good mixer; attractive and a home girl, if possible, but occasionally, the qualification as to training and experience became a question worthy of consideration.

How was the nurse to get about the county? Walk? Perhaps. But with the county containing seventy-five or eighty squares miles, it became almost an impossibility. The chance of going with friendly travelers was seriously considered but tabooed as most of the friendly travelers in cars insisted upon traveling in the opposite direction. Finally, a Ford was secured and surely now the committee was ready to have the county nurse begin the county's work. On a bright sunny day the nurse arrived—very businesslike in a grey uniform with hat to match. After depositing her bag at the county seat hotel, the nurse visited the court house to meet the members of the county health committee, the law providing that the chairman of the county board, the county judge, the county superintendent of schools, the deputy health officer and a woman appointed by the county board shall constitute this supervising committee.

VITAL STATISTICS FIRST

The nurse found only the county superintendent in the office and after a preliminary greeting, proceeded to discuss the need of the county in general. The county superintendent supplied such information as the number of schools in the county, pupils enrolled, condition of roads and distances. From there, the county nurse called upon the Registrar of Deeds and he kindly allowed her to get such information from his files as would be helpful in her work. She classified this information; deaths from tuberculosis for the last five year period, name, address, occupation, age of patient, how long under physician's care, etc. It was a surprise to

learn that many patients had not seen a doctor regularly until within a few days of death. Deaths from other causes—such as communicable disease, during or right after child birth, babies under one day, one month and one year—all these were recorded. Birth record lists were made of babies born during the last two years, who the doctor or midwife was, whether the child was born without any visible defects, whether silver nitrate had been used in the eyes to prevent blindness as prescribed by law, the number of children born in the family and the number living. This was valuable information as it was found in some cases that ten children had been born but that only two were living. This was jotted down in a notebook marked with red ink to secure attention in the near future.

The nurse secured from the telephone book the names of the doctors and dentists and proceeded to call on them. Dr. A. received the nurse kindly enough, glad to know the nurse was to be in the county, asked if there were anything he could do. The nurse sighed with relief. Yes; "You know that we as nurses cannot make a definite inspection of school children. At the best, we can only state that we have observed something of a suspicious nature," and might she, if she learned that he was the family doctor bring the "suspicious" children, with the consent of the parents, of course, for an examination?

A reassuring nod from the doctor. "To be sure; bring in the patient. I'll be glad to help all I can; and by the way, Nurse. I have a patient I should like to have you call on. There isn't much that you can do, but perhaps you may suggest to the family a little more they can do to provide better home nursing care or to prepare food that would be more suitable."

The nurse, only too happy to be of service, promised to see the patient that same day. And so she proceeded throughout the day, from office to office. On the whole, a satisfactory day as doctors and dentists gave encouragement that in the near future a school examination of all children at the school could be arranged. One dentist was particularly anxious to have the dental examination at school because his practice showed, only too well, the need for greater dental prophylaxis. Too many mouths proved the fact that parents still believe it unwise to have baby teeth cared for which "have to come out anyway."

The next few days were spent in meeting the

superintendent of schools and the teachers, members of the school board and prominent people in the community—such as the officers of the women's clubs, the mayor, district attorney, president of the parent-teachers' association, and others. And then, the first meeting of the health committee was held at the court house. The nurse, loaded to her finger tips with information secured from various sources, had outlined for herself a tentative plan of work to be submitted to the board before anything definite could be done. The Public Health committee organized, elected a president and secretary and took the proceedings of the first meeting down in a little black book. The Chairman then called upon the nurse and she presented her program. It was a rather alarmingly large one, and as the Chairman glanced at the nurse, he said: "I thought you only worked in the schools."

"A MAN-SIZED JOB"

The nurse answered, "Let me read to you the duties of the nurse as outlined by law. They are as follows:

"To act as health supervisor for all schools not already having school inspection either by a physician or school nurse; to assist the superintendent of the poor; to instruct tuberculosis patients and others in preventing the spread of tuberculosis; to assist in reporting existing cases of tuberculosis and other communicable diseases; to assist investigating cases of delinquency, neglect and dependency of juveniles, including state aid to dependent children, in counties not employing a probation officer; to assist in investigating cases of non-school attendance in districts where a school attendance officer is not employed; to assist in investigating cases of infringement on child labor laws; to investigate cases of crippled children due to infantile paralysis or other causes; to act as health instructor throughout the county and to perform such other duties as may be assigned to her."

As you see, the county school program is but part of the whole, and though it is generally recognized that the school is the entering wedge into the home, we must fit our program to meet the needs of the babe, the aged, the tuberculous and the mother's pension case, not forgetting the neglected child who is sadly in need of institutional care. The Committee decided that some clerical help must be provided because only such work as was well done and carefully recorded could be of last-

ing value. It was also decided that the nurse was to have an office with an equipment necessary to carry on her work efficiently. So the meeting was adjourned with a promise that monthly meetings were to be held regularly for the purpose of going over the reports, to pass upon the monthly expenses incurred and to plan for special clinics. The Child Welfare Special was going to be in the county for several weeks and chairmen for the townships had to be appointed. The County Board appropriated a sum of money for traveling chest clinics and places had to be decided upon where they should be held. The need for an open air room was to be brought up because the school examinations conducted by local physicians and dentists revealed an alarmingly large number of children on the "border line" of malnutrition, the forerunner of tuberculosis and other serious disease. And so the nurse goes about her work, from home to school, back to the home again; to the doctor and back to the home, forever carrying the message, "Health Above All."

A DAY WITH THE NURSE

Let us spend a day with the county nurse in the field. Bright and early we start, 7:30 a. m., because we must make the school by 8:30, as the local doctor, the only one in the small village, had promised to examine the children for the goiter prevention program. The nurse had previously sent pamphlets to the school to be used by the children in the high school and upper grades for essays written, which, incidentally, caused the children to discuss this new health project at home. "Consent-slips" had been received from the parents and were alphabetically arranged by grades, ready for the nurse, and so the work began. Children in groups of ten, with unbuttoned collars, came forward, the doctor examining the thyroid glands, the nurse measuring the neck and the assistant marking the findings—negative, plus, two plus. It was quiet in the room, only the doctor's voice commanding "swallow" and the child, somewhat scared and having nothing to "swallow" made rather weak attempts. Suspicious cases had the pulse rate recorded for follow up and by noon, some 150 children had been examined.

A GAME OF HEALTH

The prophylactic tablets were promised for the next week, to be given as directed and only to those whose parents signed the consent-slips. The doctor promised to "look in" in about a week to see how things were going.

The Ford, replenished with gas and oil, and the County Nurse and visitor had dinner. The next stop was at the home of a young father who, with the help of his mother had been trying to raise a three weeks old, motherless baby. The grandmother was anxious enough to do her best, but with the foolish advice of well meaning neighbors, the baby had not been doing well. In a good natured, nevertheless insisting way, the nurse had suggested a game a couple of weeks back, that they were to play together—the nurse to be the leader, the grandmother and baby participants and all under the grand lead of the doctor who prescribed the play. Now, after two weeks of serious work, the baby showed a decided gain and it was a happy grandmother who met the nurse at the door with "Never mind your rubbers, Nurse; come right in."

The baby was weighed, the amount to be fed increased, a few suggestions made as to ventilation of the baby's room now that the weather was turning cold, and the Nurse was once more on her way.

Two more calls before the Ford could be turned toward home. The next call was at a farm where the man was dying from cancer. Kind neighbors had asked the nurse to go in, though the farmer's wife was giving the patient the very best of care, thanks to the family doctor who so patiently had taught her to care for the patient. Neighborliness and the possibility of a friendly suggestion or two caused the Nurse to call, slowly and reluctantly. There was nothing she could do, but the patient was happy to see her, if for no other reason than to tell her what a good nurse his wife was. It was getting dusk and home was still many miles away, and many, many calls were yet to be made.

The next stop was in a village, at the home of the president of the Woman's Club. "Yes, we do want a health speaker for our next program; will you get us one, and when are you coming to really see me? You are so busy, but we want you for supper. Can't you stay now?" No, the Nurse had to be in town for a meeting at seven o'clock and with a friendly good-bye, she was on her way.

PREVENTION—HER JOB

"Let us stop here and see this boy a minute," said the Nurse. "The father is in a sanatorium and doing nicely; the family had been examined at one of the chest clinics and there was some doubt about this boy. The doctor at the clinic recommended that he be placed under the observation of the family physician."

The boy was all ready to give his report. Oh,

yes; he drank milk, slowly, to be sure, and had green, leafy vegetables every day. What about rest—the two hours after lunch, in bed—ten hours with windows wide open?

"But, Nurse, my toes got cold last night."

Mother smiled but the Nurse explained the proper way to make a porch bed, using paper between the mattress and the spring. This brought out an endorsement from grandfather who was sure Nurse knew what she was talking about because in "the old country, he wore a paper vest," and it certainly kept out the cold.

The weary, but nevertheless happy nurse went on, somewhat late for her dinner engagement, but already planning for the next day. And so the county nurse's work goes on and on and on in Wisconsin, somewhat misunderstood in some places, but gaining understanding and new supporters day by day.

Learn to know your county nurse; support her in her work which after all, is your work and as time goes on, working together, you will make the coming generation happier than any past one ever has been.

"Captain Cancer" Leads The "Company of Death" in Wisconsin; Ignorance is His Best Weapon

BY H. B. SEARS, M. D.,

EPIDEMIOLOGIST, STATE BOARD OF HEALTH

Statistical reports recording the mortality from cancer for many years past show a considerable numerical increase. While we moderns have been busily engaged in trying to knock transmissible diseases on the head, cancer has taken the opportunity to glide upward. For instance, the number of deaths from cancer in the U. S. registration area (in which certificates are well kept) was 24,330 in 1905; in 1910 it jumped to 41,039; in 1915 was 54,584, while in 1920 it jumped to 72,931. Despite the increase in population, this shows a greater increase in proportionate death rates. The rate per 100,000 population was a third greater in 1920 than it was in 1900.

Cold statistics would seem to show that cancer is on the increase; but in the consideration of these figures certain accessory facts come into play. It is known by all that cancer is most generally a disease of the latter half of life. Some few occur in early years, but the great majority are beyond the meridian of our ages. In the betterment of human life our age limit is constantly advancing and now 54 years is the average age to which we attain in the United States. This is a truly marvelous increase in the length of life, but it has not helped cancer. Instead it has taken us into the cancer years, and that is doubtless one great cause of the apparent increase in cancer.

It is also true that the methods of diagnosis of internal cancer are vastly superior and more accurate than in the days before the discovery of the X-ray and other modern equipment. Cancers

are diagnosed now when they were not diagnosed before, and this undoubtedly adds to the sum total as far as statistics go. So there you have it; some physicians will say that cancer is on the increase and some will tell you it is not, and we hereby leave it to the reader with a question mark on that phase.

But whatever we think about the prevalence of cancer, the startling fact stands out clear that *there were 2,534 deaths in 1923 in Wisconsin from cancer*. In the same year the mortality from all forms of tuberculosis was 1,819. Dr. Osler, a noted physician, used to speak of tuberculosis as the "Captain of the Men of Death," but at least in Wisconsin the company seems to have shifted captains and now cancer has a prior claim to tuberculosis.

There has been a vast amount of work by scientists and heavily endowed institutions to ascertain the primal cause of cancer. There are some peculiar observations concerning its greater prevalence in some cities than in others, and in some family lines more than others, which might help to throw some elucidation on the subject, but so far the ultimate microscopic cause has never been discovered.

LESSENING THE MORTALITY

In studying the statistical tables some facts are apparent which point a way to the lessening of the mortality. We are quoting below an anatomical and sex tabulation of the mortality per 100,000 population in the U. S. registration area for 1923:

		Males	Females
Cancer of mouth.....	3,422	2,795	627
Cancer of stomach and liver.	37,191	19,461	17,730
Cancer of peritoneum and intestines	13,967	6,165	7,802
Cancer of the breast.....	9,198	117	9,081
Cancer of the skin.....	3,190	1,951	1,239
Cancer of other organs.....	33,032	12,114	20,918
TOTALS	100,000	42,603	57,397

This table shows that cancer of the mouth is four times as prevalent in the male sex as in the female sex and that cancer of the skin is considerably more prevalent in males than in females. We are not here sermonizing upon the subject of tobacco, but there is only one habit which men have in relation to the mouth which women do not have, and that is the use of tobacco. Men in trades are more subject to skin irritation than women both because of numbers and the greater liability to the rougher tasks. It seems to be evident, therefore, that chronic irritation is at least a marked provocative element in the development of cancer. It is also reasonable to assume that if irritation in one part of the body has brought about cancer, like irritation of some sort, such as constant frictions, burns from hot food, etc., will in another place also help to develop the disease.

REMEDIAL MEANS AT HAND

The point is clear that the prevention of chronic irritation upon any part of the body should be avoided, especially late in life. Decayed roots of teeth and improperly fitting dental work, and chronic irritation produced by any part of the wearing apparel are subjects for remedy. The use of too hot drinks has at least theoretically been condemned as possible cause for stomach cancer. For a great while we have been familiar with the common statement that cancer is incurable and that whoever suffered from cancer was doomed. It is certain that cancer is a very serious affliction, but the outlook is by no means as cheerless as the above statement infers.

One of the chief characteristics of cancer is that it remains in local bounds for a while and then invades nearby and distant tissues. Particularly is it carried into distant glands as the manner of an infective process, and there getting a new local start proceeds as before. Whatever information we lack about cancer this point we know, that as long as the disease is in its beginning it is confined to one local spot. If it can be diagnosed at that time, the removal of that local area accomplishes a cure. It becomes the work of a skilled

surgeon to cure cancer, but the greater responsibility is on the patient in the necessity of consulting a medical man at the very beginning of any suspicious symptoms of that nature.

The rough or hairy mole or the small harmless tumor is prone to turn into a cancerous growth in the advanced years of life, and they should be removed. Perpetually chapped or cracked areas on the lips, lumps on the breast and bleeding surfaces from internal organs are always ground for thorough investigation. Most people very naturally shudder at the thought of a knife and this is responsible for much delay, but our knowledge tells us that early and prompt removal would have saved many a life that has gone by default.

The use of a sufficiency of radium in well endowed establishments is playing its part in the treatment of cancer. At the hands of an expert something may be accomplished along that line. It is up to the surgeon to say whether or not it will be beneficial in the different individual cases. Cancer is with us in apparent increasing prevalence, according to statistics, and we might as well make the best of our knowledge and face the facts.

YOU CAN'T NEGLECT THE MACHINE AND KEEP UP PRODUCTION.



Frequent Physical Inspection the Best Form of Business Insurance.

OH, DOCTOR, DOCTOR!

Since this is the layman's number of the JOURNAL it has been suggested that the caption we have been accustomed to head our column with be changed to something less exclusive, as for instance "Oh Reader," in order to include the hoi polloi, though by no means the great unwashed. But I would never agree to this because presumably one or two, and possibly even five readers have followed this column, if not with interest, at least with a certain dogged persistence, which shall not be frustrated by any inexpensive consistency on my part.

To the lay mind (and I must own that medically my mind is lay, although I try never to let it lie) physicians have a monopoly on those orotund Latin phrases which describe our simple ailments. I do not suggest that they are not beautiful. They are. Even at this late date George Herbert Palmer would be the first to point the finger of scorn at the man who did not know that the study of English is divided into four parts, of which the study of Latin derivatives is not the least important, nor the least interesting. Two-thirds of all the words in the language are derived from Latin—if you have a dictionary at hand you may easily verify this—and in addition,

the medical profession has invented an esoteric panoply of its own, mellifluous, mouth-filling phrases, which the physician casts into the aching void of the patient's mind, whence they return, microbe-spotted, to be sure, but accompanied by a fee. What I suggest is that the layman be made more familiar with medical terms. Although acquainted with the commoner "-itises" and the given names of one or two bones, there is a wealth of diseases quite beyond his ken which would help to while away the long winter evenings of the farmer, or divert the car rides of his city brother. Around these Latin words is flung the glory and the mystery of the un-understandable, beautiful because unintelligible. Since the abolition of pagan rites, sacrifices, pilgrimages, and so on, beauty as an avocation has fallen off, and maybe lineal Latin words would restore it.

Perhaps a cross-word puzzle, medical terms on the horizontals, familiar words on the verticals, would do it. But no—cross-word puzzles are taboo. What great professor has not arisen to shout that they are merely intellectual motion, not progress? Careful perusal of this JOURNAL seems to be the best way.—H. A. J.

CONSISTENCY

Ordering a copy of Tennyson's poems, a customer wrote to an English bookseller, "Please do not send me one bound in calf, as I am a vegetarian."—*Boston Transcript*.

Wrecked motorist at the phone: "Send assistance at once. I've turned turtle."

Voice (from the other end): "My dear sir, this is a garage. What you want is an aquarium."—*Burr*.

AND GETS IT?

"Has the baby had the measles yet, Mr. Smith?"
"Sh-sh! Don't speak so loud. Whenever he hears anything mentioned that he hasn't got, he cries for it."—*Tit-bits*.

"PRACTICE MAKES PERFECT"

Doctor: "You cough easier this morning."

Patient: "I ought to, I've been practicing all night."

Popular Song—"They Call the Baby Coffee, 'Cause He Keeps Them Awake at Night."—*Oregon Owl*.

Rae: "And did you visit Rochester on your wedding trip?"

Mae: "I really don't know. You see, Jack always bought the tickets."—*Judge*.

BIBLICAL TREATMENT

Received by an Easley (S. C.) physician.

Dr., I have a sister something rong with her and She said if you please write her a scripture for something to destroy it and what will you charge?—*Journal A. M. A.*

THE FACTS ABOUT LINCOLN

Essay of a precocious young child in Caro, Mich.

Abraham Lincoln was born in 1809. His folks were so poor they didn't know it. He didn't have any clothes so he went to split rails for a lady while she made him a suit. In 1897 he began to study law. He had only three books to study but he was elected president and became a great man. He freed the slaves and loved his enemies. He had a terrible accident and lived only two hours after he was shot in the booth.—*Journal A. M. A.*

THE JOURNAL BOOK SHELF

Medical and Sanitary Inspection of Schools. By S. W. Newmayer, A.B., M.D. Lea & Febiger.

Diseases of Middle Life. By Frank A. Craig, M.D. F. A. Davis Co.

Diabetes: Its Treatment by Insulin and Diet. A Handbook for the Patient. By Orlando H. Petty, M.D., Graduate School of Medicine, University of Pennsylvania. Cloth, 111 pages. The F. A. Davis Co., Philadelphia, \$1.50.

Hygiene and Public Health. In this book the author has epitomized many branches of science related to hygiene and public health. The book contains about three hundred pages and treats of household hygiene, child hygiene, school and industrial hygiene, public water supply, foods, meat foods, milk supply, disposal of wastes, public nuisances, prevention of infectious diseases, and federal hygiene.

551 pages with 229 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth \$4.50 net.

Medical Clinics of North America. (Issued serially, one number every other month.) Volume VIII, number III. November, 1924. (Philadelphia Number.) Octavo of 324 pages and 29 illustrations. Per clinic year (July, 1924, to May, 1925): Paper, \$12.00; cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

Concealed Tuberculosis or the Tired Sickness. By George Douglas Head, B. S., M. D. A Clinical Study upon the Exhaustion Type of Hidden Tuberculous Infections. Price \$2.00 net. P. Blakiston's Son and Company, Philadelphia.

The Physiology of Exercise. By James Huff McCurdy, A. M., M. D., M. P. E., Director of Physical Education Course in the International Young Men's Christian Association College, Springfield, Mass.; Editor of the American Physical Education Review. A text-book for students of physical education. Illustrated. Lea & Febiger, Philadelphia and New York 1924. Price \$3.00.

Basal Metabolism in Health and Disease. By Eugene F. DuBois, M. D., Medical Director, Russell Sage Institute of Pathology; Associate Professor of Medicine, Cornell University Medical College. Illustrated with 79 engravings. Lea & Febiger, Philadelphia and New York, 1924. Price \$4.75.

Lectures on Pathology. By Ludwig Aschoff, M. D., Professor of Pathologic Anatomy, University of Freiburg, Germany. Delivered in the United States, 1924. With thirty-five illustrations. Paul B. Hoeber, Inc., New York, 1924. Price \$5.00.

A Textbook of Materia Medica for Nurses. By A. L. Muirhead, M. D., Late Professor of Pharmacology, Creighton Medical College, Omaha, Nebr., and Edith P. Brodie, A. B., R. N., Instructor in Materia Medica and Therapeutics, Washington University School of Nursing, St. Louis, Mo. Second Edition. C. V. Mosby Company, St. Louis, 1924. Price \$2.00.

Fundamentals of Human Physiology. By R. G. Pearce, B. A., M. D., Formerly Director Medical Research Laboratory, Lakeside Hospital, Cleveland, Ohio; Formerly Assistant Professor of Physiology, University of Illinois, Chicago, Ill., and J. J. R. McLeod, M. B., D. Sc., F. R. S., Professor of Physiology in the University of Toronto, Toronto, Canada; Formerly Professor of Physiology, Western Reserve University, Cleveland Ohio. Third Edition. C. V. Mosby Company, St. Louis, 1924. Price \$3.50.

A Diabetic Manual. By Elliott P. Joslin, M. D., Clinical Professor of Medicine, Harvard Medical School; Consulting Physician, Boston City Hospital; Physician

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

RECEIVED FOR REVIEW

Physical Diagnosis. By W. D. Rose, M. D., Lecturer on Physical Diagnosis and Associate Professor of Medicine in the University of Arkansas; Visiting Physician Little Rock City Hospital, Baptist Hospital, and St. Vincent's Infirmary, Little Rock, Ark. Fourth Edition, containing 755 pages with 319 illustrations. St. Louis. C. V. Mosby Company, 1924. Price \$8.50.

International Clinics. Volume IV. Thirty-fourth series, 1924. Philadelphia and London: J. B. Lippincott Company.

Ophthalmic Year Book, The. Contains bibliographies, digests and indexes of the literature of ophthalmology for year 1923. Volume XX. Geo. Banta Publishing Company, 1924, Menasha Wis.

Text-Book of Pathology. By William G. MacCallum, M. D., Professor of Pathology and Bacteriology, Johns Hopkins University. Third edition, thoroughly revised. Octavo volume of 1,162 pages with 575 original illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 net.

Manual of Obstetrics. By John Cooke Hirst, M. D., Associate in Gynecology and Obstetrics, Graduate School of Medicine, University of Pennsylvania; Associate in Obstetrics, School of Medicine, University of Pennsylvania. Second Edition, entirely reset. 12mo of

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Literature for
Physicians



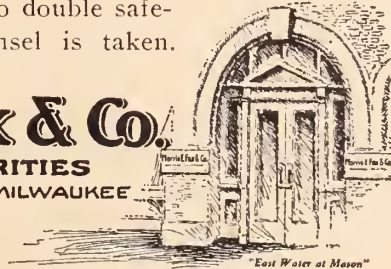
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EAST WATER AT MASON...MILWAUKEE



to New England Deaconess Hospital. For the mutual use of Doctor and Patient. Illustrated. Third Edition, thoroughly revised. Lea & Febiger, Philadelphia and New York, 1924. Price \$2.00.

Operative Surgery. Covering the Operative Technic involved in the operations of general and special surgery. By Warren Stone Bickham, M. D., F. A. C. S. Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York, Former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5,400 pages with 6,378 illustrations, mostly original and separate Desk Index Volume. Volume VI, completing the set, contains 989 pages with 1,224 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription only. Index Volume Free.

SOCIETY RECORDS

NEW MEMBERS

Lambert, J. W., Antigo.
 Rogers, E. H., Hartford.
 McLaughlin, W. J., Wrightstown.
 Silbar, S. J., 530 Grand Ave., Milwaukee.
 Jacobson, E. B., 204 Grand Ave., Milwaukee.

CHANGES IN ADDRESS

Coluccy, M. J. J., 752 W. Washington Ave., Madison—104 So. Brooks St., Madison.
 Kriz, G. H., 540 12th St., Milwaukee—137 Second St., Milwaukee.
 Ladewig, Harry, 385 Kenwood Blvd., Milwaukee—438 12th St., Milwaukee.
 Vaehitinsky, Samuel, 200 Lyon St., Milwaukee—141 Wisconsin St., Milwaukee.
 Hansen, R. T., 416 11th Ave., Wauwatosa—420 11th Ave., Sta. A, Wauwatosa.
 Reeves, S. T., Albany—366½ Prospect Ave., Milwaukee.
 Scholter, E. W., 1155 29th St., Milwaukee—1108 44th St., Milwaukee.
 Puestow, K. L., La Crosse—University Clinic, Madison.
 Schoen, Chas., 209 Grand Ave., Milwaukee—1007 Majestic Bldg., Milwaukee.
 King, Mollie, Eau Claire—Union City, Ind.
 Schubert, C. K., Madison—Vienna, Austria.
 Jones, G. S., 141 Wisconsin St., Milwaukee—225 Wisconsin St., Wauwatosa.
 Hovde, A. G., Superior—1115 Toft Bldg., Hollywood, Calif.
 Fitzgerald, G. F. A., Hales Corners—1367 8th Ave., Milwaukee.

A REASON WHY

The public sometimes wonders why the medical world greets announcement of the discovery of reputed new remedies with so little enthusiasm and appears so slow to give them recognition. There is a good reason for it. The first to take advantage of reputed new remedies are

the quacks. They lose no time in foisting upon the public various nostrums alleged to be based upon the "new discovery." Meanwhile the bonafide physicians are pursuing their tests and investigations. These may reveal that the hopes are wholly unjustified or that the claims made are exaggerated. Truth finally overtakes falsehood, but before it arrives much mischief has been done.

The most recent instance is the exaggerated importance attached to gland surgery. Prof. T. C. Burnett, of the University of California, says that rejuvenation by means of gland operation is only temporary. This improvement will continue to be temporary until knowledge of the physiological aspects of glands and gland secretions is vastly increased.—Antigo Journal.

YOUR OWN HEALTH

Every man is the custodian of his own health. He can use or abuse it to suit himself and the penalty exacted is one he must pay.

When man wilfully neglects his own health and therefore, because of some affliction, endangers the well being of others, then it is necessary for the law to step in and tell him that he must do thus and so.

The welfare of the majority, not that of the individual alone, must ever be the rule in questions of public health.

Vaccination as an active agent for the prevention or combatting of smallpox long ago demonstrated its efficacy. A disease once considered as certain and quick death yielded to this new form of treatment. Great epidemics of smallpox once so common are seldom if ever heard of nowadays.

Typhoid fever, also one of the great scourges of mankind, is being controlled through the use of serum treatments. This disease in former wars cost more lives than the toll on the actual field of armed combat. But typhoid also is going by the boards before the advance of medical science.

Serums for the treatment of diphtheria, tetanus and more and more afflictions to which the human flesh is heir are constantly being used with better effect and more positive results.

And yet, despite all this onward march for the protection of public health and the saving of human life, there's an effort in certain quarters right now to discredit all vaccines, serums and everything of that sort. The public would do well to "Stop, Look and Listen" before accepting the word of the propagandists, who have been literally flooding the country with placards and pamphlets of all sorts for a week or more to boost their own cause—a cause so at odds with the dictates of common sense that one wonders how it can even gain a hearing.—Fond du Lac Reporter.

ADDRESSES OF ALUMNI WANTED

Alumni New York Skin and Cancer Hospital Graduates of this post-graduate school are requested to send their present professional office address to the secretary of the reorganized Alumni Association. Dr. Herman Goodman, 15 Central Park West, New York City

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The work of this Clinic is limited to neurology, psychiatry, syphilis, cardiac and endocrine disorders.

The service is both diagnostic and therapeutic.

Syphilis in all its phases, especially late manifestations and syphilis of the central nervous system, will be treated. Limited hospital facilities for this purpose are available at Madison.

Metabolic and cardiac disorders will receive special attention.

Our diagnostic service includes psychoneuroses, psychoses, conduct and behavior disorders in children.

The Clinic is equipped to render special service in the following diagnostic methods:

SEROLOGICAL examination
DARK FIELD examination
LUMBAR PUNCTURE
ELECTROCARDIOGRAPHY

BASAL METABOLISM
CARDIAC FLUOROSCOPY
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PUBLIC HEALTH NOTES
FROM THE
STATE BOARD OF HEALTH

Miss Hattie Hayes, formerly head nurse at St. Mary's Hospital at Ladysmith, has been appointed county nurse for Rusk County.

For conditions such as chronic muscular atrophy, there is no public institution, it was advised, where an indigent can be sent for care and treatment at public expense, other than a county poor farm.

A goiter clinic for the school children of Cambridge was scheduled, in cooperation with the village health officers and physicians. The administration of anti-diphtheria measures by the approved procedure was also advocated.

Advice was given to a citizen who inquired about the value of a certain disinfectant, that the efficiency depends upon the phenol coefficient, which can be ascertained from the label to that effect, and which is required to be shown on all such products if they are sold in Wisconsin.

If a smallpox patient is isolated in one room and not permitted to come in contact with other members of the family, or with patrons of an adjacent store with which the living rooms are connected, there is no reason for closing the store to the public. If, however, it becomes necessary to quarantine the entire premises and prohibit the public from visiting the premises, this can be done and any loss incurred in the business must be borne by the owner.

An inquirer was informed that the cost per child for immunizing against diphtheria through toxin-antitoxin usually ranges from 80 cents to \$1, if it is done through the schools. It was declared the immunization probably will last through life.

A district attorney gave wrong advice, the board informed a health officer, when he gave an opinion that a smallpox patient cannot be taken

to an isolation hospital against his will. The local board is authorized to provide for the removal or confinement of a person having a communicable disease, and any expense incurred must be paid by the party under quarantine. If he insists on breaking quarantine the health authorities are empowered to employ guards, or to place him under arrest.

"In the case of a death in a family under quarantine, a public funeral is not permitted but the members of the family may be allowed to accompany the remains to the grave if this can be done without exposure to the general public."

A deputy state health officer was detailed to investigate a charge that a chiropractor had entered premises quarantined for scarlet fever. Attempts to treat the patient while the home is under quarantine, by any but a licensed physician or a nurse, were declared cause for arrest and fine.

It was advised there are two types of legal quarantine, either a placard containing the word "Quarantine" in letters at least 2 inches high or a sign containing the name of the disease for which quarantine is established.

Declaration was made by a citizen that his name credited in a birth certificate as the father of a certain child was erroneously reported, as was later proven in a court action. He was invited to furnish a certified copy of the court record, which will be authority for changing the record of birth in accordance with the court decree.

"Will state in answer to your inquiry there is no law providing for the free vaccination of all unvaccinated persons. In many localities in order to encourage vaccination among the whole population, the town or village board or common council arranges to furnish the vaccine without charge and pay all expenses of administration."

Investigation was made of the alleged failure of a Milwaukee physician to administer silver nitrate solution in the eyes of a newborn child. Eye infection which developed soon after birth prompted the charge that the attending physician had withheld the preventive treatment for infant blindness.

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The Future Progress of Medicine and Its Relation to the Natural Sciences in the University*

By CHARLES K. EDMUNDS, M.D.
Provost, John Hopkins University

Universities have in their long history had many forms and played many parts; but their essential nature, as a distinctive and necessary part of any civilized society, is simple and unchanging.

A university is an organized and continuing body of men associated together, after due training, for a three-fold task:

(1) To deal at *first hand* with the sources of knowledge, to verify truth and so far as possible enrich man's store of it;

(2) To impart such knowledge, and the methods by which it may be further extended, to students at the final and highest stages of their preparation for their own active professional careers.

(3) To inspire those trained to service.

It is important to realize that all universities, ancient and modern, are built of brains, not bricks.

The eye sees campus and buildings, library and laboratories. But these are not the essence of a university. They are the tools, without which progress is impossible, and they largely constitute the contrast between the university of today and the university of ancient times.

But the essence of a university is its *men*, and the *spirit* which guides them.

This spirit is simply a faithful adherence to the triple function of teaching, research and service.

The teaching is fundamental. But so is the spirit of research; the active quest for truth as distinct from its passive absorption—without which no teaching institution, however large, has the genuine character of a true university.

SERVICE

To these two, we must add *service*. Service to the local community, service to the state, service to the nation, yea, and service to the world; and these cannot be maintained except through service to the

individuals who compose society. A true university cannot thrive apart from an outlet in the community for its product in men, in ideas and in spirit. It must keep its feet on the ground; it must develop "legs" as well as "head." I am reminded of two stories to illustrate this double point. Lloyd George, when making one of his famous campaign speeches, was heckled by a man who cried out, "What do you know about that, you little runt of a Welsh lawyer!" To which Lloyd George like a flash replied, "That fellow must be an Englishman, for in Wales we measure a man from his neck up!" True, the university must develop intellect. But that intellect must reside in a body and that body, to be effective as a servant of mankind, and even to serve itself fully, must have legs. Abraham Lincoln was once present when some friends were discussing how long a man's legs should be. When the question was referred to him, Abe Lincoln said, "Well, I've always thought a man's legs ought to be long enough to reach the ground!" Indulge yourself in all the high thinking you can but keep ever mindful of those about you who need your help. There must be teaching, research and service, and the greatest of these is *service*.

Yet the preparation and foundation for that service involve the broadest possible scientific research; and it is of this that I wish to speak a little more in detail.

RESEARCH

For more than a century the greater number of those researches, which have recast radically our understanding of nature and of human history, have modified largely the physical conditions of human existence and of personal health, and have made possible those inventions and commodities without which our vast modern populations could not so much as subsist, have been carried on by members of universities in university libraries and laboratories.

*Read before the Interstate Post-Graduate Assembly at Milwaukee, October, 1924.

The motto of Johns Hopkins is *Veritas Vos Liberabit*—"the truth shall make you free."

The University has always been an apostle of truth for the sake of truth—of the pursuit of new knowledge with new knowledge as its own reward, and yet in its practice of that principle many discoveries of very great practical importance have been made.

THE MEDICAL FIELD

Now the greatest field of service, in which the University as a discoverer of truth may apply it for the benefit of mankind, is the field of medicine.

Old as is the science of medicine, the last fifty years have seen a greater advance than in all the preceding period since the days of Hippocrates himself. Yet so much remains to be done that medical science itself is rapidly undergoing a great change. It is seeking to apply to life processes the fundamental principles of physics and chemistry. It is seeking in biology and genetics, the secret of life processes themselves. And subjected to such inquiry, life presents itself as an increasingly complex problem of physics and chemistry.

Growth, the assimilation of food and all the normal functions of the body, in so far as we have begun to understand them, are controlled by a most intricate system of chemical and physical reactions which take place in the laboratory of the body. When these reactions become abnormal their outward manifestations constitute the symptoms of disease.

Consequently our leading medical schools are endeavoring to make medicine a biological science by applying the methods of the fundamental sciences to the study of life. They realize that the physician, if he is to know how to restore health to the diseased body, or better still to prevent disease, must first know the laws governing the normal functions of the healthy body.

JOHNS HOPKINS

When Johns Hopkins left his money for the founding of the university which bears his name in his native city of Baltimore, he left an equal sum for the founding of the great hospital which also has made his name known throughout the world. In his mind there was clearly a fundamental connection between the two institutions; moreover, the first president of the university, Daniel Coit Gilman, was also the first director of the hospital. And when the university opened its doors in 1876,

it was for advanced students in six fields of research, the three fundamental natural sciences of physics, chemistry and biology being well represented under the leadership of Henry Augustus Rowland, Ira Remsen and Henry Newell Martin.

The unusual opportunities for research and the magnetic character of these leaders brought to the university as students such men as Wm. K. Brooks, W. T. Sedgwick, E. B. Wilson, Wm. H. Howell, M. M. Metcalf, Frederick S. Lee, and Thomas H. Morgan, in biology; H. N. Morse, H. N. Stokes, E. H. Keiser, Geo. M. Richardson, C. H. Herty and E. P. Kohler in chemistry; E. H. Hall, E. L. Nichols, A. L. Kimball, Henry Crew, E. B. Rosa and General Geo. O. Squier in physics.

It was with such preliminary emphasis on these three branches of natural sciences, and in such an atmosphere of research and of high educational standards that the Medical School was opened in 1893 as an integral part of the University and the active nexus between the University and the Hospital.

From the start this Medical School has required its teachers in the pre-clinical subjects to devote their full time, its students to have the bachelor's degree before admission and has required complete preparation in the basic sciences of chemistry, physics and biology, thus early emphasizing the importance of these fundamental subjects to the further progress of medicine.

For a number of years special courses in each of these subjects had to be provided for the benefit of students coming to our Medical School from other institutions, before the colleges realized the necessity for a thorough grounding in physics, chemistry and biology as preliminary to the successful study of modern medicine.

It is, I believe, generally admitted that Johns Hopkins has contributed to the development of scientific medicine in this country, and also, I believe, to the development of the modern method of investigation and advanced instruction in physics, chemistry and biology. What I wish just now to emphasize is the fundamental relation between the two. The achievements in medicine have been largely due to the achievements in these other fields.

To make this clearer, a few concrete examples may be cited and should suffice:

Remsen, working in his chemistry laboratory,

discovers a new compound, a sulphonephthalein, derived from coal tar acids. So far as he is concerned that is the end of it. He turns at once to another research. But Dr. Abel, the head of the Department of Pharmacology in the Medical School, takes this compound and subjects it to further research, finding that it serves as a useful guide to the condition of the kidneys. Then, in the hospital, the urologists adopt it to determine the ability of certain patients to withstand the shock of operation. Curiously enough one of the first patients on whom it is used is Remsen himself. Surely not a vicious circle, but a circle of life!

ANOTHER CONTRIBUTION

Roentgen, studying the discharge of electricity through gases purely from the standpoint of the physicist discovered X-rays. The use of these rays in the diagnosis of surgical cases immediately followed and also a little later their use as a curative agent. Yet, owing to an insufficient appreciation by the physician of some of the conditions, quite a few patients and also workers suffered severe injuries. Further physical research showed what the necessary precautions were and led to a perfection of apparatus and of technique.

Let us follow up just one case in which the use of X-rays as a diagnostic indicator formed only the first step in a series of discoveries the end of which is not yet.

By means of Roentgen photographs the peculiar conditions of the bones of the head and of the ribs were revealed in the case of rickets in children.

Howland at Johns Hopkins, by direct analysis showed this beaded condition of the bones to be due to a deficiency of lime or of phosphate in the blood.

Huldschinsky effected cures by exposure of patients to the radiation from a quartz lamp with mercury vapor as the radiant, especially strong in the ultra violet; while Hess attained cures using ordinary sunlight.

McCollum and Park at Johns Hopkins working on rats caused rickets through a deficiency of calcium or of phosphate in their diet and definitely cured the same with sunlight. Then it was demonstrated that the portion of the solar spectrum really effective was only the ultra-violet in the neighborhood of 300 millimicrons or say all below 320.

Pfund, working in the physics laboratory at Johns Hopkins on a problem connected with the darkening of certain paint-pigments when exposed to sunlight, is thereby able to suggest to Dr. Janet Howell Clarke at our School of Hygiene, herself a physicist, (the daughter of our Dr. Wm. H. Howell, the physiologist,) a simple method for measuring the intensity and dosage of the ultra-violet radiation to be used in curing rickets by the use of an exposure meter in which a fresh area of paint-pigment known as lithopone is rapidly darkened by the rays from about 320 down, till it matches a standard tint.

But suddenly the plot thickens! For it is found that, by feeding cod-liver oil the same good results are obtained as with ultra-violet rays!

Then from Wisconsin comes the report that some ordinary foods subjected to radiation before feeding produce the same effect as cod-liver oil. Just how the cod-liver oil or the radiated food produce their effect is not yet clear, but probably the effect of ultra-violet rays on calcium or phosphorus salts already present in the intestinal tract is to render them available for absorption into the blood whereas without such excitation they are not in condition for assimilation.

The complete elucidation of these curious phenomena involves the action of semi-permeable membranes, as well as the photo-electric and physiological effects of radiation on the colloidal conditions of body fluids, body tissues and cells. It even seems possible that some of the vitamin principles that have been already recognized are really electrical conditions and not material substances. And it is clear that the whole field of the physiological effects of radiation needs exhaustive study. Naturally, that in turn also means the further study of radiation by the physicist himself.

SPECIAL NEED EXISTS

The first step in this general direction would be the establishment of an adequate department of Biophysics, to study the bearing of physical phenomena on the problems of medicine. There is need of a special department to study the therapeutic value of radium emanations. Little is known also of the value of light. Medical science is just beginning to realize that light, like coal tar, is, so to speak, a "crude product." It is made up of a multitude of wave lengths, some beneficial in their action, like the ultraviolet, some harmful, like

the infra-red. There is need that the physicists do much the same with light, from the medical standpoint, as the chemists have done with coal tar, which has been a source of so many weapons against disease.

The new department would also study the physical action of water, for little is known of water therapy, the effect of various baths on the cells of the human body, and the physical action of solutions in promoting the circulation of the vital body fluids. This opens up an entirely new field.

If, for instance, the Medical School would attract to its faculty a leading physicist, who, with his assistants, might devote himself to the study of surface tension, osmosis, radio-activity, the electrical forces concerned in colloidal suspension and the activities of X-rays, ultraviolet rays and various other forms of radiation, there is no doubt that the vision of the students would be broadened and the fruitfulness of medical research increased.

Like the study of diseases of the eye, the study of diseases of the ear, nose and throat seem inadequately provided for in American medical schools. So little is known of the underlying causes of deafness that the General Education Board, the Western Electric Company and other interested individuals have provided a fund with which to begin fundamental researches dealing with the basic anatomy of the organs of hearing and the effect on them of other diseases. Dr. Samuel J. Crowe has these researches under his direction at Johns Hopkins.

Intense radiations from furnaces have long been known to be injurious to the human eye and even to cause cataracts with resulting blindness to workmen.

Dr. Pfund, a Johns Hopkins physicist, has produced gold screens by depositing a thin layer of gold on yellowish glass, which allow the visible radiation to pass through, but shut off both the ultra-violet and infra-red rays that cause the trouble. These screens have been made into goggles which protect the eyes of workmen around furnaces, and are also used in motion picture technique. This might be called "preventive medico-physics."

A question of peculiar interest to man as a "worker," i. e., as an "engine" or "prime-mover," is the problem of the conversion of the fuel ele-

ments in our food into work, essentially a problem in physics.

A. V. Hill, trained as a physicist at Cambridge University and adding his physics to physiology, has recently applied in a masterly manner the laws of physics in great detail to muscular activity. With Gasser of Saint Louis, formerly of Johns Hopkins, he had shown that a muscle acts precisely like an elastic body which also possesses high viscosity. He thus explains the cross striations of muscular fibre. In certain cases he has demonstrated the energy relations of muscular activity, showing a sort of hysteresis, and he has pointed out the importance of the speed of the reaction. For instance, he has shown that there is a certain definite critical speed at which a given action should take place to secure the maximum work in return for the expenditure of energy through muscular activity. In ascending a given flight of stairs there is for a given individual a definite or critical speed at which the expenditure of energy is a minimum. To ascend more slowly or faster than this is to waste effort. In one case investigated this critical speed was 78 steps in 100 seconds.

Similarly, the factor of speed is being more and more recognized as an important one in the chemical reactions taking place in the body as well as in the muscular activities when doing external work.

The study of chemical accelerators, the enzymes, and the study of colloidal actions which are so largely involved in the functioning of nerve and cell, muscle and organ—present such complex problems that the combined labors of the chemist, the physicist and the biologist as well as of the pharmacologist and the pathologist are all needed for their solution.

COLLOIDS

All the tissues, muscles, and fluids of the body seem to be colloidal suspensions. Hence the study of colloidal chemistry is of vital importance for the development of medicine as a science.

The sensitiveness of the kidneys to acidity, the coagulation of the blood, the stiffness of muscles are all instances of the disturbance by very slight changes of the stability of a colloidal system vital to health.

Surface tension, electrical changes and conditions of ionization, response to radiation, the behavior of semi-permeable membranes—all these are

factors to be studied. They are fundamentally physical-chemical problems.

The need for collaboration is clearly indicated.

Ether was known to chemists for over 500 years before its value as an anaesthetic was appreciated.

Magnesium sulphate was known to chemists for 200 years before it was learned what great relief it gave in lockjaw, burns and strychnine poisoning.

Twenty-three years elapsed between the discovery of amyl-nitrite by the chemists and the discovery of its medicinal properties by the physician; during this interval tens of thousands suffered the tortures of angina pectoris needlessly just because the chemists, the pharmacologists and the physicians were not working together.

For, just as the pharmacologist is the armorer of the physician providing him with new and better weapons in his fight against disease, so the chemist is in turn the elder brother of the pharmacologist. The ultimate aim of their collaboration is to make the physician as sure of the action of those substances which he puts into the human body as is the chemist when he mixes chemicals in a test tube.

One of the most important fields in which the pharmacologist must rely thus upon chemistry is the isolation, study and preparation of the pure principles of our organic secretions.

One example will suffice to illustrate. Schafer and Oliver noted the presence of a vaso-constrictor principle in the suprarenal glands. Abel of Johns Hopkins isolated it in the form of a derivative and prepared a number of salts of this derivative. Takemine precipitated the pure principle of adrenalin by means of ammonia which Abel also had used. The chemical structure was determined and it is now prepared synthetically. Among its numerous and now well known advantages we may note that it reduces the toxic effects of a local anaesthetic, relieves the spasms of acute asthma, checks hemorrhage of a capillary or small arterial character; sustains the heart in operative cases and in pneumonia.

THE ANTITOXINS

Perhaps the greatest immediate problems of chemo-medical research are those involving the isolation of the pure principles of the antitoxins, bacterial vaccines and serums now used so widely in the cure or prevention of infectious diseases.

What indeed is disease? We know that germs

are active in bringing about certain pathological conditions but the knowledge of how they are able to begin their work is still shrouded in much uncertainty. Everyone is constantly breathing the bacilli of tuberculosis and a dozen other diseases, but all of us are not sick. What enables the cells in the bodies of some to resist the attack of disease germs? What gives them ingress in others? What chemical and physical changes take place to make the same individual at times susceptible and at times immune?

The detection and destruction of the cholera bacillus, while involving considerable science, really involved only one purely biological principle, important but not profound—that some bacteria kill some men. The really scientific parts of the process are the optical and chemical methods involved in the magnification, staining and killing of the bacilli.

Yet the immunization to typhoid apparently involves biological principles which are neither simple nor completely understood.

CHEMISTRY AND BIOLOGY

Great good would result from the appointment of chemists and biologists within the medical faculty. Were outstanding men in these sciences secured, both advanced students and instructors from other departments of the school would have the opportunity of working under conditions which could not fail to advance medical knowledge. At present the Department of Physiological Chemistry at Johns Hopkins, for instance, is primarily concerned with the metabolism of the body; but such investigators as are contemplated would deal with the fundamental chemical phenomena that apply to almost every problem of medical science.

The remarkable power of the blood to maintain its normal alkalinity has been elucidated completely by Henderson, the chemist of Harvard, on simple principles of physical chemistry, showing the existence of chemical "buffers."

Dr. George Crile of Cleveland has recently brought forward proof in support of the theory that life itself is a phenomenon which is primarily based on the electrical properties of the cells as the smallest division of living matter.

While the microscope, with all its marvelous improvements, can go no further than the cell or its divisions, chemistry can go much farther. Cell-secretion, cell respiration and cell nutrition are

clearly only different aspects of the same whirl of molecular activity. Physical-chemistry will carry its analysis down to the molecules and atoms, even to the nuclei which constitute the fundamental electric charges.

Positive and far-reaching results in almost every branch of medicine will accrue from the concerted attack upon its problems of expert chemists, expert physicists and expert biologists and medical men organized on the basis of this fundamental physical-chemical point of view.

In turn the chemist or the physicist needs the co-operative effort of the medical investigator—the pathologist, bacteriologist, internist, for only by such cooperation can the vital problems of medicine be brought home to the consciousness of the experts in the fundamental sciences.

It must be clearly borne in mind that these specialists should be primarily physicists, or chemists or biologists—not medical men with some training in one or the other of these fields. Moreover they should not have been trained with any special or narrow field of application of their science in view. What is needed is not technologists but scientists with a broad fundamental grasp of the principles of physics, or of chemistry or of biology. Only those thus thoroughly trained will be able to tackle with maximum success the intricate problems involved in the more accurate determination of the physical and chemical aspects of man's body and its life.

PASTEUR—AN EXAMPLE

The life work of Pasteur is, of course, the best known and also one of the most illuminating examples of the inter-relation of physics, chemistry, bacteriology and medicine. Such also was his personal character as well as the character of his work that by popular vote he was declared the greatest of Frenchmen. Certainly, his service to humanity looms larger with every addition to our knowledge of infectious diseases.

It is not necessary, I take it, to remind you of the details of Pasteur's work; but merely to recall its broad lines in order to emphasize the sequence and interrelations between the sciences involved in his achievement which has been of such untold benefit to humanity.

Studying the crystals of racemic acid, intent only on the advancement of knowledge, he discovered a dissymmetry between two groups of crystals

which were chemically identical. The two types of crystals in solution produced opposite rotations in a beam of polarized light. Thus the constitution of racemic acid formerly so mysterious was elucidated and a new class of isomeric substances discovered. A distinctly unforeseen route had been opened in science which led twenty years later to the development of stereo-chemistry as a distinct field.

Pasteur succeeded in producing racemic acid synthetically. He observed that one class of the crystals ferments while the other remains inert. He showed that fermentation, which formerly had been regarded by Liebig and others as a purely chemical phenomenon, is due to the presence of a host of bacteria, which eagerly devour one class of crystals and ignore the other. Here was begun the study of the great putrefactive changes and of the part played by bacteria in disease, which made the world Pasteur's debtor. Cleanliness in modern surgery, the cure of rabies, the germ theory of infection, all go back to those simple experiments in pure science—first physical, then chemical and then biological.

It has been estimated that the discoveries of Pasteur, merely in their economic value, to say nothing of their humanitarian results, more than offset the material loss caused by the Franco-Prussian War of 1870. Thus the works of a single scientist of genius, trained in a university atmosphere, created more wealth than the armies destroyed.

What a privilege for the student even of today to follow in his footsteps; to feel the stimulus of his example; to realize in some measure the same high sense of devotion to truth, and of obligation to humanity.

FRIENDS OF MEDICAL PROGRESS

The Friends of Medical Progress, a National Lay Organization incorporated in Boston, Massachusetts, in 1923, for the purpose of disseminating medical knowledge among the general public, is contemplating for the year 1925 a greatly extended program of service.

Office headquarters, formerly located in Boston, have moved to New York City, 370 Seventh Avenue, where co-operation with the more important educational and health organizations will be facilitated. With the change in location also comes a change in name. The society will hereafter be called the American Association for Medical Progress.

Mr. Benjamin C. Gruenberg, well known to workers in the fields of education and public health, will take over the active management of the organization.

In the past year approximately 72,000 publications dealing with various phases of animal experimentation, vaccination, etc., have been distributed. An increasing number of similar publications is planned for the current year. A lecture program will be developed and attention will be focused on the formation of Branch organizations throughout the country.

Some Observations on the Colloidal Gold Reaction in Syphilis of the Central Nervous System

By MERLE Q. HOWARD, M.D.

Wauwatosa

It is now twelve years since Lange¹ published his paper on the colloidal gold reaction. Since that time a number of papers by various authors have appeared. The value of the test has been established but its routine use is not universal. The test is simple and the end reaction is easy to read. The preparation of the reagent is sometimes attended with difficulties. Indeed the principal cause for the non use of the test by many is their inability to prepare the colloidal gold. The test has been condemned frequently for no other reason and efforts have been made to substitute colloidal suspensions of mastic and benzoin for the gold. The writer cannot subscribe to these latter suspensions. Good colloidal gold can be made by skilled or even unskilled laboratory workers and the condemnation of the test on the grounds of difficult technique is a reflection on the worker and not on the test. The technical details will not be entered into here. For a complete review of them the reader is referred to a paper by Weston.²

It has been shown by Weston³ and Felton⁴ that the gold reaction depends upon the presence of a globulin in the spinal fluid and this globulin must be in excess of the albumin. In other words albumin protects and globulin precipitates the gold from colloidal suspension. The test is an exquisitely delicate one for globulin and the reaction occurs with much less of the substance than is required for the usual globulin tests.

It has been fairly well established that a reaction in the paretic or leptic zone invariably means syphilis of the nervous system. Like all other tests, there is a certain margin of error. No test will always give data that exactly fits the clinical side in every case. This is true of the gold reaction. In multiple sclerosis, and Frambesia (yaws) a reaction in the paretic zone occurs frequently. But the clinical signs and other laboratory findings will usually settle the diagnosis.

There are almost no data available that will establish the earliest time at which the gold test will become positive after an infection. A number of cases have been reported in which the spinal fluid was examined during the early secondaries. In practically all of these when the colloidal gold

reaction was employed, the results agreed with the Wassermann reaction. The real value of the test however is not in acute syphilis, for we have the unmistakable clinical evidence to guide us at this time and the Wassermann reaction, but in suspected involvement of the central nervous system in latent syphilis. The Wassermann reaction with the blood serum in many cases of neurosyphilis is persistently negative. Many such cases run a typical course of paresis and at no time after the development of mental symptoms is the blood Wassermann positive. In obscure mental cases examination of the blood and spinal fluid will sometimes show every reaction negative except the gold curve which will be in the paretic zone. How is this to be interpreted? My own view is that this curve does not prove syphilis but it most strongly suggests it. Persistent observation and repeated examinations of the blood and spinal fluid must be made in these cases. Thus Weston⁵ reports a case in which four examinations of the blood and fluid extending over a period of eighteen months showed gold curves in the paretic zone but negative Wassermann reactions. A fifth examination made nearly two years after the first showed a positive Wassermann reaction with the fluid. Clinically a positive diagnosis was never made but it rested between paresis and alcoholic dementia. At autopsy it was found to be a case of paresis.

USES OF TEST

In nearly every instance, however, the gold curve runs parallel with the Wassermann reaction. It has not been proved positively that the gold reaction appears before the Wassermann becomes positive but such evidence as we have leads one to believe that the gold reaction must be positive first.

Another important use of this test is in following the effect of treatment. It is not always difficult to obtain negative Wassermann reactions with spinal fluid in neurosyphilis but keeping the reaction negative is another matter. The fact that treatment if persisted in will be followed by a negative Wassermann reaction with the spinal fluid does not mean that the reaction will remain negative even for a week. The gold reaction is not so easily affected by treatment. It is the last reaction

Date	Patient E. D.			Coll. gold	B	Patient C. T.			Coll. gold	B	Patient D. L.			Coll. gold
	B*	F	G			F	G	F			G			
3-6-22	+	+	+	5555500000	+	+	+	4433210000	+	+	+	+	5555500000	
3-14-22	+	—	—	5555500000	+	+	+	5555500000	+	+	+	+	5555500000	
3-21-22	+	+	+	5550000000	+	+	+	4422400000	+	+	+	+	5555500000	
3-27-22	+—	+	+	2241100000	—	—	—	5532100000	+	+	+	+	5554100000	
4-3-22	+	+	—	1121100000	—	—	—	5555500000	+	+	+	+	5555532000	
4-12-22	+	—	+	5555500000	—	—	—	1122200000	+—	+	+	+	5555000000	
4-17-22	+—	+	—	0003000000	—	—	—	0000000000	+	+	+	+	5555500000	
4-25-22	+	—	—	1133300000	—	—	—	1122300000	+	+	+	+	5555500000	
5-9-22	—	—	—	2233300000	—	—	—	2233300000	+	+	+	+	5555500000	
6-5-22	—	—	—	0000000000	—	—	—	1123300000	+	+	+	+	5555500000	

*In this table, B represents blood,
F represents spinal fluid,
G represents globulin.

to become negative. Long after the Wassermann becomes negative and remains so the gold reaction may remain positive. Only after prolonged and vigorous treatment does this reaction become negative and persistently remain so. It is therefore a better index of the effect of treatment than the Wassermann reaction.

In the accompanying table I have placed three cases selected from the last hundred we have had under treatment.

Some points made in the paper are illustrated by these cases. In case D. L. treatment had no effect whatever on any of the reactions. All remained positive.

In case E. D. the Wassermann reaction with the blood slowly became negative. The same reaction with the fluid became negative a little earlier and the gold became negative at a still later date.

In the case of C. T. both the blood and spinal

fluid Wassermann reaction became negative promptly and remained so but the gold reaction did not become negative until later and then remained so.

SUMMARY

The colloidal gold reaction is a very delicate test for the determination of excess of globulin over albumin in the spinal fluid. Clinically it is of great value in detecting early involvement of the central nervous system and furnishes us with more accurate data concerning the effect of treatment. There is no good reason for its not being universally used.

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The Relation of Ureteral Strictures to Renal Calculi*

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The frequency with which ureteral strictures occur has been emphasized repeatedly by Hunner for many years. He has shown that ureteral strictures produce definite diagnostic signs which have often been mistaken for appendicitis or disease of the pelvic organs, and that these symptoms can be relieved by thorough dilatation of the strictures. Every year more investigators are trying his methods of treatment with very satisfactory results, and thus many useless abdominal operations have been prevented. From my own observations I am convinced that ureteral strictures play such an important part in the formation of calculi in the upper urinary tract that a surgeon is not justified in operating on a patient merely upon roentgenographic evidence of stone without a thorough pre-

liminary investigation of the ureters. Before discussing the influence of ureteral strictures to the formation of renal calculi I shall briefly review some of the known facts about calculi.

Calculi may be classified as follows:

1. Those found in acid urine:
 - Uric Acid
 - Urates
 - Sodium-Potassium
 - Calcium-Magnesium
 - Calcium Oxalate
 - Zanthin (Very rare)
 - Cystin (Very rare)
2. Those found in Alkaline urine:
 - Phosphatic
 - Calcium
 - Ammonium
 - Magnesium
 - Ammonium Urate

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It has been noted by many investigators that a pure stone of any of these salts is rarely found. Practically all of the calculi are combinations of two or more different urinary crystals, which indicates that there must be several factors that produce a calculus. When returning to the etiology of stone formation we find many theories, but in spite of a tremendous amount of investigation we are still uncertain as to the real causative factors. This being the case, we must consider any influence which may tend to produce stone. These facts seem to be established. Climate, geographical distribution, diet, race, and sex play an unimportant role. Heredity does not account for them. Grave metabolic disturbances, such as gout which is associated with a marked uric acid diathesis, are not commonly associated with calculi.

CAUSES

Posner¹ has noticed an increase in stone cases among the poorer classes of people due to undernourishment. Some type of metabolic disturbance may be the basis for their occurrence. Recent investigations have shown that calculi are much more frequent in childhood than was formerly believed to be true. This can be explained by the marked increase in the excretion of uric acid during the first few days of life, which is so commonly associated with uric acid infarcts of the kidney that it is termed physiological by many investigators. Some of these uric acid stones of childhood may persist to form the calculi of adult life. According to Keyser² "the human being puts out on an average of 2 to 4 grams daily of material which yields precipitates practically insoluble in water." In other words, the crystalline substances in the urine are in a supersaturated state as compared with the water. Physiochemistry and biochemistry indicate that these substances are held in solution in the urine through the action of certain colloids which also act as defensive measures against calculus formation. When there is a disturbance of this normal relationship in the action of the protective colloids there is a precipitation of the crystals with the formation of a calculus. Posner believes some albuminous material such as a blood clot following trauma may initiate this change and form the nucleus of the calculus. He is of the opinion that this must be associated with stagnation and concentration.

Rosenow and Meisser³ have recently shown that

calculi can be produced experimentally by infecting devitalized teeth in dogs with streptococci, indicating that an infection with certain strains is an essential factor. Hunner,⁴ from his experience with 100 ureteral stricture cases, believes that strictures, being caused by distant foci of infection and producing stasis, play an important role in the formation of renal calculi. He⁵ is of the opinion that many calculi arise at the site of the ureteral stricture where there is a ureteritis, and frequently ulceration, and that some of these calculi migrate upward into the renal pelvis. I am not prepared to discuss whether or not calculi are produced at the site of the stricture or in the renal pelvis, but I am convinced that in ureteral strictures the essential conditions necessary for stone formation are present namely, stagnation, concentration, and infection. Ureteral strictures are probably all due to distant foci of infection, especially in the teeth, tonsils or accessory nasal sinuses. The same organisms that produce the stricture may initiate the calculus formation. The effect of stasis has been shown experimentally by Keyser² while investigating the action of oxamid feeding in rabbits. He placed a rubber band around one ureter just tight enough to produce a ureteritis, and the subsequent edema causing slight obstruction. Stones were found in that kidney, and the other kidney was free. Some have argued against the role of stagnation on the grounds that calculi are not commonly found associated with hydro-nephrosis. We must recall, however, that in true hydro-nephrosis as pointed out by Hinman and Morrison, there are marked circulatory changes that form a vicious cycle, the lessened blood supply allowing more expansion of the kidney, and this in turn causing a decrease in the circulation and both resulting in a diminished functional activity, so that the factor of concentration is absent.

No one has explained the great number of recurrences that are seen after operation.

RECURRENCES

- Cabot and Crabtree,⁶ 1915—87 cases
 66 stone in kidney—49% recurred
 21 stone in ureter—29% recurred
 Barney,⁷ 1922
 70 cases of nephrotomy
 35 studied—40% recurred
 139 pyelotomies—32.8% recurred
 Braasch,⁸ 1924



Fig. 1, Case 1. Calculus in pelvis of right kidney.

1041 cases. 10.79% recurred

183 re-examined. 14.2% recurred

Cases fluoroscoped—less than 5% recurred

Lau, 1924

80 cases operated since 1920—10% recurred

While these statistics are incomplete this table indicates that recurrences are a serious problem. It is sometimes difficult to determine whether or not a stone was left at the time of the original operation, or whether possibly a broken fragment might form the nucleus of a new stone. If these cases are properly investigated, I feel that they will show ureteral strictures which remain untreated and leave the patient with the same essential con-



Fig. 2, Case 1. Recurrent stone in pelvis of right kidney.

ditions for calculus formation that he had previous to the operation. It is now quite firmly established, according to Kretschmer,⁹ that almost 32% of ureteral calculi can be removed without operation by thorough dilatation of the ureter. This in itself would indicate that a stricture has been dilated to allow the stone to pass. No one has reported an investigation of recurrence of calculi after this method of treatment.

In these cases that I am about to present I do not maintain that the stricture was the sole cause of the stone, but that as a result of the mechanical obstruction it aided in the formation of the calculus. A stricture of the ureter can be diagnosed by two means. First, by the wax bulb suggested



Fig. 3, Case 2. Bilateral renal calculi.

by Hunner, or second, by a ureterogram. In the first instance a large bulb must be used (sometimes as large as 5 mm. in diameter) to obtain characteristic hanging upon the withdrawal of the bulb. In the ureterogram, if a strictured area is shown with a definitely dilated ureter above it you are safe in diagnosing it as a stricture.

CASE I. Miss M. W.—No. 5864. Age 30.

First operation 1915. Pyelotomy for stone in pelvis of right kidney. (Fig. 1.) Easily removed. Convalescence satisfactory. Pain recurred. Four years later x-ray showed a second stone in same location. (Fig. 2.) Second pyelotomy 1919. Pain persisted. Wax bulb catheter showed a stricture of right ureter in lower third. This was dilated several times. All pain and discomfort

left her. X-ray taken 1½ years later. No shadows seen.

CASE II. Mrs. J. F.—No. 12510. Age 38.

Bilateral renal calculi. (Fig. 3.) When first examined the patient had a large hydronephrosis of right kidney that formed a mass large enough to be seen and felt. This disappeared spontaneously. Cystoscopic examination showed a stricture of both ureters with a severe infection of left side. The right side operated and the stone removed by nephrolithotomy. The stone was so friable that it was impossible to remove all the fragments, so a recurrence might have been expected in this case. The ureter was thoroughly dilated with wax bulb catheters several times following operation and the patient made a good recovery. One year later x-ray showed a recurrence of stone on right side. Patient would not submit to operation or treatment of left side.



Fig. 4, Case 3. Two calculi in cortex of right kidney.

CASE III. Miss T. W.—No. 18577. Age 25.

Two small stones in the right kidney. (Fig. 4.) One at either pole. Pyelogram and ureterogram (Fig. 5) show moderate hydronephrosis with stricture of ureter and dilated ureter above this point. These stones are so small that one might argue a ball-valve action causing the hydronephrosis, but this would not explain the dilated ureter, and the best evidence that this stricture was causing the damage is the total absence of symptoms following the dilatation. The stones were not removed for the removal would necessitate too much damage to renal structure. The patient is symptomatically well.

CASE IV. Mrs. H. C. R.—No. 14291. Age 42.

X-ray shows bilateral calculi, a large stone in the right kidney and a small one in the pelvis of the left kidney. (Fig. 6.) Ureterograms (Fig. 7) show a definite stricture of the ureter on either side. Thorough



Fig. 5, Case 3. Stricture of ureter, dilated ureter and hydronephrosis.

dilatation was performed by wax bulb before operation. The chart (Fig. 8) shows the remarkable effect this procedure had upon the blood chemistry. The right side operated on first. The left side one month later. Patient made an uneventful recovery from both operations and is free from pain.



Fig. 6, Case 4. Calculus in pelvis of right kidney and calculus in pelvis of left kidney with stricture of left ureter and hydronephrosis left.



Fig. 7, Case 4. Stricture of right ureter. Hydronephrosis right and calculus in left pelvis.

CASE V. Mrs. L. B.—No. 20710. Age 34.

X-ray (Fig. 9) showed a calculus in the pelvis of the right kidney. Ureterogram (Fig. 10) showed a definite stricture of the lower end of ureter with moderate dilatation above it.



Fig. 9, Case 5. Calculus in pelvis of right kidney.

erate dilatation above it. Operation, pyelolithotomy. One protective drain was inserted down to the kidney. There was no drainage at any time. The wound healed completely. Patient out of bed tenth day.

CONCLUSIONS

One should not form too strong opinions from

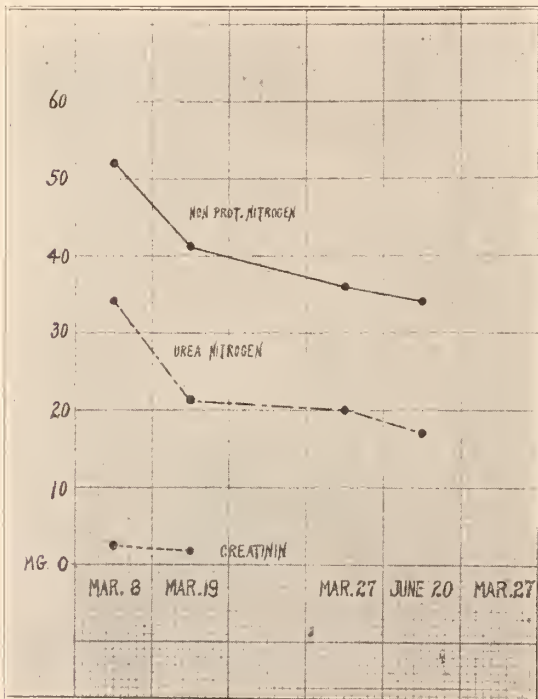


Fig. 8. Chart showing the decided drop in blood chemistry following dilations of ureter.



Fig. 10, Case 5. Stricture lower end of ureter with moderate dilatation of ureter above it.

the study of five cases, but they are sufficient to indicate that strictures of the ureter do occur in association with renal calculi, that thorough dilatation of the ureter prevents reformation of calculi. The literature indicates that calculus formation is initiated in the presence of stagnation, concentration, and infection, all three conditions being found in stricture, and the stricture of the ureter may play an important role. Being certain that there is no ureteral obstruction lessens the possibility of the formation of a urinary fistula. In view of these facts no one is justified in operating for calculi without knowledge of the condition of the ureter.

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Prophylactic Blood Transfusion as a Routine Measure in Poor Operative Risks*

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Blood transfusion is today a familiar procedure in every hospital, thanks to the work of Crile, Moss, Linderman, Lewisohn, Unger and many others, who have simplified and perfected the technic so that it is now a comparatively safe and most valuable therapeutic measure.

The procedure is also familiar to the laity due to the frequent exploitation by the daily press of such good news copy as the "heroism" displayed by a relative or friend in sacrificing their blood to save one dear to them.

But to some of the profession and to the lay mind certainly, blood transfusion is still regarded as a measure of resort in desperate cases only, such as severe anaemias and profound post operative shock from hemorrhage.

I wish to call attention to the great value of blood transfusion as a prophylactic preparatory measure in patients who are to undergo any severe or prolonged operation, where shock or considerable loss of blood may be anticipated, and also in patients who are to have minor operations involving blood loss and who have a lowered resistance, due to anaemia or other causes.

Gynecological patients more than any others are most likely to have an associated secondary anaemia of varying degree, due of course to the menorrhagias or metrorrhagias so frequently present in uterine or adnexal disease. Thus in the Woman's Hospital in New York, we perhaps see a larger proportion of patients with anaemia who have to undergo operation than is usual in a general hospital. The cases with fibroids, carcinoma uteri, idiopathic uterine bleeding, the incomplete abortions and ectopies are all most likely to have an associated secondary anaemia of varying degree. Many such cases are dangerous operative risks, yet until recently it has been customary to operate upon such patients, often with an haemoglobin of 50% or less, and a marked loss of erythrocytes, with an inevitable higher mortality rate than is necessary, although a blood transfusion may be done after the operation as a last resort when the grave condition of the patient is realized. Indeed, I am under the impression that today such is the usual practice in many of our hospitals.

Furthermore, our conception of the amount of blood lost in the course of an operation is in general very vague. This has been recently pointed

*Read before the Interstate Post-Graduate Assembly at Milwaukee, October, 1924.

out by Gatch and Little¹ of Indianapolis in a study they have made of this subject.

LOSS WITHOUT BAD EFFECTS

Our idea as to the amount of blood a healthy individual can lose without marked inconvenience is based on our observation of blood donors. In our experience 500 c.c. to 750 c.c. is the average amount of blood that can be taken without symptoms, and that over that limit distressing signs begin to occur. The giving up of 500 c.c. of blood by an ordinarily robust individual certainly calls for no "heroism," and our internes are frequently glad to earn some extra money in this way.

Laboratory experiments confirm these observations as it has been shown that animals can lose 25% by volume without bad effects. Gatch's and Little's observations approximate our own experience in this regard. Their method of determining the blood lost at operation was based on colorimetric measurements of the blood recovered by washing the gauze sponges used. Their results showed that the method was accurate within 5%.

A pan-hysterectomy for fibroids showed a loss of 304 c.c., a radical breast amputation in a vascular case showed a loss of 710 c.c., a nephrectomy showed 816 c.c. It is easy to see that the loss of such amounts during operation in a patient with an haemoglobin of say 50% and with less than 3,000,000 red cells, may seriously endanger the patient's life. Especially is this true when we consider that such a patient's resistance may be still further lowered by the added shock to the sympathetic system of a severe or prolonged abdominal operation. Likewise in extensive vaginal plastic operations, there is nearly always a continuous capillary oozing of blood, which amounts to a considerable loss in an operation requiring an hour or more for its completion, and which owing to its insidiousness, is frequently not fully appreciated by the operator.

Our experience at the Woman's Hospital in a considerable number of cases shows us that 500 c.c. of blood as a prophylactic preparation for operation in cases of secondary anaemia is sufficient in the majority of the patients to bring the blood condition up to safety limits. Occasionally a second, or even third transfusion may be necessary in very low blood states, but we find this unusual. Undoubtedly this is due to the stimulating effect

on the blood making organs that a transfusion produces as evidenced by the progressive improvement in the blood state that continues for some time after the transfusion.

This fact is fortunate as it makes the obtaining of donors much less difficult, if not more than 500 c.c. are taken, and with a donor available there is no excuse for not bringing our patient to the operating room with her resistance at the best possible state in order to withstand the ordeal to be undergone with the maximum of safety.

All that is necessary then is the ability to perform the transfusion. Thanks to the work of Lewisohn anyone with the knowledge of the simple technic of an intravenous infusion can give a blood transfusion by the citrate method which is familiar to you all.

USE OF DIRECT METHOD

At the Woman's Hospital we use the direct method, as we believe its advantages make it well worth while, although formerly the citrate method was used. The technic we employ is that of Unger,² which has proved very satisfactory in our hands. Our internes are all trained in the technic, and in the past two years no interne has graduated from the hospital who is not an expert in giving a direct transfusion, and in typing and matching the donor and recipient's blood.

I have recently reviewed the blood transfusions done at the Woman's Hospital during the past two years by the direct method, and I have also had a study made of the reactions in this series by two Senior Cornell students (Souter and Duryea) during their course at the hospital, which will be shortly published.

In spite of the perfected technic and the more accurate methods of typing, post-transfusion reactions occur in about 25% of cases, but fortunately the danger of gross incompatibilities may be said to be eliminated, and the reactions observed are usually not of a severe type, and are not sufficient to counteract the great therapeutic advantage of the transfusion. Still we cannot feel that the technic of blood transfusion is perfected until we can eliminate reactions in all cases. The cause of these reactions is still obscure and we cannot foretell when a reaction will or will not occur. As yet the problem has only been solved in its grosser aspects. The experimental work of Guthrie, Huck, and Pessel³ has shown that it is probably

necessary to modify the accepted classifications of the blood types of Jansky and Moss as they have demonstrated five isoagglutinins and isoagglutinogens in human blood. It is probable that the skill and dexterity of the operator in making a speedy transference of blood is a factor of considerable importance.

Our method is to use the Moss classification and the hanging drop method in the typing, and in addition the donor and recipient's bloods are directly matched in all cases for at least thirty minutes. We regard this last step as of the utmost importance in checking up on the compatibility. We also consider it very necessary that the donor's blood state be checked up at the time of the transfusion as it has occasionally happened that the donor has had an unsuspected secondary anaemia. This is especially so if a professional donor is being used, and will of course give a disappointing result. Many patients will be saved if every case is typed as a routine and a list of donors kept available for emergency use.

REACTIONS FROM LARGE AMOUNTS

Our study seems to show that transfusions of more than 500 c.c. of blood were followed with a higher percentage of reactions than with the smaller amounts, and repeated transfusions increased the percentage of reactions. We do not find that a transfusion increases the blood pressure to any marked extent, and therefore do not hesitate to give a pre-operative blood transfusion in cases of internal hemorrhage such as in ectopics, as we do not fear further bleeding from increased pressure. We have also observed that at the end of forty-eight hours the highest percentage of increase in haemoglobin and red cells occurred in those patients who had had reactions.

It is our practice in cases of profound operative shock to give immediately an intravenous infusion of 250-300 c.c. 6% gum acacia and 20% glucose solution at a rate of 4c.c. per minute at a temperature of 105° F. as advocated by Farrar,⁴ which will at once raise the blood pressure and hold it for several hours, thus combating the state of shock until the blood transfusion can be given. This we find is a safe and most valuable aid in an experience of many hundreds of such infusions.

We now have accurate records of 282 direct blood transfusions done on the gynecological service of the Woman's Hospital during the past

twenty-six months, which record the temperature, blood pressure, pulse, and complete blood examination before, directly after, two hours after, and forty-eight hours after the transfusion, in addition to the general facts concerning donor and recipient. Prior to that time, the records did not give complete details, the methods were variable and the technic was not standardized, and the transfusion was in general use only as a resort in desperate cases. Of these 282 transfusions, more than 50% were pre-operative prophylactic transfusions, done to bring the patient to the operation with her maximum of resistance, and in addition a considerable number were done at the time of the operation or immediately after as a prophylactic measure and not because of the precarious condition of the patient. And I wish to emphasize the point that in many of these cases, the patients were *not* in a state of marked secondary anaemia but showed a moderate loss only, as for example 65-70% haemoglobin and 3,000,000-3,500,000 red cells. That this preparatory treatment was well worth while, is unquestionable, our mortality and morbidity being reduced and the beneficial results, as shown by a much speedier and smoother convalescence, are acknowledged by the entire staff. I feel sure that the adoption of *routine* pre-operative blood transfusions in patients, whose resistance has been lowered, or whose blood examination shows a reduction under 75%, will reduce the operative mortality rate of any hospital as it has ours, which last year was 1.6% for all cases.

One of the great benefits that has come out of the Hospital Standardization movement, which was first stimulated by Codman, is that today we give careful pre-operative study to our patients. The light of the Staff Conference beats too strongly on our after results to allow of the rail-roading of the patient to operation when no emergency exists. Thus with a better knowledge of our patient's condition we have no excuse for not giving her the advantage of this valuable prophylactic measure, should her resistance and blood state require it.

SUMMARY

In conclusion I would emphasize the following:

1. That blood transfusion should be employed as a *routine* prophylactic measure before operation much more frequently than is the present practice, especially in gynecological cases.

2. That every interne on graduation from a hospital should be competent to make the necessary blood typing and blood matching technic, and to perform a blood transfusion, preferably by the direct method. The blood examination is often necessary at night or on holidays when the laboratory force is not available. This implies definite instruction and the skill which comes with practice.

3. That 500 c.c. of blood is sufficient in a large proportion of cases for a prophylactic transfusion, and thus this amount is not sufficient to cause the donor distress.

4. That the amount of blood lost in many gynecological operations is not always appreciated by the operator and is a factor that should be considered where patients have a lowered blood state.

5. That while post-transfusion reactions occur in about 25% of cases they are usually not of a serious type provided that the donor's and recipient's blood have been directly matched, and that they do not appear to mitigate the benefits of the transfusion.

6. That if this procedure is more generally adopted, it will result in an appreciable improvement in our mortality and morbidity statistics.

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A Micro-Folin-Wu Method of Quantitative Blood Sugar Estimation, Using 0.1 C.C. of Blood*

By T. L. BYRD, M.D.
Milwaukee

The present day methods, available for collecting blood specimens, for sugar determinations, are not applicable to all patients, and any suggestion of improvement, over methods now in use, will be welcomed by physician and patient, where simplicity and accuracy are the ultimate ends.

It is obvious to all medical practitioners that a simple, accurate micro-method of quantitative blood sugar estimation is needed; one which requires a minimum quantity of blood, that can be obtained from finger or ear by a prick of a pin, under aseptic precaution; one which eliminates the fear, pain, and danger of a venipuncture, and saves time and effort for the operator; a method applicable to infants, small children, and obese individuals, from whom it is almost an impossibility to obtain blood for analyses, for reasons well known. With the unlimited use of insulin, which requires repeated blood sugar estimations at frequent intervals, a method with these advantages is necessary.

Within the past few years, several attempts have been made, and micro-modifications of the Folin-Wu Method have been devised and published by Pollock & McElroy,¹ Haden,² Baum & Isaacson,³ Kramer-Gillman,⁴ Randler & Griggs,⁵ and a num-

ber of Micro Lewis Benedict methods. All micro methods heretofore described are modifications of the original Folin-Wu Method, and necessitate variations in technique, which render them impracticable from a standpoint of simplicity and accuracy, for practical routine use.

The Folin-Wu Method of analysis is one of the best now in use. In the technique, mixing 1 volume of blood and 7 volumes of distilled water, complete hemolysis occurs; 0.1 c.c. of blood, plus 0.7 c.c. of distilled water plus 0.1 c.c. of 10% Sod. Tungstate plus 0.1 c.c. of 2/3 normal Sulphuric Acid, precipitated, and centrifugated at high speed for 5-10 minutes, yields 0.5 to 0.7 c.c. of clear blood filtrate. Analysis of 0.5 c.c. and 2 c.c. of blood filtrate, under similar conditions, using solutions in proportion, will give the same end results.

Evidently a device for collecting, measuring, and diluting 0.1 c.c. of blood, applicable to all patients, is needed to perfect a micro method of blood sugar estimation. The idea was conceived, of a blood diluting pipette, graduated at 0.1 c.c. and 0.8 c.c. respectively, with 2 chambers, the first having a capillary intake expanding into a fusiform shape of 0.1 c.c. capacity for obtaining and measuring the blood. The second being 0.7 c.c. capacity for diluting, mixing, and hemolyzing,

*Presented at the 78th Annual Meeting, State Medical Society of Wisconsin, Green Bay, August 20-22, 1924.

TABLE I. Analyses of 22 specimens of blood of non-diabetic patients by the original and the Micro-Folin-Wu methods of blood sugar estimation.

	Original Folin-Wu		Author's Micro-Folin-Wu Method	
	Method Using 2 c.c. of Blood, obtained by Venipuncture.		Using 0.1 c.c. of blood, obtained with blood diluting pipette.	
1. Mrs. I. R.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
2. Mrs. T. J.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
3. Mrs. E. M.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
4. Mr. O. R. T.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
5. Mrs. H. M.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
6. Mrs. J. H. M.	111	mg. per 100 c.c. of blood.	111	mg. per 100 c.c. of blood.
7. Miss I. F.	111	mg. per 100 c.c. of blood.	111	mg. per 100 c.c. of blood.
8. Mrs. W. B. B.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
9. Mrs. P. T. S.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
10. Mr. Wm. J.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
11. Mrs. B. B.	90.9	mg. per 100 c.c. of blood.	90.9	mg. per 100 c.c. of blood.
12. Mrs. K. Z.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
13. Mrs. K. J.	90.9	mg. per 100 c.c. of blood.	90.9	mg. per 100 c.c. of blood.
14. Mrs. A. C.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
15. Mrs. S. M.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
16. Mr. F. P. G.	83.3	mg. per 100 c.c. of blood.	83.3	mg. per 100 c.c. of blood.
17. Mrs. M. S.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
18. Mrs. K. H.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
19. Mrs. P. C. M.	100	mg. per 100 c.c. of blood.	100	mg. per 100 c.c. of blood.
20. Mr. J. L. Mc.	90.9	mg. per 100 c.c. of blood.	90.9	mg. per 100 c.c. of blood.
21. Mrs. M. B.	111	mg. per 100 c.c. of blood.	111	mg. per 100 c.c. of blood.
22. Mrs. K. S.	111	mg. per 100 c.c. of blood.	111	mg. per 100 c.c. of blood.

with a constriction of the bore at each graduation thus constructed, to prevent the blood from flowing out, in case the operator has to pause to express more blood from the bleeding point, to insure accurate measurements, and can be held between the finger and thumb for mixing. The pipette is supplied with a detachable rubber tube and mouth-piece, and used in the same manner in obtaining and diluting blood as one for blood counting. This pipette solves the problem of obtaining blood from patients in small quantity. It is applicable to all patients, including infants, small children, and obese individuals. To those physicians in general practice, who have to collect blood and transport to a laboratory, this instrument will be very useful, as a rubber band placed over the ends of the pipette after the blood is drawn and diluted, will enable it to be carried any distance without loss, it will keep in this manner 9-12 hours, in case it is necessary to send by mail, one can dilute with 1-400 formaldehyd solution, instead of distilled water, which will preserve the blood for one week or more, at incubator (37.5 C.), or room temperature, without altering the sugar content. The Folin sugar tubes were reduced to $\frac{1}{4}$ size, and other apparatus needed was supplied, thus minimizing, and not modifying, the original technique in any single

detail. A preliminary report with a drawing of the apparatus needed for the Micro-Folin-Wu Method, was published in the A. M. A., Aug. 16, 1924.

Analyses were made on 86 specimens of blood under similar conditions, by the original and the Micro-Folin-Wu Method, without a single discrepancy. The following tables will give the results obtained.

The data obtained from the sugar tolerance test are very valuable in cases of mild diabetes, renal diabetes, obesity, and endocrine dysfunction. It is seldom done because it subjects the patient to several venipunctures at $\frac{1}{2}$ and 1 hour intervals. This micro method removes every obstacle. Six tests were done using 6 specimens each, making a total of 36 specimens. The following illustration will give the results obtained.

AUTHOR'S TECHNIQUE

A. Method of Obtaining Blood from Patient.

1. Rinse special blood diluting pipette, with distilled water, alcohol, and ether, draw Potassium Oxalate solution (about 5 per cent) to just above the 0.1 c.c. mark (expell the excess) to prevent the blood from adhering to the sides of the lower chamber of the pipette. (Where a number of bloods are to be taken with a single pipette, wash-

TABLE II. Analyses of 28 specimens of blood of diabetic patients by original and the Micro-Folin-Wu Method of blood sugar estimation.

	Original Folin-Wu Method Using 2 c.c. of blood obtained by Venipuncture.		Author's Micro-Folin-Wu Method Using 0.1 c.c. of blood, obtained with blood diluting pipette.	
	(a)	(b)	(a)	(b)
1. Mr. J. R. F.	200		200	
2. Mr. J. R. F.	153.8		153.8	
3. Mr. J. T. M.	333.3		333.3	
4. Mr. J. T. M.	500		500	
5. Mrs. T. A. O.	181.8		181.8	
6. Mrs. McK.	133.3		133.3	
7. Mrs. P. A.	200		200	
8. Mrs. P. A.	142.8		142.8	
9. Mrs. S. V. H.	125		125	
10. Miss M. D.	333.3		333.3	
11. Mr. M. M.	142.8		142.8	
12. Mrs. A. K.	400		400	
13. Mrs. A. K.	200		200	
14. Mr. G. B.	166.6		166.6	
15. Mr. L. P. K.	125		125	
16. Mrs. E. J.	142.8		142.8	
17. Mrs. S. J.	333.3		333.3	
18. Mr. J. E. P.	181.8		181.8	
19. Mr. H. F. D.	500		500	
20. Mr. F. R. F.	125		125	
21. Mr. T. A. C.	125		125	
22. Mrs. A. O. B.	142.8		142.8	
23. Miss H. A.	125		125	
24. Miss L. B.	125		125	
25. Mrs. C. P.	250		250	
26. Miss R. B.	250		250	
27. Miss E. S.	222.2		222.2	
28. Mrs. S. J.	200		200	

ing with distilled water, and the Pot. Oxalate solution will suffice as distilled water is the diluting fluid.)

- Clean finger tip or ear with alcohol or iodine, prick with pin point or lancet, cleaned with same drug, and from bleeding point, by means of blood diluting pipette, draw blood to 0.1 c.c. mark, wipe tip with a cloth or cotton, then emerse in distilled water and draw to 0.8 c.c. mark, shake well, complete hemolysis results.

B. Precipitation of Blood.

- Transfer contents of pipette, (1 vol. of blood plus 7 vol. of distilled water,) to a pyrex centrifuge tube.
- Add 0.1 c.c. (1 vol.) of 10% Sodium Tungstate solution, stir with glass rod.
- Add 0.1 c.c. (1 vol.) of 2/3 normal Sulphuric acid solution, stir with glass rod, thus precipitated let stand 10 to 20 min.

C. Centrifugate at high speed 5-10 min., yields 0.5-0.7 c.c. of clear filtrate.

D. Methods of Sugar Estimation.

- Place 0.5 c.c. of blood filtrate in a mini-mixed Folin sugar tube, graduated at 1 c.c. bulb and 6¼ c.c. total measurement.
- Place 0.5 c.c. of sugar standard solution containing 0.2 mg. and 0.4 mg. per 2 c.c. respectively in two other similar tubes.
- Add 0.5 c.c. of alkaline copper solution to each tube.
- Place in a water bath and boil for 6 minutes.
- Transfer to cold water bath for 2-3 minutes.
- Add 0.5 c.c. of phospho-molybdate solution to each tube and let stand 2 minutes.
- Add distilled water to 6¼ c.c. mark on each tube and compare in a colorimeter, the unknown to the standard nearer comparing to the naked eye.
- Calculation:

(Weaker) S

$$\frac{S}{U} \times 100 = \text{mg. sugar per 100 c.c. of blood.}$$

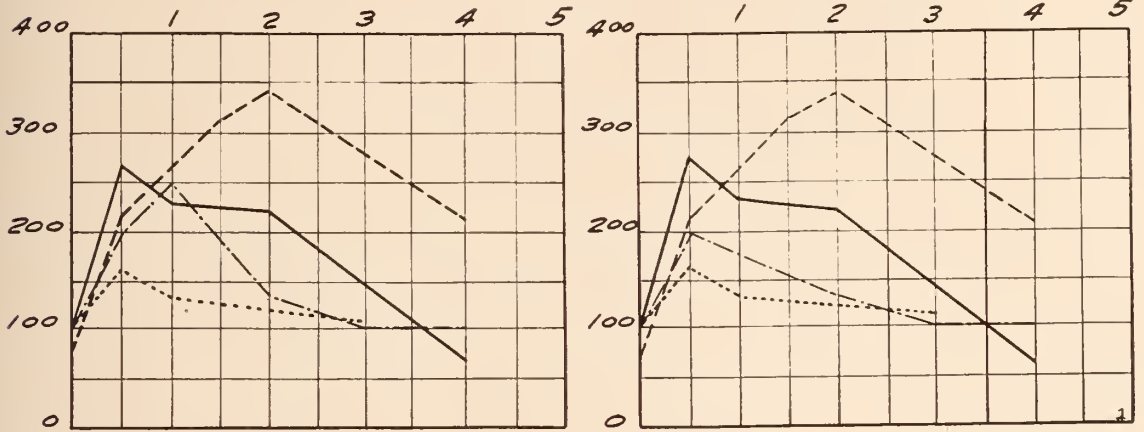
CHART I

Charts read vertically—Blood Sugar in Mgms. per 100 c.e. blood.
 Charts read horizontally—Time in hours after ingestion of glucose.

Mrs. L. K. Date, 3-25-'24.
 Blood Sugar Tolerance Test

A. Folin and Wu

B. Folin and Wu (Micro-Method)



----- CURVE OF A SEVERE DIABETIC
 _____ CURVE OF A MILD DIABETIC
 - - - - - CURVE OF ACTUAL TEST
 CURVE OF A NORMAL INDIVIDUAL

A. Grams Glucose Given by Mouth—100		
Blood Sugar per 100 C.C.	Glucose	Urine Sugar %
Fasting	100 mgs.	Negative
30 Min.	200 mgs.	Negative
60 Min.	250 mgs.	Slight reduction
2 Hrs.	133.3 mgs.	Slight reduction
3 Hrs.	100 mgs.	Negative
4 Hrs.	100 mgs.	Negative

B. Grams Glucose Given by Mouth—100		
Blood Sugar per 100 C.C.	Glucose	Urine Sugar %
Fasting	100 mgs.	Negative
30 Min.	200 mgs.	Negative
60 Min.	250 mgs.	Slight reduction
2 Hrs.	133.3 mgs.	Slight reduction
3 Hrs.	100 mgs.	Negative
4 Hrs.	100 mgs.	Negative

(Stronger) S

—×200=mg. sugar per 100
 U c.e. of blood.

Note: The apparatus is washed with water. The pipettes are rinsed with the sol. to be added to avoid diluting.

PREPARATION OF SOLUTIONS

The solutions used are prepared the same as for the original, and in the following manner:

The Standard sugar solution is prepared by dissolving 1 Gm. pure anhydrous dextrose in 100 c.e. of Sat. Sol. Benzoic Acid. The working solutions are prepared by diluting 5 and 10 c.e. of the above stock Sol. to 500 c.e. with sat. Sol. of Benzoic Acid. These will contain 0.2 and 0.4 mg. dextrose per 2 c.e. respectively and are fairly stable.

The Alkaline Copper solution is prepared by dissolving 40 Gm. Anhydrous Na_2CO_3 in about 400 c.e. dist. water and place in a liter flask. Add 7.5 Gm. tartaric acid and when dissolved add 4.5 Gm. crystallized $CU SO_4$; and mix and make up to 1 liter. With impure Carbonate a sediment may form in a week or so; in such case filter into another vessel.

The Molybdate-phosphate solution is prepared by putting 35 Gm. Molybdic Acid in a 1 liter beaker. Add 5 Gm. sodium tungstate, 200 c.e. 10% NAOH, and 200 c.e. distilled water. Boil vigorously 20-40 min. to remove NH_3 , cool and dilute to 350 c.e. with distilled water. Add 125 c.e. 85% phosphoric acid and dilute to 500 c.e. with distilled water.

Table Giving Time Blood Will Remain Preserved at Room and Incubator Temperature in the Pipette With a Rubber Band Over the Ends.

Diluted with Distilled Water.

Blood No. 1, when taken 400 mg.; after standing 9 hours room temperature: 400 mg.

Blood No. 2, when taken 400 mg.; after standing 12 hours room temperature: 333.3 mg.

Blood No. 3, when taken 100 mg.; after standing 24 hours room temperature: 0.

Diluted with 1-100 Formaldehyde Solution.

Blood No. 1, when taken 285.7 mg.; after standing 168 hours (7 days) incubator, 37.5C: 285.7 mg.

Blood No. 2, when taken 250 mg.; after standing 288 hours (12 days) room temperature: 250 mg.

Due to the simplicity, accuracy, and many advantages of the Micro-Folin-Wu Method, it has been adopted as routine in our institution. The members of the staff order blood sugars and sugar

tolerance tests on patients in the same manner as ordering a blood count, and all specimens are taken and transported to the laboratory by the technicians, in the same way, as the technique is the same. Up to the present time more than 200 specimens of blood have been analyzed and the following tables will give results in a number of these cases.

TABLE III. Analyses of 24 specimens of blood of non-diabetic patients by Author's Micro-Folin-Wu Method, using 0.1 c.c. of blood.

1. Dr. T. L. B.	90.9	mg. per 100 c.c. of blood.
2. Miss M. F.	100	mg. per 100 c.c. of blood.
3. Miss V. G.	100	mg. per 100 c.c. of blood.
4. Mrs. J. D.	100	mg. per 100 c.c. of blood.
5. Miss J. S.	100	mg. per 100 c.c. of blood.
6. Miss H.	100	mg. per 100 c.c. of blood.
7. Miss M. H.	100	mg. per 100 c.c. of blood.
8. Miss E. C.	100	mg. per 100 c.c. of blood.
9. Miss H. B.	100	mg. per 100 c.c. of blood.
10. Mr. L. F. D.	83.3	mg. per 100 c.c. of blood.
11. Miss L. A. E.	100	mg. per 100 c.c. of blood.
12. Miss S. S.	90.9	mg. per 100 c.c. of blood.
13. Mrs. J. McD.	100	mg. per 100 c.c. of blood.
14. Mrs. J. O. C.	100	mg. per 100 c.c. of blood.
15. Mrs. G. E. F.	100	mg. per 100 c.c. of blood.
16. Mrs. S. G.	100	mg. per 100 c.c. of blood.
17. Mrs. M. C. O.	100	mg. per 100 c.c. of blood.
18. Mr. L. F.	90.9	mg. per 100 c.c. of blood.
19. Miss W. W.	100	mg. per 100 c.c. of blood.
20. Miss W. A.	100	mg. per 100 c.c. of blood.
21. Miss K. D.	100	mg. per 100 c.c. of blood.
22. Miss G. E.	100	mg. per 100 c.c. of blood.
23. Miss W. W.	100	mg. per 100 c.c. of blood.
24. Miss K. K.	90.9	mg. per 100 c.c. of blood.

TABLE IV. Analyses of 26 specimens of blood of diabetic patients by Author's Micro-Folin-Wu Method, using 0.1 c.c. of blood.

1. Mrs. M. H.	333.3	mg. per 100 c.c. of blood
2. Mrs. S. S.	333.3	mg. per 100 c.c. of blood
3. Mrs. C. G.	400	mg. per 100 c.c. of blood
4. Mr. J. S.	200	mg. per 100 c.c. of blood
5. Mrs. A. S.	333.3	mg. per 100 c.c. of blood
6. Mr. J. K.	200	mg. per 100 c.c. of blood
7. Sr. M. B.	500 (a)	mg. per 100 c.c. of blood
8. Sr. M. V.	400 (a)	mg. per 100 c.c. of blood
9. Mrs. M. D.	400 (a)	mg. per 100 c.c. of blood
10. Mrs. M. D.	400 (b)	mg. per 100 c.c. of blood
11. Mrs. M. D.	400 (c)	mg. per 100 c.c. of blood
12. Mrs. M. D.	285.7 (d)	mg. per 100 c.c. of blood
13. Mrs. M. D.	285.7 (e)	mg. per 100 c.c. of blood
14. Mrs. M. D.	333.3 (f)	mg. per 100 c.c. of blood
15. Mrs. M. D.	400 (g)	mg. per 100 c.c. of blood
16. Mrs. M. D.	333.3 (h)	mg. per 100 c.c. of blood
17. Mrs. M. D.	285.7 (i)	mg. per 100 c.c. of blood
18. Mrs. M. D.	181.8 (j)	mg. per 100 c.c. of blood
19. Mrs. M. D.	166.6 (k)	mg. per 100 c.c. of blood
20. Mrs. M. D.	142.8 (l)	mg. per 100 c.c. of blood
21. Mrs. M. D.	133.3 (m)	mg. per 100 c.c. of blood

22. Mrs. M. D.	Insulin Treatment	166.6 (n)	mg. per 100 c.c. of blood
23. Mrs. M. D.		142.8 (o)	mg. per 100 c.c. of blood
24. Mrs. M. D.		153.8 (p)	mg. per 100 c.c. of blood
25. Mrs. M. D.		111 (q)	mg. per 100 c.c. of blood
26. Mrs. M. D.		133.9 (r)	mg. per 100 c.c. of blood

CONCLUSION

This micro method is a minimized, and not a modified, Folin-Wu Method of blood sugar estimation. It does not vary in a single detail from the original technique.

The blood diluting pipette solves the problem of obtaining the blood in small quantities, and is applicable to all patients, including infants, small children, and obese individuals, in which it is almost impossible to obtain blood by venipuncture. There is no danger of blood clotting in the pipette, as one has ample time to draw and dilute the blood, and this can be done by any technician who can obtain blood for counting, as the technique is the same, while venipuncture usually requires the skill of a physician. This pipette provides a simple means whereby physicians out in general practice can obtain, measure, and dilute specimens of blood and transport to a laboratory, by placing a rubber band over the ends. Diluted with distilled water it will keep 9-12 hours at room temperature. Using 1-400 formaldehyd solution as diluent it will remain preserved for one week or more, at incubator (37.5° C.) and room temperature, without altering sugar content in the least. This makes it possible to send specimens of blood in this manner any distance through the mail.

A method which has distinct advantages over the original, as it eliminates the necessity of having on hand sterile syringes and needles, test-tubes, containing an anti-coagulant. It saves the patient the fear, pain, and danger of venipuncture.

It saves time for the operator, as blood is drawn, measured, and diluted in a few seconds' time.

Its simplicity and accuracy make it desirable for routine use in any institution, clinic, or private laboratory, and for these reasons, I submit it to the profession, as in all scientific investigation, we should endeavor to subject our patients to as little pain as possible, and at the same time give accurate results.

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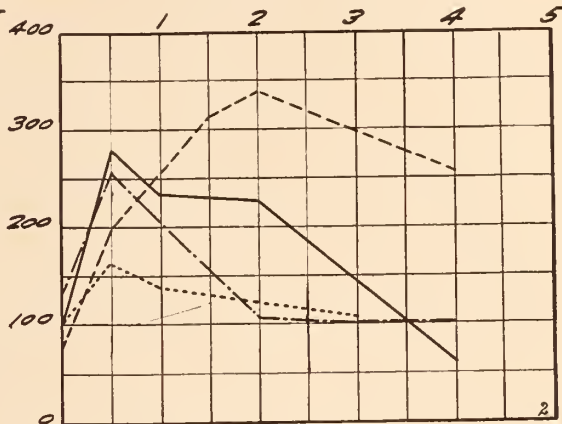
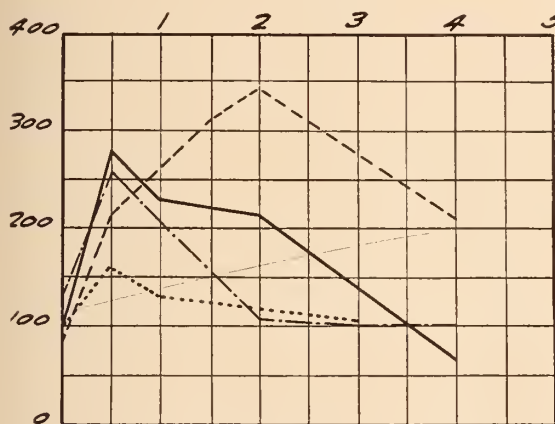
CHART II

Charts read vertically—Blood Sugar in Mgms. per 100 c.c. blood.
 Charts read horizontally—Time in hours after ingestion of glucose.

Mrs. S. B. H. Date, 3-21-'24.
 Blood Sugar Tolerance Test

A. Folin and Wu

B. Folin and Wu (Micro-Method)



----- CURVE OF A SEVERE DIABETIC
 _____ CURVE OF A MILD DIABETIC
 CURVE OF A NORMAL INDIVIDUAL

A. Grams Glucose Given by Mouth—100		
Blood Sugar per 100 C.C.	Urine Sugar %	
Fasting 125 mgms.	Negative	
30 Min. 250 mgms.	1.16%	
60 Min. 222.2 mgms.	2.27%	
2 Hrs. 111 mgms.	0.65%	
3 Hrs. 100 mgms.	Negative	
4 Hrs. 100 mgms.	Negative	

B. Grams Glucose Given by Mouth—100		
Blood Sugar per 100 C.C.	Urine Sugar %	
Fasting 125 mgms.	Negative	
30 Min. 250 mgms.	1.16%	
60 Min. 222.2 mgms.	2.27%	
2 Hrs. 111 mgms.	0.65%	
3 Hrs. 100 mgms.	Negative	
4 Hrs. 100 mgms.	Negative	

3. Baum & Isaacson: An Adoption of the Folin-Wu Method of Blood Sugar, Applicable to Small Amounts of Blood, J. Lab. & Clin. Med., 7:357 (March) 1922.

4. Kramer-Gillman: Mod. Folin-Wu Method Using 0.05-0.1 c.c. of Blood, J. A. M. A., 81-1171 (October 6) 1923.

5. F. S. Randles, and W. K. Grigg, J. A. M. A., Vol. 82, No. 9 (March 1) 1924.

DISCUSSION

PRESIDENT SLEYSER: The paper is now open for discussion. I would like to remind you the papers are limited to twenty minutes and the discussion to five.

DR. E. L. THARINGER (Milwaukee): Mr. Chairman and Members of the Society: I feel that Dr. Byrd is to be complimented on having originated this micro method. There are many micro methods in use at the present time but many of them are make-shift, as you know. This is the only accurate micro-method described. Where this modification can be carried out as easily as any other method there would be the advantage of its being absolutely accurate. There are many points in the technique that make this test very valuable, as has been described here. The quantity of blood is very easily obtained, whereas in the other method it is necessary to use the syringe and get over two c.c.'s to use in making the test so you have to have more than two c.c.'s to begin with. That necessitates a sterile syringe. If one can imagine a technician going through

an institution to take say six or eight specimens for sugar, he must carry with him that many sterile syringes. With this method that isn't necessary.

In making tests where it is necessary to take four or five specimens of blood, people object to being punctured five or six times in a period of two hours, but there isn't any objection to the puncturing of a finger and obtaining a small quantity of blood. That makes this a very valuable procedure.

The most important feature, as I see it, is the diluting and placing in a pipette which can be sealed and transported. Up to this time it has been difficult to transport blood for blood sugar because the blood was in a cold state with an anti-coagulant added and there was nothing in the mixture to prevent the quantity of sugar from changing while in transportation. This diluting of the blood at the time it is taken with the addition of formaldehyde prevents the loss of sugar, and, as Dr. Byrd has stated, one can preserve a specimen for several days without the loss of any of the sugar. I think that is the most important feature of the test. I think his will be developed to such an extent so we can send blood through the mail for blood sugar test in the same way we send other specimens of blood (Applause).

PRESIDENT SLEYSER: Is there any further discussion? Dr. Seelman, have you anything?

DR. J. J. SEELMAN (Milwaukee): This new test seems to offer a number of advantages over the micro-

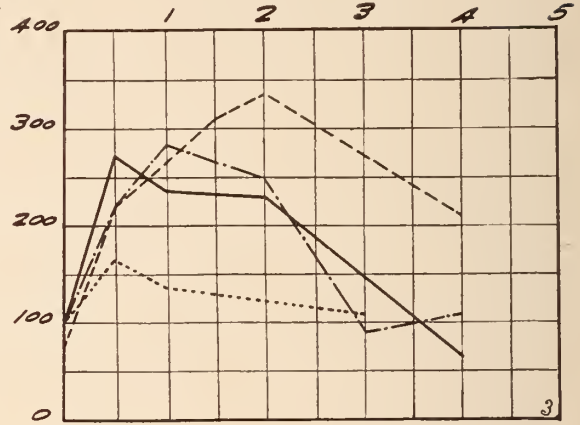
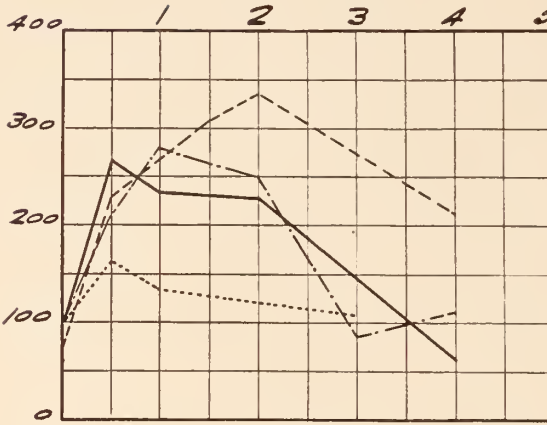
CHART III

Charts read vertically—Blood Sugar in Mgms. per 100 c.c. blood.
 Charts read horizontally—Time in hours after ingestion of glucose.

Mr. O. T. Date, 4-1-'24.
 Blood Sugar Tolerance Test

A. Folin and Wu

B. Folin and Wu (Micro-Method)



----- CURVE OF A SEVERE DIABETIC
 _____ CURVE OF A MILD DIABETIC
 - . - . - CURVE OF A ACTUAL TEST
 CURVE OF A NORMAL INDIVIDUAL

Charts read vertically—Blood Sugar in Mgms. per 100 c.c. blood.

Charts read horizontally—Time in hours after ingestion of glucose.

Mr. F. K. Date, 7-14-'24.

Miss F. S. Date, 6-26-'24.

Blood Sugar Tolerance Tests

1. Folin and Wu (Micro-Method)

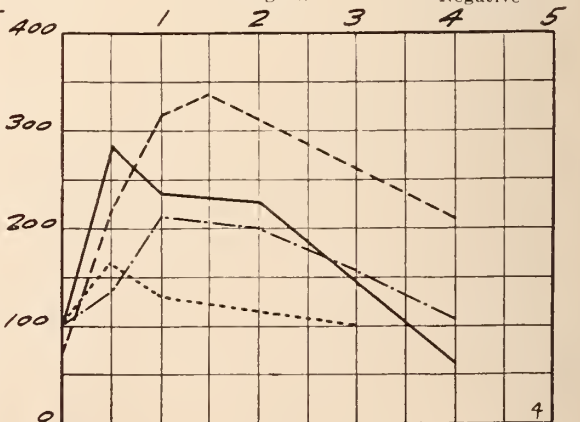
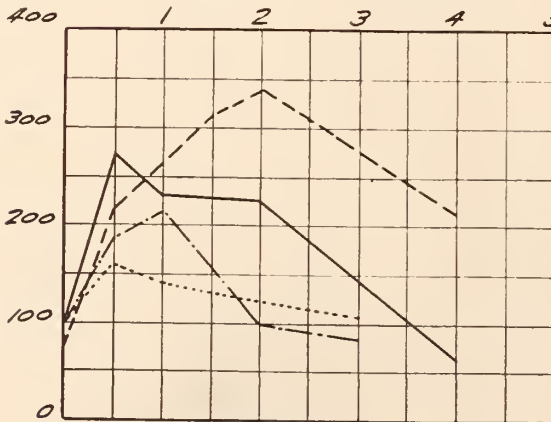
2. Folin and Wu (Micro-Method)

A. Grams Glucose Given by Mouth—100

Blood Sugar per 100 C.C.	Urine Sugar %
Fasting 100 mgms.	Negative
30 Min. 222.2 mgms.	1.25%
60 Min. 285.7 mgms.	3.57%
2 Hrs. 250 mgms.	3.12%
3 Hrs. 99.9 mgms.	Slight reduction
4 Hrs. 111.1 mgms.	Negative

B. Grams Glucose Given by Mouth—100

Blood Sugar per 100 C.C.	Urine Sugar %
Fasting 100 mgms.	Negative
30 Min. 222.2 mgms.	1.25%
60 Min. 285.7 mgms.	3.57%
2 Hrs. 250 mgms.	3.12%
3 Hrs. 99.9 mgms.	Slight reduction
4 Hrs. 111.1 mgms.	Negative



----- CURVE OF A SEVERE DIABETIC
 _____ CURVE OF A MILD DIABETIC
 - . - . - CURVE OF A ACTUAL TEST
 CURVE OF A NORMAL INDIVIDUAL

1. Grams Glucose Given by Mouth—100

Blood Sugar per 100 C.C.	Urine Sugar %
Fasting 100 mgms.	Negative
30 Min. 181.8 mgms.	0.4 %
60 Min. 222.2 mgms.	1.85%
2 Hrs. 100 mgms.	1.35%
3 Hrs. 83.3 mgms.	Slight reduction
4 Hrs. 99.9 mgms.	Negative

2. Grams Glucose Given by Mouth—100

Blood Sugar per 100 C.C.	Urine Sugar %
Fasting 100 mgms.	Negative
30 Min. 133.3 mgms.	Slight reduction
60 Min. 222.2 mgms.	1.56%
2 Hrs. 200 mgms.	1.92%
3 Hrs. 166.6 mgms.	1.72%
4 Hrs. 125 mgms.	0.56%

chemical methods. As the author has said, there have been a number of attempts to perfect micro-chemical methods without any great success. Such tests have the considerable advantage of saving time and require less blood. But they also have the disadvantage that they require somewhat greater skill and care in the different procedures.

There is one caution I would like to express in connection with this method and that is this: the author suggests it has the advantage that blood can be sent through the mail. I presume he expects the physician to take the blood in the usual way. My experience is that it takes some skill to collect blood in capillary pipettes, even for blood counts, and the average physician very rarely is able to do it unless he does it constantly. I know in my laboratory if I fail to take blood for blood counts for a few weeks, I get mighty clumsy at it. I

make it a practice to insist on taking a blood count myself, occasionally, just to keep my hand in. If I haven't done it for a while, I find it isn't so easy.

These micro-chemical methods, which require taking blood in capillary pipettes, do require care if you want accuracy. The amount of blood used is very small. It is easy to draw over the mark or get a little under it, and if you don't get it right, it necessitates cleaning out the pipette and trying over again, and if you have to try over two or three times the patient begins to think you don't know your business. I am sure any physician who doesn't constantly take blood for blood counts, will agree with me that, if it is only done occasionally, it is difficult to do it with the desired skill and dispatch. Except for this, I believe the method certainly has a great deal to commend it, and I wish to compliment the author on working out the technique as he has.

Is Legislation Indicated as Partial Solution for Frequency of "Foreign Body" Cases?

BY COMMITTEE ON PUBLIC POLICY AND LEGISLATION

The Committee on Public Policy and Legislation is in receipt of the following letter:

Milwaukee, Wis.

Dr. Otto B. Bock,
925 North 9th Street,
Sheboygan, Wis.

Dear Dr. Bock:

I removed this morning from the esophagus of a child a foreign body which was one of the toys inserted into the Cracker Jack boxes as prizes. This is at least the fourth foreign body of a similar kind, that is prizes from Cracker Jack boxes, that I have removed from the esophagus in the past year or two.

It occurs to me that some effort might be made by our Committee on Legislation at the next session of the legislature to frame a law prohibiting the manufacturers of Cracker Jack from selling their product in this state if the box contains anything beside Cracker Jack.

To an individual who sees a good bit of this foreign body work the prize in the Cracker Jack box is a very definite menace. If you have any ideas on the subject, I should be very glad to hear from you.

Yours very sincerely,

W. E. GROVE.

This letter presents an apparent opportunity for the members of the State Medical Society

of Wisconsin to perform a public service along this line. Before this question can be presented adequately to any legislative committee, however, it is very necessary that this Committee have the results obtained by some survey.

Members are urged to write our Secretary, 558 Jefferson Street, Milwaukee, AT ONCE, and report the number and frequency of cases along this line as well as instances where serious results have obtained before medical care could be secured.

If this data warrants such a law as is suggested, the data will be referred promptly to the proper committees of the 1925 legislature, now in session.

COMMITTEE ON MEDICAL ETHICS

Attention of every member of the State Medical Society of Wisconsin is respectfully directed to action of the Council on the subject of questionable medical ethics. This action will be found on page 514 of this issue and this notice is given in accordance with instructions of the Council. Mr. J. G. Crownhart, Executive Secretary.

THE WISCONSIN MEDICAL JOURNAL
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February, 1925

No. 9

SERVICE AVAILABLE

There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 558 Jefferson Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical, Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. *Medical Books* will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. *Physicians' Exchange Column* is open to all members without charge.

4. *New Scientific Publications* listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. *State Laws* and departmental rulings can be secured through the Secretary's office.

6. *Legal Advice* upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

7. *Legislative Service.* Upon request members may secure information upon any measure introduced in the 1925 Wisconsin Legislature.

FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

OUR 1925 MEETING

DISSATISFACTION with the procedures and programs of medical societies is widespread and growing. Absentees from meetings, already too numerous, are being recruited from those who went, saw and were bored.

The committee in charge of the program for this year's meeting sought criticisms and suggestions from conscientious attenders, hoping thereby to discover a path which would lead towards felicity hitherto unknown. In order that there may be no doubt about what seems expedient to attempt to accomplish and why, a summary of many criticisms is presented and the tentative working scheme which incorporates the suggestions is outlined.

Perhaps the most serious and well sustained criticism is the waste of time. Sessions do not begin promptly; the schedule is not followed and rules are not enforced. Programs are incoordinate; too many unrelated subjects are considered and no attempt made to discuss matters of value to specialists and general practitioners. Papers are read in needless detail and the subjects presented are often unsuitable. There is too large an element of personal experience introduced, too much dogmatizing instead of broader considerations of principles. Some contributors seem to regard the programs as an advertising medium instead of a means to share knowledge derived from personal effort. Case reports, reviews of literature, statistical and textbook compilations and the exhibition of lantern slides other than the few needed to illustrate principles are usually undesirable. The meetings savor too strongly of didactic lectures and too little of postgraduate educational conferences.

Discussion of papers are too haphazard and frequently are not germane. There are no practical demonstrations wherein laboratory workers and clinicians participate to illustrate procedures and the values of combined effort. There are no clinics in which guests could teach their methods which are so difficult to learn from reading. And so almost *ad infinitum*.

Apparently the greatest needs are a keynote topic to which all contributors may attune their efforts, closer relationship between the subjects presented, expedition in presentations and discussions, and an introduction of "dry clinics."

Medicine has survived successive phases of domination by mystics, empiricists, anatomists, physiologists and chemists and established itself upon the broad biologic foundation where all science will help and none retard future development.

Every action and reaction within an individual in health and in disease occurs in obedience to biologic laws. We are to be told in words of one syllable the main facts that we should know about conditions in health and disease as biologists understand them, about defense and resistance as immunologists know them and why the alterations occur that pathologists recognize. This to be put on a homely practical basis so that we can understand connections between cause and effect and apply this knowledge in our work.

Biologic medicine will be the keynote. Contributors will be expected to make clear in their presentations the cause and effect relationships in the observations they report.

Two subjects have been selected for particular consideration because they are live and of general interest—the anemias and radiotherapy. Great blessings can come from radiation; greater harm is being done. Perhaps we can learn in part the priceless lesson, what not to do. Other subjects will be welcomed. The final selection must depend upon what offers the largest promise of good for the greatest numbers.

Any subject worthy of presentation merits careful preparation, boiling down to essentials and then, if it is to get across, the summary should be spoken, not read. An audience gets more from such an address if limited to twenty minutes; and such will be the time allowance except for guests and keynote speakers.

Each contributor will be expected to nominate one or two to open discussion and to furnish to the discussers abstracts of his paper. Impromptu discussions are most desirable. All discussions should be upon the subject matter presented. Disagreements are sources of information. Expressions of personal animosities are intolerable and the chair will not permit digressions from the subject. Discussions will be limited to five minutes.

Sessions will begin punctually; the time for each paper will be given; and the chairman has no latitude in the schedule.

Provision will be made for a few suitable clinics.

All members of the State Medical Society of Wisconsin want to enjoy the annual meeting to the utmost. The social features this year will be more attractive than ever and also the sociability if the attendance is larger. We shall go back to our jobs better equipped and more enthusiastic if each will do a little better than best to cooperate toward making this a *live* meeting.—J. G. C.

SETTING THE PACE

FOR several years Dr. J. C. Wright, Secretary of the Langlade County Medical Society, has been the first to report a one hundred per cent membership among the county societies. Langlade county again leads the list for 1925 with a one hundred per cent report submitted early in December, 1924.

The officers and members of the Langlade County Society may well be proud of their consistent record.—J. G. C.

LET'S BE SOCIALLY MINDED

THERE is need today for physicians in every locality to identify themselves with those civilian groups which help to make social and civic conditions more as they ought to be. Medical men, we believe, are under as much obligation to play a forceful part in the community life as other professional and business men.

The great and often unthinking public, that material with which the medical man works, gets to know him too often as an expert with the stethoscope and prescriptions and too little as a man and citizen.

It is our contention that the physician should not keep too closely within his medical shell; there is every reason why he should take a part in the community interests and the civic life of his town.

From hamlet to metropolis, every community has its social and civic interests to be sustained through the activities of its leaders of initiative and accomplishment. Men and women of ability are in demand in every locality to serve the civic needs. From such undertakings nobody should be barred. There is a place and opportunity for wide participation. Least of all should the physician deny himself this participation.

The physician, it may be said, already has a full program in caring for his private practice. This may be true, but for his own good he needs

the contacts with his fellow citizens that come from "mixing" with social and welfare organizations other than his medical society. From every such service for the general welfare comes in time a reward, if it is only the inward satisfaction one experiences in being a contributor to the community good.—C. A. H.

AN INVITATION

THE average doctor prides himself on his interest in the public welfare. Wisconsin doctors are going to be judged in a measure by the way in which they display this interest during the coming year.

A bill has been introduced to our legislature that provides for examination in the Basic Sciences of all applicants who aim to treat the sick (except by religious or mental means). This bill is framed along the same essential lines as was the bill which met defeat last year.

It seems almost unnecessary to discuss the need of such a law when we think of the rather frequent exposures of ignorance, inefficiency and negligence on the part of so-called practitioners.

A simple practical solution of this matter is found in such a law which stops this public health "nuisance" before it begins, the best sort of preventive medicine.

No physician need hesitate to submit the necessity for and the essentials of this proposed legislation to laymen, who, with him, take an interest in public health. Our legislature is a democratic institution. Its members desire to represent their constituents, and like to hear from the home folks.—R. E. M.

The bubbler drinking fountain was endorsed as satisfactory for use in schools, provided the head of the flow cannot be reached by the human mouth. A complaint was received of a rural school where only one cup for 80 pupils was provided. It was recommended that a bubbler or individual drinking cups be furnished.

A maintenance fund, in amount fixed by the state board of health, must be deposited with the county treasurer for all burial vaults (mausoleums) built either wholly or partially above ground, provided the cemetery is outside the city limits. Before they may be constructed, the plans and specifications for such structures must be submitted to the state board for approval.

THE JOURNAL CLINIC

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THE OCCURRENCE OF PELLAGRA IN
WISCONSIN: A CASE REPORT*

By WILLIAM S. MIDDLETON, M.D.,

MADISON

Pellagra has always been considered among the diseases of tropical or subtropical climates; and in this country since the wave of diagnostic hysteria which swept the profession on the report of the Illinois Pellagra Commission in 1911, the incidence of this disease in the Northern States has been very low. The Wisconsin State Board of Health reports the following mortality figures for pellagra in the past six years: 1918, none; 1919, none; 1920, one; 1921, one; 1922, three; 1923, four. Its frequency as a cause of morbidity cannot be accurately estimated in this state, but the files of the Wisconsin Medical Journal reveal only five reported cases. In 1912, O. H. Foerster¹ reported four cases, only one of which arose locally. The fifth case of pellagra reported in the Wisconsin Medical Journal was that of Marsh,² being particularly interesting because of its local origin. Doctor O. H. Foerster in a personal communication adds six further cases and reports two other cases of pellagra occurring in the practice of Dr. H. R. Foerster, Milwaukee, Wisconsin. None of these eight cases has appeared in the literature nor is there information available concerning their origin.

Obviously the disease is sufficiently unusual in this state to warrant the report of the following classical case, of local origin, in some detail.

Case of W. W.—White, male, married. Age 57. Resident of Wisconsin. American by birth; mason by occupation. Referred to the Bradley Memorial Hospital by Dr. Gillette, Pardeeville, Wisconsin, who first suggested the diagnosis.

June 8, 1924.

Chief Complaint: "Weakness."

History of Present Illness: For past four years the patient has been subject to periodic recurrences of gen-

eral weakness. A regular cycle ordinarily pertained—after active outdoor occupation of early spring would become very tired and weak by midsummer; a period of rest would result in apparent complete recovery of physical vigor by winter. However, with each successive decline the recovery was slower and less complete, until the past winter found little reaction in the patient. General health has failed greatly in the past six months. Bedfast for the last six weeks.

About three years ago noted a pigmentation of the hands, which was succeeded by peeling. The occurrence of this condition suggested sun-burning to the patient except that it continued regardless of exposure. Swelling of the feet and arms was remarked early in the course of the skin changes. Thickening and peeling of the skin over the nose were noticed about this time.

For the past three months spells of dizziness have recurred. Indeed, almost constantly this symptom has troubled to such an extent that the sensation of pitching forward has limited physical activity. Diplopia was present for a half day last spring. Nocturnal dyspnoea has been a troublesome symptom for three weeks. This may amount to orthopnoea. Choking sensation has been the accompaniment of this dyspnoea. For five or six months has had some speech difficulty—not constant, however. For one month or more the patient has complained of a burning sensation of the tongue. This burning, while present each day, persists only a short time.

Special System Symptoms:

Cranial: Eyesight failing—reads with difficulty. No headaches. Hearing is not acute.

Gastro Intestinal: Appetite good. Has fondness for sweets. An abundance of milk and protein foods has always been taken. No nausea or vomiting. Bowels have shown alternating constipation and diarrhoea for several years.

Cardio-vascular: Palpitation on exertion. No cardiac pains.

Respiratory: Negative, except for dyspnoea.

Genito-urinary: Recent frequency of urination. Urgency has accompanied this symptom. Nocturia present.

Nervous: Tremor of hands when excited.

Bones and joints: Negative.

Past Medical History:

Measles and mumps were only childhood diseases. No complications.

Scarlet fever as an adult—very severe attack.

Diabetes was diagnosed four years ago when an obstinate sore appeared on the right great toe.

Nineteen twenty-three many badly affected teeth were extracted.

Social History:

Married twice, twenty-five years to present wife and six years to first wife. Always a resident of Wisconsin. Until recently a mason by trade and aside from this occupation patient has worked only on farm. Never engaged in a confining or indoor occupation. Regular in habits of eating and sleeping. Moderate user of tobacco—smoking or chewing.

Family History:

*From the Department of Clinical Medicine, Univ. of Wisconsin.

¹Foerster, O. H., Wis. M. J., XI, No. III, April, 1912.

²Marsh, H. E., Wis. M. J., XXI, No. IX, Feb., 1923.

Father living and well; mother died of senility. No other history of note.

Physical Examination:

The patient is an elderly, white male, quite emaciated and extremely weak. His mental attitude is apprehensive.

Skin shows a dark brown pigmentation of the exposed surfaces of the face and neck. Over the bridge of the nose is a narrow zone of extreme hyperkeratosis. The hands and forearms show symmetrical areas of thick scaly brown pigmentation; hyperkeratosis obvious. Smooth glistening areas of atrophic skin are interspersed with hyperkeratotic areas. (Figure 1.)



Fig. 1

Head: Hair is gray and thin. The face is drawn.

Eyes show small, equal pupils which respond promptly to light and distance. Extrinsic movements are normal.

Nose and ears are normal.

Mouth: All teeth have been extracted and plates are fitted. The tongue is "bald" (smooth, ironed out and red) with deep lateral furrows. The tonsils are imbedded.

Neck: No masses. Emaciation is clearly evidenced.

Chest: The antero-posterior diameter is increased. Expansion is poor but equal. Tactile fremitus is normal. Hyperresonance uniformly. Definite prolongation of expiration throughout both chests. No rales.

Heart: Apical impulse is not palpable, no thrill.

Borders:

Right	Interspace	Left
22	2	20
27	3	50
30	4	110
..	5	120

At the apex is heard a soft blowing systolic murmur, which is transmitted laterally to the axilla. Although the heart sounds are quite distant, the aortic second is definitely accentuated. Rhythm is normal.

Abdomen: Muscles are held rigid and palpation is rendered difficult. There are no tender areas nor in-

flammatory masses. Both liver and spleen are palpable.

Extremities: Stiffness of fingers, with coarse tremor is remarked. See description of skin. Pulse is full, regular and well sustained. There is some thickening of the radial arteries. Blood pressure—systolic 146, diastolic 84.

Neurologic examination revealed no abnormality of cranial nerve supply with the exception of partial deafness. General muscular weakness is remarked with localized fibrillary tremors in various muscle groups of both upper extremities. There is a general hyperreflexia. Clonus is elicited in both patellar tests, but none in either ankle. There is no Babinski nor confirmatory in either foot. Definite ataxia in test movements for the upper and lower extremities. Synergy is imperfect. Sensorium is not admissible of accurate study by reason of the mental state of the patient.

6-17-24

There has been little change in the patient's condition since admission except for progressive weakness. Has now developed ill-defined delusions and hallucinations. In addition there is remarked dysphagia and increasing difficulty in articulation. Irregular fibrillary tremors are present in the forearms and lower legs. A muscular resistance of the plastic ("lead-pipe") degree is present in all extremities. A large bullous lesion has appeared on the left buttock.

6-18-24

A heavy odor of acetone on the breath. A large bulla is noted on the left heel. Many large moist rales are found in both bases.

6-19-24

Fresh bulla on right heel. A superficial ulcer has appeared on the right hip, resulting from the rupture of a bulla.

6-20-24

Grimacing and an accession of fibrillary tremor are noted. Retraction of the neck and an incomplete Kernig are elicited.

6-21-24

A. M. Comatose; cannot be aroused. Pronounced psycho-motor activity. Respirations are regular in rate and rhythm. Pupils are pin point.

3:30 P. M. Succeeding a period of pronounced and difficult oligopnoea the patient expired.

The clinical course of the condition was marked by a slightly elevated irregular temperature with a disproportionately increased pulse rate. The respiratory curve was somewhat, though not proportionately, elevated until shortly before death. The patient was incontinent of urine and feces from the time of admission.

Laboratory data were largely of a negative character. The blood chemistry, glucose, non-protein nitrogen and uric acid gave normal levels on the day after admission. Repeated urinalyses showed only slight traces of albumen, sugar and acetone. The blood showed:

Hemoglobin	80%
Erythrocytes	4,140,000
Leucocytes	8,600
Differential:	
Polymorphonuclear neutrophile...	72.2
Lymphocytes	19.0

Large mononuclears.....	4.4
Eosinophiles	3.8
Basophiles .....	.4

The blood Wassermann was negative.

An autopsy was performed and the following anatomic diagnosis derived:

Lungs: Apical, obsolete tuberculosis, bilateral. Oedema and early broncho-pneumonia of both lungs.

Cardio-vascular system: Heart-myocardial degeneration; mitral valvulitis. Aorta—slight athero-sclerosis.

Gastro-intestinal system: Stomach—chronic gastritis. Intestines—chronic follicular and catarrhal enterocolitis. Liver—(Weight 1780 gms.), chronic parenchymatous hepatitis.

Genito-urinary system: Kidneys—chronic mixed nephritis. Bladder—chronic cystitis.

Doctor Bunting reports the following findings from study of the histologic sections:

Spinal Cord: Shrinking of the anterior horn cells; nuclei missing; pyknotic and vacuolated anterior horn cells (apparently slow degeneration).

Heart: Fibrous thickening of the pericardium in a patch adjacent to a coronary vessel. Slight sclerosis of this coronary artery. Some increase in epicardial fat. Hypertrophy of muscle fibers with some fatty degeneration and increased pigment. Small patches of sclerosis and edema of stroma.

Gastro-intestinal tract: Pylorus—glands coarse. Epithelium, high and of an indifferent type; nuclei deeply stained. Apparent atrophy of mucosa with wide separation of glands. Increase in the interglandular fibroblasts. Marked infiltration of plasma, large mononuclear and lymphoid cells. The described atrophy extends through pylorus into the duodenum. Vessels of submucosa congested. Submucosa shows some increase of connective tissue. Glands of Brunner atrophied.

Heum: Considerable infiltration of plasma cells into villi. No change in the glands of the crypts of Lieberkühn. Taken with the findings in the stomach a conclusion of a chronic gastro-enteritis is justified.

Colon: Lymphoid hyperplasia. Goblet cell increase with desquamation of epithelium. Pigment (hemosiderin?) in the phagocytes in the stroma at the base of the glands. The picture is that of a chronic catarrhal colitis.

Liver: Parenchyma shows swelling of the epithelial cells especially at the periphery of the lobule, which cells show well marked rows of hemosiderin; cells otherwise granular with occasional fine fat droplets. Cloudy swelling.

Pancreas: Slight lipomatosis. Parenchyma in general is normal. Islands of Langerhans show no pathologic changes. Slight increase in stroma in some lobules.

Lung: Increase in the carbon pigment. Patches of broncho-pneumonia; bronchi and alveoli filled with exudate of a polymorphonuclear variety (occasional lymphocytes and mononuclear cells); surrounding areas of hemorrhage and inflammatory oedema. Certain areas of slight emphysema. Some increase in the bronchial lymph nodes.

Kidney: Capsular surface slightly irregular. Epithelium of convoluted tubules swollen and granular, al-

most occluding the lumina. Few fat droplets in the tubular epithelium, not marked. Granular albuminous precipitate in the lumina of the tubules. Glomeruli in general slightly congested. Some thickening of the capsule of Bowman. Occasional obliterated glomerulus. Stroma slightly increased in small triangles beneath the capsule. In places the glomeruli show increase in stroma. Occasional hyaline cast in dilated tubule. Striate arteries show moderate sclerosis. A moderate arterio-sclerotic kidney.

Spleen: Malpighian corpuscles are small. Hyaline degeneration of arterioles. Pulp shows congestion with tendency to hemorrhage. Atrophic spleen.

This case terminating fatally presented the classical triad of dermatitis, diarrhoea and dementia. The skin lesions on the hands and forearms combining hyperkeratosis, pigmentation and atrophy were quite characteristic. The necklace of Casal was missing, but apparently its presence is unusual among the pellagrins studied in this country. Blebs appeared late in the course. The "bald" tongue should be especially stressed. The gastro-intestinal symptoms were irregular diarrhoea and constipation and the pathological findings explained this circumstance. Delirium and true dementia with hallucinations and delusions supervened at a late period in the course of this case. Fibrillary tremors in the arms were explained by the presence of an anterior horn involvement in the spinal cord. Bulbar involvement was suggested by the difficulty in speech and deglutition, but a complete necropsy was not permitted. The parenchymatous involvement of the liver is a common post-mortem finding.

The clinical course of this case deserves especial attention. The early eruption was mistaken by the patient for sunburn, as is so common. Characteristically, for the chronic type of pellagra, there had been seasonal remissions for several years. In this case there was a reversal of the rule in the occurrence of depression in the summer and remission in the winter. The grounds for a diagnosis of diabetes four years previously could not be established. It is not improbable in view of the parenchymatous involvement of the liver that an imperfect storing capacity might have been responsible for the presence of sugar in the urine, had the diagnosis rested on this determination alone.

From the standpoint of the student of preventive medicine the occurrence of pellagra in Wisconsin in an individual living under excellent hygienic and nutritional conditions, offers many

problems. Particularly is this true when a history of fondness for dairy products and all protein foods is volunteered. The work of Jobing and Peterson³ has cast much doubt on the time-18, 1916, pg. 501; *Ibid.* 21, 1917, pg. 109.

honored theory placing the responsibility for pellagra on maize. However, strong evidence is advanced in support of the deficiency theory and isolated cases do not lend especial force to the infection theory. Truly, high protein diets have controlled the course of pellagra in many instances; but on the other hand certain carefully controlled experiments have failed to show a higher incidence of pellagra among subjects on a deficient diet as compared with controls. Pellagra is, therefore, one of the unsolved riddles of medicine.

³Jobing, Jas. W., and Peterson, William. *J. Inf. Dis.*, 18, 1916, pg. 501; *Ibid.* 21, 1917, pg. 109.

TWO CASE REPORTS

BY EDWARD T. EVANS, M.D.,

LA CROSSE

I wish to report the following two cases which have several points of interest and because the first case, especially, has made me feel that medicine, for all its hard knocks, is a profession whose reward is rich in satisfaction.

CASE NO. 1

Nurse 24 years old with previous history of acute rheumatic fever, entered hospital the evening of July 4th in extreme shock following an automobile accident in which the car fell across her pelvis. Compression of the iliac crests caused excruciating pains of the back and pubis. Three fingers of the hand could be placed in a depression formed by fracture of the superior ramus of the right pubis. Catheter specimen of urine showed occult blood and 60 c.c. of urine in bladder, capacity not tested. B. P. 70/46. Stimulation and intravenous saline for shock. X-ray shows severity of fracture involving symphysis, right rami of pubis, descending ramus of left pubis and vertical fracture of all sacral vertebrae on the left with slipping upward of left pelvis for two and one-half inches.

Treatment: Patient placed in Henderson frame with 15-pound traction on left leg by Buck's extension. 7/9/24, pelvis pulled down one inch. 7/27/24, stereo of pelvis shows that progress is not satisfactory. Under ether, pelvis was forcibly reduced to within three-quarters of an inch, under fluoroscopic observation. This required extraordinary traction by two men on the left leg. Placed in tight cast from arm pits to ankles. 9/11/24, cast removed. 9/20/24, patient sitting up. 10/1/24, patient walking on crutches. 10/21/24, walking without crutches, three-quarters of an inch lift on

heel, no limp. The second X-ray shows the result, and of particular interest is the callous below the left ramus of the pubis where the periosteum evidently held intact as the fractured pelvis slid upward. Despite the distortion of the pelvis the excellent functional result in such a severe case is most satisfying.

CASE NO. 2

M. O. Age 19. Complains of pain in R. L. Q. for past two weeks with nausea. Last menses two weeks ago. Denies leucorrhea or dysmenorrhea. McBurney tenderness. Stretched introitus and tender right. Slight discharge. Uterus anterior and movable without pain. Diagnosed appendicitis with question of salpingitis.

Operation: median incision, appendectomy. Bilateral salpingitis found. Right salpingo-oophorectomy. Because of age and despite purulent left salpingitis this tube was left after injecting it for its entire length with 5% mercurochrome.

Of interest was the smear of pus from the tube which showed many spermatazoa. Later questioning of the patient gained the admission of coitus five days previous to the operation. Uneventful recovery.

N. B. We have previously injected tubes with mercurochrome at operation and one case subsequently became pregnant.

DR. MILOSLAVICH ADDRESSES ANTHROPOLOGISTS

Dr. E. L. Miloslavich, professor of pathology and bacteriology at Marquette University School of Medicine, and a member of the Wisconsin State Medical Study, addressed the annual meeting of the American Anthropologists at Washington on January 2nd, on the subject of the large intestine, a comparative study made in different European races. We quote from the synopsis:

"Miloslavich brings the first contribution to the comparative human splanchnometry and discusses the behavior of the large intestine in different people and races mainly of Europe.

"He makes a division of the three main groups according to the length of the colon; that is, those who possess a short colon (brachycolic), those with an average intestine (orthocolic) and those presenting an abnormally long organ (dolichocolic). The first two types are found chiefly in the countries of Central Europe; that is, Magyars, Croats, German-Austrians, Northwest and South Germans, South Italians, Czechs, etc., while the third type is composed of mostly Southern Europe races such as the European Turks, East Poles, East Germans, Ruthenians, Slovaks, Russians, etc.

"Dr. Miloslavich further demonstrates how the mode of living, climatic and social conditions,

interbreeding, etc., influences the length of the large intestine.

"Intensely instructive are the tabulated charts of the appearance of the usually long colon in the different people (hyperdolichocolon measuring over 200 cm. in length), showing that the Russians, for example, present this condition in about 60 per cent of the persons examined, while the Germans present this condition in but 4-5 per cent of those examined. An elongated colon, therefore, is the characteristic, or rather a particular characteristic of the Southeast Slavs of Europe."

PREVENTIVE MEDICINE

Edited by

W. D. STOVALL, Chairman

Section on Preventive Medicine, State Medical Society of Wisconsin

This Section is open to all members of the State Medical Society and others who wish to discuss subjects pertaining to Public Health. Original articles, and criticisms of statements appearing in this section are earnestly solicited. Questions concerning public health procedure will be answered. Address communications to Dr. W. D. Stovall, State Laboratory of Hygiene, Madison, Wis.

SOURCES OF INFECTION*

CASES AND CARRIERS

By DON M. GRISWOLD, M.D., D.P.H.

Associate Professor of Hygiene, State University, Iowa

We hear from time to time of some very weird sources of infection. From one place we hear that letters piled away in a trunk for 27 years were a source of scarlet fever. Now by definition a source is a place in which infectious material grows, multiplies and increases itself. If we would exclude milk, and a few other special matters, we find that the principle source of infectious material is the case of the disease in the human being. It is there that the infectious agent finds temperature, moisture and soil to its liking and grows luxuriantly during the early stages of the disease.

In fatal, fulminating cases this growth goes on almost unretarded, while in acute infectious diseases of short duration the defensive devices of the body are brought into play and ultimately prevent growth and multiplication. It is evident then that the human case of the disease is the greatest source of infection if we are to measure this either by the amount of infectious material given off or by the virulence of the organisms elimin-

ated. If, then, we propose to institute preventive methods for the spread of infection it is here that we must center our attack for no doubt somewhere around 90 per cent of the cases of infectious diseases and infectious agents come more directly or indirectly from another case.

Consider for a moment the spread of measles, and whooping cough. Here we have two diseases in which, unfortunately, the characteristic symptoms of the disease, and the ones by which they are usually diagnosed, do not present themselves for 24 to 48 hours after the onset of illness. On the basis of careful field studies some epidemiologists are inclined to think that certain cases of measles and whooping cough give off infectious material for as long a period as 5 days before the characteristic symptoms of whooping cough or the characteristic measles rash occurs. In studying many outbreaks of these diseases I have come across instances that could only be explained on the basis of this comparatively long period of infectiousness prior to the characteristic symptoms. If then we are going to do anything in the prevention of measles and whooping cough we must segregate those cases at the onset of illness, which is 2 to 5 days before any characteristic symptom occurs. All of us with experience know full well of the many mild, or abortive cases of scarlet fever encountered in a busy practice. Let no health officers or health organizations flatter themselves that they are getting at the source of the spread of infection as long as these sources are walking the streets. Cases are and will remain for some time to be the most potent source of infection. Mild, missed and abortive cases will long remain more dangerous to the public at large than frank, severe or typical cases. Attention then must be centered around the fact that the largest amount of the most virulent infections comes from cases of disease.

The next most important source of infection is the human carrier of infectious agents. With the exception of the incubatory carrier all carriers are immune individuals. Notwithstanding their immunity to the disease their tissues are a more or less acceptable soil for the growth and reproduction of the infectious agent.

An individual who is a carrier of infectious agents, while not manifesting the characteristic symptom of the disease, is an acceptable host from

*Read before the Interstate Post-Graduate Assembly at Milwaukee, October, 1924.

the standpoint of the biological requirements of the infectious agent. The body cells and the bacterial cells live in a syncytic relation. It is, as if there were two elements involved in immunity. One element would be the immunity of the body against the mere presence of the infectious agent. The other element would be the immunity of tissues against the toxic products of this parasitic growth. The susceptible individual has neither of these while the carrier has immunity against the toxic products if any are formed, but he does not have immunity against the invasion of the infectious agent.

Infectious agents from carriers are frequently, but not always, far less virulent than those from an active case of the disease as is shown by the studies made in many laboratories. That there is a degree of virulence in organisms from carrier cases is well known, and to this fact alone can be attributed epidemics which carriers frequently cause.

The striking variations reported in the virulence of the organisms isolated from diphtheria carriers attracted my attention some years ago.

The variations were too wide to be explained on any other basis than that we were dealing with two or more factors. Each factor could remain constant within itself but with the varying proportions of each factor as a component of the whole, the results of various investigators were bound to be vastly different and confusing.

The problem was then to unscramble the carriers in such a way that the various factors would be grouped by themselves and could be studied alone.

The grouping which we now use is the result of "trial and error method." It utilizes the information received from the laboratory to its fullest extent and makes it an integral part of the working program of the field epidemiologist. A sound medical or surgical diagnosis is based upon a history, a physical examination and laboratory reports, so are the sound administrative public health measures based upon case records, epidemiological investigations and laboratory reports. If these cannot be correlated and brought into harmony, chaos and confusion results to the detriment of public health. The classification of carriers used is one that has a basis on all three factors that go to make up a sound diagnosis.

For the purpose of co-ordinating the office, field and laboratory studies in diphtheria carriers we have used the following classifications:

1. Incubatory.
2. Convalescent.
3. Direct Contact.
4. Remote Contact.

Experience has shown that this classification is sound in principal and practice. This classification brings the office, field and laboratory studies into closer harmony and co-operation than any other grouping of the facts that we have tried.

INCUBATORY CARRIERS

An incubatory carrier is the individual upon whom we have identified infectious agents within the incubation period prior to the onset of the clinical symptoms. Those of us who have taken throat cultures in large numbers know full well that by the time the report returns from the laboratory some children will be found ill with diphtheria. These children carried the organisms for a short space of time without symptoms, hence they are carriers. They developed the disease within the incubation period from the culture taking so they were incubating the disease at that time. They are, therefore, called incubatory carriers. Incubatory carriers harbor organisms that are 100% virulent. They have been tested on human individuals and proved so, which is probably better than the test on guinea pigs.

The degree of danger from incubatory carriers is high because of the fact that the bacilli are of disease causing type in all instances.

The length of time of the menace from incubatory carriers depends upon how soon striking symptoms present or on how long it takes the epidemiologist to locate the individual. Well directed epidemiological work on incubatory carriers will materially reduce the amount of diphtheria spread by mild, missed or abortive cases.

All known carriers should be given daily inspection for the maximum period of incubation. By this means the individual who is an incubatory carrier can be segregated at the first rise of temperature or other clinical symptoms.

If he can carry virulent bacilli for a period longer than the incubation period, he is an immune and does not need antitoxin, Schick Test or toxin-antitoxin mixture.

Probably all cases of diphtheria might be con-

sidered incubatory carriers for that short period between the time they have connected up with the infectious agent and the time the clinical symptoms occur.

If careful throat cultures are made during this time the bacilli will be found and the person is designated as an incubatory carrier. Sometimes on receipt of the laboratory report these cases will merely be in the sorethroat stage. The etiology of this sorethroat having been determined bacteriologically, the case should be comparatively mild if antitoxin be given in adequate doses immediately.

CONVALESCENT CARRIERS

A convalescent carrier is of course an individual who harbors infectious agents after the clinical symptoms have ceased. These individuals have an immunity to the toxin of the disease but do not possess sufficient bacteriolytic substance to prevent multiplication of the causative organism. These individuals are of interest in the spread of infectious diseases chiefly because of their mobility.

Several well directed contagious disease hospitals and health departments use the following method of releasing persons from diphtheria quarantine.

Nose and throat cultures are made daily after the twelfth-day of illness and the patient released from quarantine when two successive sets of these cultures fail to show the presence of diphtheria bacilli.

In a careful study of over one thousand cases released in this way it was found that the stay in the hospital was as follows:

1 week	100%
2 weeks.....	64%
3 weeks.....	29%
4 weeks.....	16%
5 weeks.....	8%
6 weeks.....	4%
7 weeks.....	2%
More than 7 weeks.....	2%

It was striking that it took eight weeks to reduce the number of convalescent carriers to 2%. This is about the proportion found in the population at large.

When this point was reached, virulence tests were made and the patient released, if the organism was found to be non-virulent. Eighty-five to 90% of the convalescent carriers of diphtheria, that we have studied, have virulent organisms and they

constitute a real menace to the control of the spread of infections. Our figures show however, that as we recover the organisms further and further from the time of the attack the percentage of virulent organisms falls. This study is not ready to report at this time but will be presented later.

DIRECT CONTACT CARRIERS

The direct contact carrier is a carrier who is in direct contact with the case. Although he gets his organisms directly from the case where they are most virulent his immunity is sufficiently high to prevent the development of the disease. This individual usually has a high immunity and if the experience is repeated, comes to have little fear of contracting contagion. Many physicians and nurses are in this group. I have several times used diphtheria bacilli from my own throat for class-room demonstration. On one occasion I used a meningococcus for class work which I had recovered from my own throat.

Direct contact carriers are always immune and always highly immune. If I had evidence that a person had been a carrier of virulent diphtheria bacilli for a period longer than the incubation period of the disease I would feel that this person was immune as thoroughly as I would if he had a negative Schick test. A direct contact carrier is immune and will not contract the disease until some unforeseen circumstance takes away this immunity, which does not frequently occur.

As a result of careful studies, as yet too small to use for generalizations, it appears that from one-fifth to one-third of all people coming in daily contact with a diphtheria patient will pick up and retain the diphtheria bacillus. The proportion of these people who develop the disease as a result of this is in direct relation to the age group susceptibility.

Where there are no children in the quarantine, the attack rate of the disease is low because about two-thirds of all adults are immune to diphtheria. This means that there is a correspondingly high rate of direct contact carriers. Diphtheria bacilli have been of virulent type in approximately 50% of the direct contact carriers we have examined. They, therefore, constitute a real menace to this extent and there should be adequate administrative control.

REMOTE CONTACT CARRIERS

A remote contact carrier is a carrier who has

not been in contact with the case but who has obtained his organisms probably from some other carrier. This type of carrier is usually immune but great reliance cannot be placed on this evidence. If he is harboring virulent organisms for a period longer than the incubation period of the disease he is of course immune.

If, however, the organisms found are non-virulent diphtheria bacilli, this finding has little or no significance regarding the immunity of the individual.

Organisms recovered from these remote contact carriers are found to be non-virulent in such a large proportion of cases that they can all be considered non-virulent so far as public health administration is concerned. Meader of Detroit, recently allowed 97 children who were remote contact carriers to return to school and no case of diphtheria developed among the other school children that was traceable to these remote contact carriers. Evidence is therefore accumulating that our great fear of this type of carrier is unfounded by fact. When we are fully convinced of this, we will let this type of carrier go and come without let or hindrance.

To illustrate by an example: After the cases in a certain outbreak of diphtheria were quarantined, cultures were taken of all the school children's throats. Of the 330 children only 7 were found to be harboring diphtheria bacilli: a rather small proportion for the season of the year. Of these 7, two developed the disease within the incubation period and were therefore incubatory carriers. There had been no cases of diphtheria among the other five, therefore none of these were convalescent carriers.

One of these children was, however, from a family just released from quarantine for diphtheria and was therefore a direct contact carrier. The other four were remote contact carriers.

The disposition of these cases was as follows: The incubatory carriers were showing early symptoms of diphtheria when the laboratory report was received. They were immediately quarantined and given adequate doses of diphtheria antitoxin. In this particular study there were no convalescent carriers, but if there had been, they should have been placed in the modified quarantine provided for diphtheria carriers.

The direct contact carrier was placed in the

modified quarantine until the culture would show non-virulent organisms or until two successive negatives could be obtained, 24 hours apart.

The remote contact carriers were kept under observation for the incubation period and then allowed to return to school without reference to the flora of their throats.

CONCLUSIONS

1. Human beings with and without symptoms of any disease are the greatest factor in the spread of infections.

2. Competent follow-up work on carriers will do much in locating mild missed, or abortive cases which spread much infection.

3. To adequately engage the carrier problem it must be sub-divided into its constituent parts, rather than to outline one administrative procedure for all parts of the problem.

4. The investigation of the contacts of incubatory carriers will yield much information necessary to prevent the spread of infection, because these cases are carrying virulent organisms.

5. The convalescent carrier should be subjected to administrative control because of the high proportion of virulent organisms he carries.

6. One-fifth to one-third of the people in contact with cases of diphtheria in the home pick up the organisms to which they are exposed. One-half to three-fourths of these people are known to be harboring organisms of virulent strain.

7. Remote contact carriers of diphtheria have so little significance in the public health problem that they are included here only for the purpose of completeness. The few of them that are found virulent can be easily explained as having been in contact with mild, missed or abortive cases without their knowledge.

8. More serious study of the outcome of contacts with incubatory carriers is warranted. More control of the convalescent carrier is warranted. More strict isolation of the patient to reduce the number of direct contact carriers is warranted. More leniency with remote contact carriers can be allowed with safety to all concerned.

A vacancy in the position of bacteriologist in the Oshkosh Cooperative Laboratory was filled by the appointment of Miss Florence Mason, Louisville, Ky., who took charge January 8th.

PUBLIC HEALTH NOTES
FROM THE
STATE BOARD OF HEALTH

Well children in a family where there are mumps can attend school. Children recovering from mumps can return to school after one week from the time the swelling disappears.

Advice was asked by a county judge as to the propriety of forcibly committing to a sanatorium a man with tuberculosis, who is surrounded in his home by children and living carelessly. The answer was affirmative. Such commitment was declared especially urgent in cases where little children are closely concerned in the danger of contact.

If pertussis vaccine diminishes the severity of whooping cough, and the period of the disease is actually diminished by such treatment, should not the cases be released before the end of the six weeks' period? The board answered in the negative, on the ground that there is no evidence yet that the vaccine lessens the period of communicability. Moreover, the rules cannot be modified except by action of the state board itself.

Inquiries as to the availability of the preventive material for scarlet fever, developed by the Drs. Dick of Chicago, were answered by the statement that until certain further tests and verification of certain claimed facts are made, the preparation cannot be fully endorsed. The board said: "We are anxiously looking forward to this preparation as a hopeful means of reducing the incidence of scarlet fever as well as lessening the number of deaths, and hope to be able to report a distribution of this preparation in the near future."

The law is clear in providing that all applicants for admission to state or county sanatoria must be citizens of the state at the time application is made. Temporary relief can be furnished, however, if the family is indigent.

There is no necessity for cancelling the proposed annual field work program by library students, provided they are vaccinated, the Free Library Commission was advised, in answering an

inquiry growing out of the existing smallpox situation in many localities.

Local boards of health, according to an opinion given, have broad powers, and if it is the opinion of the local board that exclusion of unvaccinated children from school is necessary when smallpox is in the district, it is this department's opinion that such an order can be enforced lawfully.

Authority to disinter a body for postmortem purposes is vested in the local health officer, whose written approval must be obtained.

Under no circumstances should an attempt be made to give toxin-antitoxin treatment for the prevention of diphtheria at the expense of the school district without the full knowledge and approval of the school board.

The safe procedure is to prohibit the taking of library books into a home where a tuberculous patient lives. When library books from such a house are returned, they should be withdrawn from circulation and the leaves opened in direct sunlight for several days.

It was declared that present indications are that the typhoid mortality in 1924 will be around 40, or at the rate of $1\frac{1}{2}$ per 100,000 population, establishing by far the lowest typhoid rate in the state's history. The 1923 typhoid deaths totalled 60, which was the lowest mortality up to that time.

A clergyman submitted a series of questions concerning the danger of the communion chalice in transmitting infection. The Board's detailed answers concluded with the statement that it is possible to convey disease by the communion cup as well as the common drinking cup, and that "in order to establish that degree of safety which individuals are entitled to from our present knowledge of the avenues of infection, individual cups should be used." The germicidal effects of communion wine were regarded as "almost negligible."

The right of a chiropractor to advertise and hold himself out as a "doctor" of chiropractic was questioned by a citizen. The complaint was referred to the state board of medical examiners, which has jurisdiction.

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LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES

Table with 3 columns: County, President, Secretary. Lists officers for 9 counties including Ashland-Bayfield-Iron, Barron-Polk-Washburn-Sawyer-Burnett, Brown-Kewaunee, Calumet, Chippewa, Clark, Columbia, Crawford, Dane, Dodge, Door, Douglas, Eau Claire and Associated Counties, Fond du Lac, Grant, Green, Green Lake-Waushara-Adams, Iowa, Jefferson, Juneau, Kenosha, La Crosse, La Fayette, Langlade, Lincoln, Manitowoc, Marathon, Marinette-Florence, Milwaukee, Monroe, Oconto, Oneida-Forest-Vilas, Outagamie, Pierce, Portage, Price-Taylor, Racine, Richland, Rock, Rusk, Sauk, Shawano, Sheboygan, St. Croix, Trempealeau-Jackson-Buffalo, Vernon, Walworth, Washington-Ozaukee, Waukesha, Waupaca, Winnebago, Wood.

SOCIETY PROCEEDINGS

Council Appoints Committee to Actively Supervise Medical Ethics; Adopts Budget for 1925 Expenses

The Council was called to order by the Chairman, Dr. Edward Evans, at 11:00 A. M., Saturday, January 3rd, 1925, at the University Club, Milwaukee. Windesheim, Harper, Bock, Evans, Redelings, Smith and Dearholt; Treasurer Sleyster, Vice-Presidents Jegi and Curl, Secretary Crownhart and Dr. S. S. Hall, Minneapolis. Councilors Cunningham, Mitchell and Rogers; Vice-President J. Gurney Taylor, and Committee Chairmen Stovall, Patek, and Carl Henry Davis came in shortly after the formal calling of the roll. Absent: Councilors Dodd and Connell.

1. Election of Chairman of the Council. Moved by Dr. Smith, seconded by Dr. Dearholt, that Dr. Edward Evans, La Crosse, succeed himself as Chairman of the Council. Motion put by the Secretary and unanimously carried.

2. There being no correction to the minutes of the last meetings of the Council as published in the Wisconsin Medical Journal, December, 1924, they were approved as published.

3. Election of Executive Secretary-Managing Editor. Moved by Dr. Dearholt, seconded by Dr. Smith, that Mr. J. G. Crownhart be re-elected for 1925. Motion carried.

4. Election of Treasurer. Moved by Dr. Smith, seconded by Dr. Windesheim, that Dr. Rock Sleyster be re-elected Treasurer. Motion carried. Moved by Dr. Redelings, seconded by Dr. Dearholt, that Dr. Sidney S. Hall, Minneapolis, be declared Treasurer Emeritus of the Society. Motion carried unanimously.

5. Election of Editorial Board of the Wisconsin Medical Journal. Moved by Dr. Windesheim, seconded by Dr. Redelings, that the present board be re-elected. Motion carried and Drs. Oscar Lotz, Milwaukee; Hoyt E. Dearholt, Milwaukee, and Joseph F. Smith, Wausau were declared elected. Moved by Dr. Sleyster, seconded by Dr. Mitchell, that the Chairman express the appreciation of the Council to Drs. Lotz and Dearholt for their work on the Journal during the past year.

6. Report of the Committee on Public Policy and Legislation. Dr. O. B. Bock, chairman, reported for the Committee, outlining the lay edu-

cational work carried on during the past year and the recommendations of the Committee with respect to public health legislation. A general discussion followed the report.

HONORARY MEMBERS ELECTED

7. Election of Honorary Members to the State Medical Society of Wisconsin.

Moved by Dr. Dearholt, seconded by Dr. Redelings, that the mail ballot electing Dr. W. A. Edwards, Chetek, to honorary membership be confirmed. Motion carried unanimously.

Moved by Dr. Bock, seconded by Dr. Dearholt, that the mail ballot electing Dr. J. F. Pritchard, Manitowoc, to honorary membership be confirmed. Motion carried unanimously.

Moved by Dr. Bock, seconded by Dr. Redelings, that Dr. S. S. Hall, Treasurer Emeritus, Minneapolis, be declared an honorary member. Motion carried unanimously.

Moved by Dr. Harper, seconded by Dr. Redelings, that Dr. Charles Gorst, Madison, former superintendent of the state hospital at Mendota, be declared an honorary member. Motion carried unanimously.

Moved by Dr. Sleyster, seconded by Dr. Harper, that Dr. W. F. Whyte, Watertown, former president of the state board of health, be declared an honorary member. Motion carried unanimously.

Moved by Dr. Redelings, seconded by Dr. Sleyster, that Dr. B. C. Brett, Green Bay, a past officer of the State Society and long active in the work of the Society, be declared an honorary member. Motion carried unanimously.

At this time (12:20 P. M.) a recess was taken for lunch.

The Council re-convened at 1:30 P. M. Dr. Evans presiding.

8. Report of the treasurer. Dr. Rock Sleyster, treasurer, presented a financial statement (Exhibit 1) showing the condition of the Society as of January 1st, 1925. It was pointed out that the Society now has a surplus of \$15,000. Moved by Dr. Redelings, seconded by Dr. Harper, that the report of the treasurer be accepted. Motion carried.

BUDGET ACCEPTED

9. Budget for 1925. Treasurer Sleyster presented the budget for 1925 (Exhibit 2). The treasurer pointed out that at the present time \$2.00 of each member's dues is turned over to the Journal. In turn the Journal pays one-third of the salary of the Secretary-Managing Editor, now amounting to \$116 per month. The Treasurer recommended that this sum be reduced to \$100 per month so that the salary of the Executive Secretary-Managing Editor would be \$1,200 annually from the Journal, plus the amount set by the Council (to be expended from the General Fund of the Society).

The secretary explained that the Journal is now on a self-sustaining basis. He pointed out that it was the policy of the Editorial Board not to make the Journal a revenue-producing agency, but rather to make it the best possible journal within the financial means available.

The budget was then explained in detail by the Treasurer.

A general discussion was held on the question of appropriating the sum of \$100 to a committee on a goiter survey, appointment of which was authorized by the 1924 House of Delegates. Those participating in the discussion included Drs. Redelings, Harper, Dearholt, Patek, Sleyster and Smith. It was moved by Dr. Rogers, seconded by Dr. Smith, that Dr. A. J. Patek, Milwaukee, be constituted the representative of the Society in cooperating in any needed survey with special committees now appointed by the Milwaukee County Medical Society and the Milwaukee Academy of Medicine, and to cooperate with the State Board of Health: Dr. Patek to report to the 1925 House of Delegates: this work to be done without appropriation in view of limited funds available. Motion carried.

A discussion followed, the secretary withdrawing, on remaining recommendations of the treasurer. Moved by Dr. Dearholt, seconded by Dr. Redelings, that the recommendations of the treasurer, with the exception of the appropriation to a Committee on a Goiter Survey, be adopted. Motion carried unanimously.

It was then pointed out by the chairman, that should further funds become available, additional appropriations as made by the 1924 House of

Delegates might be approved at the June meeting of the Council.

10. Report of the secretary. The secretary reported that the membership on December 31st, 1924, was 1,952 as compared to 1,910 in 1922, and 1,884 in 1923. Of the total number of members, 63 per cent availed themselves of the privilege of securing medical defense.

The secretary then reported what had been accomplished in an effort to make program material available to all county societies without expense, pointing out that any society might have at least one speaker for three meetings a year, without expense, as announced in the Service Column of the Journal. He reported that efforts were being made to secure additional material.

The present lay educational work of the Society was discussed in detail and the secretary announced that upwards of 6,000 copies of the Second Annual Lay Issue of the Wisconsin Medical Journal will be in the mails for lay distribution, without advertising, on January 15th, 1925.

The chairman declared the report accepted.

11. Condition of county societies. After discussion, it was moved by Dr. Mitchell, seconded by Dr. Smith, that the chairman be authorized to take any steps needed in suggesting a combination of the Juneau and Monroe County Societies. Motion carried. Dr. Mitchell reported officially the combination of the Dunn-Pepin County Medical Society with the Eau Claire County Medical Society, the combined society to be known as the Eau Claire and Associated Counties Medical Society.

COMMITTEE ON ETHICS

12. Ethics. The secretary presented a proposed advertisement submitted to the Journal, together with correspondence from the proposed advertiser to the president of the Society. The secretary also presented material in his files bearing upon the proposed advertiser. It was the unanimous opinion of the Council that the advertising be not accepted on the grounds that it did not comply with the ethical requirements and policies of the Journal or Society.

The secretary was then called upon to present such additional questions under the head of Medical Ethics as had come to his attention. Several files were produced and a general discussion of ethics followed.

It was the concensus of opinion of the Council that the code of ethics was not violated by insertion in a professional card of the sentence, "Chlorine Treatments Given," or a similar sentence of like wording that made no reference to type of apparatus used, or made no reference to any therapeutic claim for such treatments and that was in entire keeping with the usual and ethical form of a professional card.

It was moved by Dr. Sleyster, seconded by Dr. Smith, that the chairman of the Council designate a committee of three to pass upon matters of questionable medical ethics. And, that where the committee was of the opinion that the code of ethics were violated or may have been violated, that the committee address the member or members concerned, asking for an explanation; and, that in the discretion of the committee the questionable conduct or fac-simile of the publication containing questionable publicity or advertising be published on a special page to be instituted in the Journal, together with the statement of the member or members concerned. And, that this be done only after a due statement of this policy of the Society has been made public in the Wisconsin Medical Journal. The motion was carried unanimously and the chairman announced the committee to consist of the Chairman, Dr. Edward Evans, La Crosse; the Secretary, Mr. J. G. Crownhart, Milwaukee, and the Treasurer, Dr. Rock Sleyster, Wauwatosa.

13. The secretary was instructed to express the deep sympathy of the Council and officers to

Councilor Dr. F. Gregory Connell of Oshkosh, at present ill with typhoid fever.

The Council adjourned at 4 P. M. to call of the chairman.

J. G. CROWNHART,
Secretary.

REPORT OF THE TREASURER

January 3, 1925

To the Council of the State Medical Society:

I am submitting herewith a statement of the funds of the State Medical Society as of December 31, 1924, held by me as Treasurer.

On September 19, 1924, there was transferred to me by Dr. Sidney Hall, as per attached letters, the following funds:

No. 59678—Treasury Certificate...	\$1,000.00	
No. 60334—Treasury Certificate...	1,000.00	
No. 60335—Treasury Certificate...	1,000.00	
No. 60336—Treasury Certificate...	1,000.00	
No. 60337—Treasury Certificate...	1,000.00	
No. 60338—Treasury Certificate...	1,000.00	
No. 60339—Treasury Certificate...	1,000.00	
No. 19052—Treasury Certificate...	500.00	
No. 79524—Treasury Certificate...	1,000.00	
No. 25138—Treasury Certificate...	500.00	
No. 57459—Treasury Certificate...	1,000.00	
No. 25448—Treasury Certificate...	500.00	\$10,500.00
General Fund		7,421.90
Medical Defense Fund		2,728.66
		\$20,650.56

On September 29, 1924, I purchased out of the General Fund Certificates of Deposit of the First Wisconsin National Bank, Milwaukee, to the amount of \$4,500.00, bearing 3% interest. This now makes a total of \$15,000.00 in invested securities. Interest on the above securities amounts to \$633.72 per year which is added to the General Fund.

The following is a statement of the funds as of December 31, 1924:

	General Fund	Medical Defense Fund	
Receipts:			
Sept. 19—Dr. Sidney Hall.....	\$7,421.90	\$2,728.66	
Sept. 19—Dr. Sidney Hall.....	253.50	42.00	
Sept. 19—Interest on Treasury Certificates.....	249.36		
Sept. 22—J. G. Crownhart.....	23.38		
Oct. 1—J. G. Crownhart.....	108.75	8.00	
Oct. 17—J. G. Crownhart.....	15.18		
Nov. 3—J. G. Crownhart.....	170.25	14.00	
Nov. 17—J. G. Crownhart.....	81.78		
Nov. 17—J. G. Crownhart.....	471.22		
Nov. 25—J. G. Crownhart.....	16.64		
Dec. 1—J. G. Crownhart.....	221.25	58.00	
Dec. 3—J. G. Crownhart.....	19.50		
Dec. 31—J. G. Crownhart.....	53.25		
	\$9,105.96	\$2,850.66	\$11,956.62
Disbursements:			
Sept. 30—Bills approved by Secretary*.....			\$5,248.85

Oct. 31—Bills approved by Secretary.....	643.35	
Nov. 30—Bills approved by Secretary.....	928.57	
Déc. 31—Bills approved by Secretary.....	2,070.05	\$ 8,890.82
		<hr/>
Balance cash in bank.....		3,065.80
Balance Investment Securities.....		15,000.00
		<hr/>
Total Funds December 31, 1924.....		\$18,065.80

Summary of Funds:

General Fund	\$ 215.14	
Medical Defense Fund	2,850.66	
	<hr/>	
	\$ 3,065.80	
**Treasury Certificates	10,500.00	
***Certificates of Deposit.....	4,500.00	\$18,065.80

*Includes certificate of deposit purchased to the amount of \$4,500.

**Held in safety deposit box at First

***Wisconsin National Bank.

ROCK SLEYSER,
Treasurer.

BUDGET
S—M—S—W
1925

	EXPENSE			INCOME	
	Minimum	Maximum	Recom- mended	Minimum	Maximum
Estimated Income:	1.	2.	3.		
Dues				\$13,000.00	\$13,700.00
Investments				633.72	633.72
				<hr/>	<hr/>
Total				\$13,633.72	\$14,333.72
Estimated Expenditures:					
Office Expense:					
Salary—Executive Secretary	\$ 3,000	\$ 3,800	\$ 3,800		
Salary—First Assistant	1,140	1,140	1,140		
Salary—Second Assistant	450	900	450		
Office Service—Cost of Light, Heat, and Janitor Service	300	600	300		
Phone, Postage, Supplies	600	600	600		
Traveling	900	900	900		
Appropriations—1924 H. of D.:					
Legislative Committee	3,000	3,500	3,000		
Goiter Survey		100	100		
Committee on Cancer		575			
Committee on H. & Pub. Ins.....	300	500	500		
For program material		300			
Other Expense:					
Delegates A. M. A.....	250	300	300		
Officers, Committees, Council	350	500	500		
Reserve for Annual Meeting		500	500		
	<hr/>	<hr/>	<hr/>		
	\$10,290	\$14,215	\$12,090		

Total Budget adopted—Column 3 less Goiter appropriation\$11,990

ASHLAND-BAYFIELD-IRON

The Ashland-Bayfield-Iron County Medical Society held its annual banquet December 19 at the Knight Hotel, Ashland, at which time the following officers were elected: President, C. J. Smiles, Ashland; Vice-President, W. E. Fawcett, Bayfield; Secretary-Treasurer, R. L. Gilman, Ashland.

BROWN-KEWAUNEE

The Brown-Kewaunee County Medical Society held its annual meeting at the Beaumont Hotel, Green Bay, on December 9. Election of officers followed a six o'clock dinner in the private dining room of the hotel. It resulted as follows: President, D. H. Gregory, De Pere; Vice-President, P. R. Minahan, Green Bay; Secretary-

Treasurer, F. M. Harris, Green Bay; Delegate, S. F. Rudolf, Green Bay; Alternate, Eugene Knox, Green Bay.

BROWN-KEWAUNEE

Dr. R. C. Mullenix, professor of biology at Lawrence College, Appleton, addressed the Brown-Kewaunee County Medical Society at a meeting on January 13. His subject was "The Mechanism of Animal Reaction" and was of great interest to the physicians.

CHIPPEWA

Members of the Chippewa County Medical Society attended a six-thirty dinner at Hotel Northern at Chippewa Falls on December 19. Dr. H. B. Sears of Madison spoke on the "Dick Test." The following new officers were elected for 1925: President, L. A. Larson, Colfax; Vice-President, J. A. Foster, Cornell; Secretary-Treasurer, C. A. Cooper, Colfax.

The following members were present at the meeting: Drs. Somers, Hatleberg, Larson, Cooper, Foster, Hurd, Ellenson, Williams, Nedry, McCarty, McRae, McHugh and Haddow.

COLUMBIA

Columbia County Medical Society held its annual meeting on December 11 at Wyocena. Dr. M. Q. Howard, Wauwatosa, spoke on mental and nervous diseases. Officers elected were: President, J. A. Mudroch, Columbus; Vice-President, A. F. Schmeling, Columbus; Secretary-Treasurer, H. E. Gillette, Pardeeville; Delegate, A. F. Schmeling; Alternate, H. E. Gillette.

CRAWFORD

Election of officers at a meeting of the Crawford County Medical Society resulted as follows: President, W. W. Coon, Gays Mills; Vice-President, J. J. Kane, Prairie du Chien; Secretary-Treasurer, T. E. Farrell, Seneca; Delegate, A. J. McDowell, Soldiers Grove; Alternate, C. A. Armstrong, Prairie du Chien.

DANE

The Dane County Medical Society held its annual meeting and a dinner on December 17. Mr. Ralph W. Jackman spoke on Medical Aspects of the Volstead Act; Dr. J. A. E. Eyster: Some Points in the Diagnosis of Chronic Valvular Heart Disease; and Dr. F. J. Hodges on the Value of X-ray in the Diagnosis of Heart Disease. The following officers were elected for 1925: President, E. S. Sullivan, Madison; Vice-President, Wm. D. Stovall, Madison; Secretary-Treasurer, Louis Fauerbaeh, Madison; Delegates, W. H. Sheldon, Madison, and H. P. Greeley, Madison; Alternates, E. V. Brumbaugh, Madison, and Ira Sisk, Madison.

DANE

The members of the Dane County Medical Society held a meeting on January 21 at the University Club, Madison. Mr. Sidney H. Stuart gave a talk on "Some Experiences in Paris;" Dr. H. P. Greeley, "Case Reports;" and Dr. H. C. Bumpus, Rochester, Minn., "Treatment of Urinary Infections."

DOUGLAS

The annual meeting of the Douglas County Medical Society was held at Superior on December 3. The following officers were elected: President, A. L. Weisgerber; Vice-President, C. B. Rydell; Secretary-Treasurer, G. J. Hathaway; Delegate, T. H. Shastid; Alternate, John Baird; Board of Censors, R. C. Smith, L. A. Hoffmeir, C. W. Giesen, all of Superior.

GRANT

Members of Grant County Medical Society met in twenty-fourth annual session at Lancaster, December 2. The program consisted of the following papers: "Some Recent Advances in Urological Surgery," Joseph H. Schrup, Dubuque; "The Use of Oxbone for Internal Fixation in Open Treatment of Fractures," Wilson Cunningham, Platteville; "The Dick Test and Prophylaxis of Scarlet Fever," H. E. Marsh, Madison. Discussion followed the reading of each of these papers.

Election of officers resulted as follows: President, F. E. Blackburn, Cassville; Vice-President, E. C. Howell, Fennimore; Secretary-Treasurer, M. B. Glasier, Bloomington; Delegate, M. A. Bailey, Fennimore; Alternate, J. C. Doolittle, Lancaster; Censor, E. Kraut, Lancaster.

There were present at the meeting: Drs. J. C. Betz, E. H. Spiegelberg, T. S. Tuffley, Wilson Cunningham, C. M. Schuldt, C. A. Andrews, Soules, G. C. Buek, F. E. Blackburn, F. H. Baldwin, H. J. McLaughlin, M. B. Glasier, E. C. Howell, M. A. Bailey, J. C. Doolittle, S. W. Doolittle, Rush Godfrey, J. H. Fowler and E. Kraut. Dr. H. E. Marsh, Dr. Campbell of Madison, Dr. Joseph H. Schrup and Dr. Quinn of Dubuque, were guests of the society.

GREEN LAKE-WAUSHARA-ADAMS

The officers for 1925 of the Green Lake-Waushara-Adams County Medical Society are: President, B. E. Scott, Berlin; Vice-President, J. S. Foat, Ripon; Secretary-Treasurer, A. J. Wiesender, Berlin; Delegate, W. E. Buekley, Redgranite; Alternate, Orvil O'Neal, Ripon.

GREEN LAKE-WAUSHARA-ADAMS

The members of the Green Lake-Waushara-Adams County Medical Society entertained wives and friends at a social gathering at Ripon January 16. During the course of the evening Dr. C. T. Combs of Oshkosh delivered an address on "Fractures and Their Treatment."

JEFFERSON

The Jefferson County Medical Society held its annual meeting at Lake Mills on December 11. Officers for the year 1925 are: President, L. H. Nowack, Watertown; Vice-President, W. C. Becker, Watertown; Secretary-Treasurer, A. C. Nickels, Watertown; Delegate, H. O. Caswell, Ft. Atkinson; Censor, Phillip Leicht, Lake Mills.

Dr. Robert Von Valsah, Madison, spoke on Acute Articular Rheumatism, and Dr. Roland S. Cron, under the auspices of the joint committee on Maternal Welfare, spoke on "Toxemias of Pregnancy and their Treatment."

JUNEAU

The annual meeting of the Juneau County Medical Society was held at Mauston on December 16. Dr. C. A. Vogel of Elroy was elected president of the society and Dr. A. T. Gregory of Mauston, secretary-treasurer.

Dr. Edward Evans of La Crosse read a paper entitled "The General Practitioner" and Dr. H. E. Marsh, Jackson Clinic, Madison, gave an address on the prevention and treatment of scarlet fever.

KENOSHA

At a recent meeting of the Kenosha County Medical Society Dr. W. C. Stewart of Kenosha was elected president and Dr. H. A. Binnie re-elected secretary-treasurer.

LA CROSSE

The La Crosse County Medical Society elected new officers for 1925 on December 11. They are as follows: President, E. H. Townsend; Vice-President, S. B. Gunderson; Secretary-Treasurer, Edward T. Evans; Delegate, W. E. Bannen; Alternate, E. Smedal, all of La Crosse.

LANGLADE

The officers for 1925 in Langlade County are as follows: President, L. A. Steffen; Vice-President, E. R. Murphy; Secretary-Treasurer, J. C. Wright; Delegate, J. C. Wright; Alternate, G. E. Moore, all of Antigo.

LINCOLN

The newly elected officers in Lincoln County are: President, C. C. Walsh, Merrill; Secretary-Treasurer, W. H. Bayer, Merrill; Delegate, W. H. Bayer, Merrill; Alternate, George Baker, Tomahawk.

MANITOWOC

At a meeting of the Manitowoc County Medical Society held December 1, the following officers were elected: President, W. A. Rauch, St. Nazianz; Vice-President, C. L. R. MacCollum, Manitowoc; Secretary-Treasurer, C. J. Skwor, Michicot; Delegate, J. Kelly, Cato; Alternate, E. G. Festerling, Reedsville; Censor, J. L. Shaw, Manitowoc.

MARATHON

Newly elected officers of Marathon County Medical Society for the year 1925 are: President, E. M. Macauly, Wausau; Vice-President, J. A. Jackson, Mosinee; Secretary-Treasurer, J. M. Freeman, Wausau; Delegate, L. E. Spencer, Wausau; Alternate, A. B. Rosenberry, Wausau; Censor, A. B. Rosenberry.

MARINETTE-FLORENCE

The Marinette-Florence County Medical Society held its annual meeting December 12. Dr. F. A. Davis of the University of Wisconsin, Madison, presented a paper on "Ocular Manifestations in General Diseases." The election of officers resulted in the following being chosen for the ensuing year: President, T. J. Redelings; Vice-President, H. F. Schroeder; Secretary-Treasurer, M. D. Bird; Delegate, A. T. Nadeau; Alternate, J. W. Boren, all of Marinette.

MILWAUKEE

The annual dinner meeting of the Milwaukee County Medical Society was held at Hotel Pfister on December 11. Rev. C. B. Moulinier, president of the Catholic Hospital Association, spoke on "The Standardization of Hospitals." Election of officers resulted in the following: President, R. W. Blumenthal; Vice-President, C. H. Davis; Secretary, E. L. Tharinger; Treasurer, W. M. Jermain.

The Society held a joint meeting with the Milwaukee County Radiological Society January 9. The following program was presented: "Symposium on Diverticula and Diverticulitis of Colon." Etiology, Symptomatology and X-ray Diagnosis, F. W. MacKoy; Pathological Anatomy, E. L. Miloslavieh; Surgical Treatment, Francis McMahon.

ONEIDA-FOREST-VILAS

During a recent meeting of the Oneida-Forest-Vilas County Medical Society Dr. C. D. Packard, Rhinelander, was elected president of the society and Dr. I. E. Schiek, Rhinelander, secretary-treasurer.

OUTAGAMIE

A banquet and meeting was held at Hotel Northern on December 16 by the Outagamie County Medical Society. Election of officers and an interesting program took place. Papers were given by: G. W. Carlson on Infant Mortality—Its Cause and Prevention; Charles Reineck on Puerperal Sepsis; J. B. MacLaren on Eclampsia and C. G. Maes on Maternal Hemorrhage.

The following officers were elected for the ensuing year: President, C. E. Ryan; Vice-President, W. A. Shepard, Seymour; Secretary-Treasurer, E. L. Bolton; Censor for three years, J. B. MacLaren; Delegate, M. J. Sandborn; Alternate, E. F. McGrath.

The following members were present: Drs. Benton, Boyd, Brunckhorst, Bolton, Carlson, Cooney, Dehne, Dohearty, Doyle, Frawley, Laird, Marshall, Maes, McGrath, Mielke, MacLaren, Mills, Morse, Neidhold, Ott, Ryan, Reineck, Ritchie, Sandborn, Shepard and Towne.

OUTAGAMIE

The Outagamie County Medical Society entertained at a banquet for doctors and their wives at Hotel Northern, Oshkosh, on January 15. Dr. J. R. Minahan, Green Bay, spoke on "The Medical Profession."

PORTAGE

A recent election of officers for the Portage County Medical Society resulted in: President, F. A. Marrs; Vice-President, E. P. Crosby; Secretary-Treasurer, F. R. Krembs; Delegate, E. P. Crosby; Alternate, D. S. Rice, all of Stevens Point.

PRICE-TAYLOR

A meeting of the Price-Taylor County Medical Society was held at Park Falls on January 22nd, 1925. The following members were present: Drs. E. A. Riley, J. T. Speck, W. P. Sperry and E. B. Elvis. Drs. L. E. Odell and A. V. DeNeveu were present as guests.

The following officers were elected for 1925: Presi-

dent, Dr. J. S. Dietrich; Vice-President, Dr. J. T. Speck; Secretary, Dr. E. B. Elvis; Delegate, Dr. E. A. Riley, and Alternate, Dr. J. T. Speck. Dr. F. W. Mitchell was elected Censor for three years and Dr. Nystrum was elected Censor for two years.

The following resolution was adopted during the business session:

"Whereas; it has pleased the Supreme Being to take from our midst our brother and friend Dr. C. B. Fenelon—

"Be it resolved, that we regret in the passing away of our friend and colleague, a loss to the medical profession of the county and that we mourn in the decease of Dr. Fenelon the death of an efficient and respected physician.

"Be it resolved that we extend our heartfelt sympathy to the bereaved wife and family.

"Furthermore, be it resolved that a copy of these resolutions be published in the local papers of Phillips, be spread on the records of the Price-Taylor Co. Medical Society and a copy be sent to the Journal of the Wisconsin State Medical Society.

E. A. RILEY, PRES.,

E. B. ELVIS, SECY."

Following the meeting the members and visitors were the guests of Drs. Speck and Riley for a banquet at the home of the former.

E. B. E.

RACINE

The annual meeting of the Racine County Medical Society was held December 11 at St. Mary's Hospital, Racine. Dr. W. W. Bauer, Health Commissioner of Racine, gave a very interesting and instructive talk on Diphtheria Prevention. The following officers were elected: President, W. E. White, Burlington; Vice-President, J. F. Henken, Racine; Secretary-Treasurer, Susan Jones, Racine; Censor, W. A. Fulton, Burlington; Delegate, G. W. Nott, Racine; Alternate, C. O. Schaefer, Racine.

ROCK

The Rock County Medical Society held a meeting at the County Farm on November 25. Dr. Carl Hedblom, Madison, gave a paper on Surgery of the Lung and Dr. A. S. Crawford, Madison, on Surgery of the Brain.

The Society held a meeting at Beloit on December 30. The following officers for 1925 have been elected: President, W. T. Clark, Janesville; Vice-President, E. B. Brown, Beloit; Secretary-Treasurer, G. K. Wooll, Janesville; Delegates, W. A. Mmm and F. W. Nuzum, Janesville; Alternates, P. A. Fox and W. J. Allen of Beloit.

SAUK

The Sauk County Medical Society met at Hotel Warren, Baraboo, November 30. Dr. Greely and Dr. Stovall of Madison were the speakers of the evening.

The Society held another meeting on December 10 at Hotel Huntley, Reedsburg. Dr. Middleton of Madison spoke on "Clinical Manifestations of Pulmonary Tuberculosis" and Dr. Eyster spoke on "Heart Lesions with Clinical Subjects."

SHAWANO

The Shawano County Medical Society elected the following officers for the ensuing year: President, E. L. Schroeder; Vice-President, A. J. Gates; Secretary-Treasurer, R. C. Cantwell; Delegate, A. J. Gates; Alternate, C. E. Stubenvoll.

SHEBOYGAN

The annual meeting of the Sheboygan County Medical Society was held at the Association of Commerce on December 4, and the following officers were elected: President, Otto Gmther; Vice-President, Harry Heiden; Secretary-Treasurer, Howard Curl; Delegate, O. A. Fiedler; Alternate, Arthur Knauf; Counselor, O. B. Bock. An address was given by J. G. Crownhart, secretary of the State Medical Society of Wisconsin.

VERNON

The Vernon County Medical Society held a meeting on January 14 and the following officers were elected: President, H. J. Suttle, Viroqua; Treasurer, W. M. Trowbridge, Viroqua; Secretary, W. H. Remer, Chaseburg.

Dr. R. A. Barlow, Jackson Clinic, Madison, gave an instructive talk on focal infections, with particular reference to the Tonsils and Nasal Accessory Sinuses.

WALWORTH

The Walworth County Medical Society met at Elkhorn on December 10. Mr. J. G. Crownhart of the State Medical Society spoke on the activities of the society. The following members were present: Drs. W. H. McDonald, E. T. Ridgeway, J. W. Doughty, E. J. Fusik, J. M. Marsh, F. J. Meany, T. P. Keenan.

WAUKESHA

The new officers of the Waukesha County Medical Society elected in December are: President, W. H. Oatway, Waukesha; Vice-President, L. W. Egloff, Pewaukee; Secretary-Treasurer, S. B. Ackley, Oconomowoc; Censor, J. F. Wilkinson, Oconomowoc; Delegate, A. W. Rogers, Oconomowoc; Alternate, U. J. Tibbets, Waukesha.

At the January meeting held at "The Spa," Waukesha, Dr. A. W. Rogers spoke on "The Great Benefit of the Full Time State Secretary." The president appointed Drs. B. M. Caples, W. S. Wing and H. T. Barnes on the legislative committee for the year. Dr. C. C. Edmondson, Waukesha, gave an interesting talk on "Dietetics."

WINNEBAGO

The Winnebago County Medical Society elected new officers for 1925 recently. They are as follows: President, J. W. Lockhart; Vice-President, H. J. Haubrick; Secretary-Treasurer, R. H. Bitter; Delegate, J. M. Hogan; Alternate, J. W. Lockhart, all of Oshkosh.

MILWAUKEE ACADEMY OF MEDICINE

The members of the Milwaukee Academy of Medicine held a meeting on December 9. The following program was presented: Presentation of cases, specimens and

interesting roentgenograms; Case of tuberculosis of shoulder joint simulating fibro-cystic disease, John I. Dieterle; Unusual complication following the usual surgical treatment of varicose veins, Dr. Fisher and Edmund H. Mensing; The neutralization of peptic ulcer and its rationale, Donald P. Abbott, Chicago.

NEWS ITEMS AND PERSONALS

Dr. T. W. Tormey of Madison was elected president of the American Association of Railway Surgeons at the annual convention of that organization held at Chicago in December. Dr. Tormey is local surgeon for the Chicago and Northwestern Railway Company.

Dr. and Mrs. P. B. Amunson of Mondovi left for the south December 13, where they will spend the winter. Dr. Amunson has sold the Mondovi Hospital to Dr. E. R. Pfaff of Shoals, Ind.

Dr. Ralph Grigsby, for two years with the Kenosha Clinic and previous to that with the Mayo Clinic at Rochester, is now practicing at Ashland.

Dr. C. D. Boyd of Kaukauna was elected chairman of the Active Staff of St. Elizabeth Hospital, Appleton, on January 8. Dr. F. P. Doheary was elected vice chairman and Dr. V. F. Marshall was re-elected secretary.

Dr. R. D. Thompson of Baraboo has been appointed head of the Fairmont hospital at Kalamazoo, Mich., and leaves Baraboo to take up his duties on February 1. The Fairmont hospital is a Michigan state and county tuberculosis institution and its head is appointed by the Michigan State Board of Health.

Dr. G. B. McKnight was elected by the county board to fill the unexpired term of C. J. Breitzman as Fond du Lac County trustee for the Sunnyview Sanatorium.

At the regular meeting on December 8, of Luther and Sacred Heart Hospitals, Eau Claire, all the officers of the staff were re-elected for 1925: Dr. E. E. Tupper, President; Dr. R. F. Derge, Vice-President; Dr. F. C. Kinsman, Secretary-Treasurer. Executive Committee: Dr. C. Midelfart, Dr. J. V. R. Lyman, Dr. E. E. Tupper, Dr. E. L. Mason and Dr. R. F. Derge.

The following officers were elected for the 1925 meeting of the Soo Surgical Association: President, Dr. A. A. Law, Minneapolis, Minn.; Vice-President, Dr. D. V. Meiklejohn, Fond du Lac, Wis.; Secretary-Treasurer, ex-officio, Dr. John H. Rishmiller, Minneapolis, Minn.

Dr. A. P. Teschner, Milwaukee, is now associated with Dr. O. R. S. Elliott at Gillette. It is announced that this will be the nucleus of a new clinic.

Dr. Frank F. Newall, Burlington, has moved to Detroit where he will resume his practice of surgery.

Wisconsin has upwards of 2,600 women qualified as graduate, trained, registered or certified nurses according to an official report of the Bureau on Nursing Education.

Dr. Charles A. Cibelius of Rockford, a former resident of Racine, has been appointed major in the medical branch of the officers' reserve corps of the United States army.

Dr. Cibelius is a graduate of the army medical school at Washington. Following his graduation in 1918 he was assigned to duty at the 352nd field hospital at Camp Dodge, Iowa. He was transferred to Camp Grant and was discharged at the local cantonment in 1919. After his separation from the service Dr. Cibelius began the practice of medicine in Rockford.

The seventeenth annual meeting of the Minneapolis, St. Paul & Sault Ste. Marie Railway Surgical Association was held at Hotel Sherman, Chicago, December second and third. Among the doctors who gave papers and lead discussions are: Dr. Walter F. O'Connor, Ladysmith, Wis.; Dr. Theodor Bratrud, Warren, Minn.; Dr. Samuel Z. Kerlan, McGregor, Minn.; Dr. Alfred M. Ridgway, Annandale, Minn.; Dr. Emil H. Webster, Sault Ste. Marie, Mich.; Dr. Clark C. Post, Barron, Wis.; Dr. Gilbert B. Johnston, Abotssford, Wis.; Dr. Matthew S. Hosmer, Ashland, Wis.; Dr. Arthur A. Law, Minneapolis, Minn.; Dr. Peter A. Nestos, Minot, N. D.; Dr. Olaf M. Sattre, Rice Lake, Wis.; Dr. John V. R. Lyman, Eau Claire, Wis.; Dr. Ernest L. Schroeder, Shawano, Wis.; Dr. Arthur N. Collins, Duluth, Minn.; Dr. Stephen E. Williams, Chippewa Falls, Wis.; Dr. John M. Dodd, Ashland, Wis.; Dr. William J. Waldschmidt, Fond du Lac, Wis.; Dr. Charles J. McGurran, Devils Lake, N. D.; Dr. William G. Kemper, Manitowoc, Wis.; Dr. DeForest A. Bronson, No. Fond du Lac, Wis.; Dr. Peter J. Christofferson, Waupaca, Wis.; Dr. Henry E. Combacker, Osceola, Wis.; Dr. Alexander J. McCannel, Minot, N. D.; Dr. Frank S. Wade, New Richmond, Wis.; Dr. F. Gregory Connell, Oshkosh, Wis.; Dr. Arthur T. Holbrook, Milwaukee, Wis.; Dr. Ernest V. Smith, Fond du Lac, Wis.; Dr. George N. Pratt, Neenah, Wis.; Dr. Dean Lewis, Chicago, Ill.; Dr. John M. Dodson, Chicago, Ill.; Dr. Carl von Neupert, Stevens Point, Wis.; Dr. Fred A. Dunsmoor, Minneapolis, Minn.; Dr. Martin W. Roan, Bismarck, N. D.; Dr. Raymond G. Arveson, Frederic, Wis.; Dr. Edwin A. Riley, Park Falls, Wis.; Dr. Colin C. Campbell, Ashley, N. D.; Dr. David V. Meiklejohn, Fond du Lac, Wis., and Dr. Richard C. Smith, Superior, Wis.

Dr. G. F. MacIntyre of Elkhorn will spend the next few months in taking a post-graduate course and with that aim in view, has sold his practice to Dr. E. R. Rickard of Chicago.

Dr. Kenneth Thomas Brown, son of Dr. and Mrs. J. F. Brown, Waupun, has accepted the post of house physician at Barnes Hospital, St. Louis, where he has been an intern for the past year. Dr. Brown is a graduate of the Sparta High School, a graduate of the University of Wisconsin, and last July was graduated from Washington University, St. Louis.

Mrs. E. Lenore Morris, Racine, practicing the profession of naprapathy, is charged with using the title "doctor" and also, with attempting to practice a system

of treating bodily and mental ailments without a license or certificate of registration. She has been bound over to the municipal court for trial following her preliminary examination.

Dr. David A. Maas, formerly of Danbury, will open up a practice at Balsam Lake. There has been a need of a physician in this community for a long time and his location causes a feeling of gratification to the citizens of the town.

Dr. Arnold S. Jackson recently opened the first of a series of health talks to be held every two weeks at Madison. His subject was a general discussion of the common diseases, tuberculosis, cancer, syphilis and goiter.

Dr. Philip Sinz, Fond du Lac, was convicted of performing an illegal operation and was sentenced to nine months in county jail with a fine of \$500 or an additional six months without the fine. The doctor will serve the fifteen months.

Dr. A. F. Fritchen, physician and surgeon, who has been practicing at Union Grove for the past five months, has returned with his family to Decorah, Iowa.

In accordance with the plan of the State Board of Control to combine the office of prison physician and physician at the Central State Hospital for the Criminal Insane, Dr. J. J. Bowes, of Rivermore, Iowa, has been appointed to the position. His headquarters will be at the Central Hospital, Waupun.

Dr. A. F. Connors, who was assistant to Dr. J. F. Brown at the Central Hospital, has been transferred to Mendota; and Dr. J. Vermuelen, who has been physician at the prison for the past year, completed his work there in December.

Initial pledges have been made toward the erection of a \$250,000 hospital at Antigo. The Langlade County Medical Society has pledged itself to raise \$10,000 from individual members. Mrs. Hiram Fowler, of Antigo, has pledged \$5,000 and Charles W. Fish, Elcho lumber operator, has donated the site, a tract of about five acres.

Half the \$250,000 will be provided by the sisterhood to have charge of the hospital, they having agreed to invest an amount equal to that raised in the community.

Dr. George Gibbs, head of the Associated Doctors, 130 Grand Ave., Milwaukee, was fined \$250 by Judge Page in district court and his license to practice medicine in the state ordered revoked. Dr. Gibbs was charged with having performed an illegal operation.

An adjourned meeting of the board of education was held recently at Rice Lake for the purpose of considering the adoption of a program for health betterment among the children in the public schools. An invitation to be present at the meeting had been extended to the physicians of the city, Drs. J. H. Wallis, A. S. White and D. L. Dawson responding. The discussion was limited to health problems.

The new Richland Center hospital has recently been formally dedicated. It is the third in the state to come under the Wisconsin Methodist Hospital and Home association, others being at Madison and Rice Lake.

The new hospital represents an investment of close to \$50,000. It has beds for 20 patients, a modern operation room, the latest in X-ray equipment and a maternity room.

Permits to sell intoxicating liquor under the Severson prohibition law have been granted to 3,934 persons and firms during the recent year, and fees totaling \$36,730 collected for such permits, according to a report made public today by Herman W. Sachtjen, state prohibition commissioner.

Physicians licensed number 1,470, and the fees collected from these licenses total \$14,700. Two hundred and sixty-one licenses were issued for which no fees were required, to the following classes: physicians to use alcohol for sterilizing purposes, 159; dentists, 99; sacramental wine, 3.

A summary of the licenses and fees follow: physicians, class A, 1,470, \$14,700; physicians, class B, 403, \$4,030; druggists, class A, 702, \$7,020; druggists, class B, 125, \$1,250; druggists, wholesale, 7, \$510. Manufacturers, 66, \$660; hospitals, 28, \$280; specials, 1, \$10; laboratory, 84, \$840; flavoring, 11, \$110; transportation, 4, \$40; veterinarians, 6, \$60; delinquents, 651, \$6,510; permits paid and not issued, 64, \$640.

A Wisconsin newspaper was informed that recently an oily-tongued fakir went around from house to house selling spectacles. He would, by a slight of hand movement, change a lense in the old glasses, put them on the prospective customer, and with one hand cover either the left or right eye. The prospect, of course, could not see satisfactorily, and was advised that her vision was bad. He would then insert the old lense again, presto change, the lady of the house could then see again, and sometimes parted with \$7.50.

"Doctors' night" was observed recently by the Candlelight club of Oshkosh and members of that organization were given some insight into surgical operations, with particular reference to anaesthetics. Dr. V. F. Marshall of Appleton spoke on "Anaesthesia" and other physicians who took part in the general discussion were: Drs. W. N. Liun, John F. Schneider, W. P. Wheeler, Frank Brockway and Neil Andrews.

Stoughton has recently organized a hospital association to foster the purchase and reconstruction of the hospital formerly operated by Dr. M. Iversen. The various committees are working diligently to raise the necessary funds and a year or two will no doubt find a modern and well-equipped hospital at Stoughton.

The Milwaukee Neuro-Psychiatric society met January 22nd at the library of the Milwaukee Academy of Medicine. Dr. Herbert Powers spoke on "An Unusual Case of Multiple Neuritis," and Dr. Hans H. Reese, Men-

dota, on "Treatment of General Paralysis with Malaria."

Dr. L. E. Spencer, Wausau, has tendered his resignation to the state board of health as deputy state health officer and he will relinquish the duties of the office as soon as he is relieved by the board. He plans to devote his time to private practice in the future.

Dr. A. V. DeNeveu, Rhinelander, deputy state health officer, addressed a meeting of the Iron County school boards and other Iron County officials, recently at the Court House, Hurley. "Goiter Prevention" was the subject presented by Dr. DeNeveu.

Dr. Louis R. Head, Madison, was awarded a judgment of \$2,350 against the Annie G. Marston estate by Judge Hill at Baraboo. Dr. Head filed a claim of \$8,500 against the estate for medical services rendered.

SOCIETY RECORDS

NEW MEMBERS

Prill, J. H., Chetek.
 Simenstad, L. O., Oseola.
 Ostrander, A. J., Chetek.
 Dierker, Otto F., Watertown.
 Pike, Chas. H., Niagara.
 Johnson, J. M., Ripon.
 Schulz, H. A., Ripon.
 Schallern, Bruno, Ripon.
 Thewalt, W. B., Berlin.
 Minshall, A. P., Viroqua.
 Bernhardt, E. L., Viroqua.
 Evans, Edward T., La Crosse.
 McLoone, J. E., La Crosse.
 Bigler, J. A., La Crosse.
 Gallaher, D. M., Kaukauna.
 Neidhold, C. D., Appleton.
 Metealf, G. S., Janesville.
 Wagner, W., Oshkosh.
 Odell, L. E., Phillips.
 Buerki, R. C., Madison.
 Ravn, Bjarne, Merrill.
 French, M. R., City Hall, Milwaukee.
 Montgomery, J. L., Gross Bldg., Milwaukee.
 Bauer, D. F., Wauwatosa.
 Buekland, Ralph, Fairwater.
 Donovan, Jos. P., Madison.

CHANGES IN ADDRESS

Powers, Fred H., Beaver Dam—Christopher, Ill.
 Southwick, Frank A., Stevens Point—6216 Aldama St., Los Angeles, Calif.

MARRIAGES

Dr. Horace Manchester Brown, Milwaukee, and Miss Annie Fleck, also of Milwaukee, were married on December 16th.

DEATHS

Dr. Merle Casey, Almond, died December 27th at St. Agnes' Hospital, Fond du Lac, after an operation. Doctor Casey had been in ill health for some time and it was thought that the operation would improve his health. He had just recently sold his practice and

property at Almond where he had resided for the past twenty-three years, and planned on going south with his family for the winter.

Doctor Casey was a member of the Portage County Medical Society, the State Medical Society of Wisconsin and the American Medical Association. He is survived by his wife, two sons and two daughters.

Dr. D. C. Miller, Marshfield, died December 1st at his home. Heart trouble was given as the sudden cause of death. Dr. Miller began his medical career in 1905, at which time he was graduated from the Milwaukee Medical College. He had been engaged in the practice of medicine in Marshfield for the past five years. He is survived by his wife and one daughter.

Dr. Miller was a member of the Wood County Medical Society, the State Medical Society and the American Medical Association.

Dr. John S. Kings, 862 Superior St., Milwaukee, died at his home on December 8th. Doctor Kings removed to Milwaukee several years ago from Watertown where he had been practicing for the past thirteen years. He was born in Delafield March 5, 1873, and graduated from the Detroit Medical College in 1897. He is survived by his wife and one son.

Dr. Kings was a member of the Milwaukee County Medical Society, the State Medical Society and American Medical Association.

Dr. G. A. Seiler, practicing physician in Monroe for twenty years, died in San Francisco, Calif., on December 15th. Dr. Seiler was born in Switzerland November 30, 1844, and practiced medicine in the cities of Alma and Monroe for many years.

CORRESPONDENCE

To the Editor, Wisconsin State Medical Journal.

Since the startling results obtained by Vedder and Sawyer in the treatment of respiratory infections by the use of chlorine gas, the medical and lay press have been assailed by advertisements for chlorine gas machines and lengthy articles exploiting this procedure.

The public demanded chlorine treatment for "colds," not necessarily acute rhinitis but head colds, bronchial cough, laryngitis, pharyngitis, sinusitis. Next whooping cough, asthma, and even tuberculosis were listed in the category of diseases for which chlorine gas was considered the panacea. Many physicians took up the chlorine gas therapy and even had special chambers constructed. Some physicians gave the treatments because they really believed there was some merit in them; some thought they were an easy way of making money; and some were simply "sold" by a clever salesman who told them of the wonderful results obtained.

Now, after several months have elapsed, most of us have purchased some costly and intricate machine, and the only visible result seems to be a lot of office furniture that has been ruined and corroded by the fumes of chlorine. To date, no authentic report of cases compares with that of the original investigators; rather, the disappointments of subsequent study have been in sharp contrast to the promise of the first work with

chlorine. The Health Department of New York City frankly states that the percentage of improvement is little over 6 per cent. My own limited observations are not as encouraging as that.

In the first place the patient who presents himself to the physician for treatment for an acute "head cold" or an acute upper respiratory infection is complaining not of bacteria in the nose, but of the symptoms resulting from the elaboration of the toxin of the bacteria in the tissue of the respiratory membranes together with general absorption of the same. This condition antedates some indiscretion or other factor causing general lowering of resistance. It seems rather far-fetched to expect that a gas or fumes breathed into the respiratory apparatus can overcome the effect of this already established pathologic condition, even though that gas has a known and respected bacteriocidal action. If it is sufficiently concentrated to penetrate the tissue, it is bound to destroy the tissue. We can obtain a bacterial culture at any time from any nose or throat, but it is only when the bacterial flora penetrate the "lipoid surface tension" that a cold develops.

Men who work in arsenals and so forth and breathe fumes all day are free from epidemics of colds, because the air they breathe has a lower bacterial count, due very surely to the fumes; but when they do develop respiratory infections they go through the same clinical course as any one else. Chlorine in the air does kill bacteria—so does formaldehyde or any other similar gas, but the fumes do not affect the toxin in the cellular structure. It has been our experience that certain people throw off "colds" easily, while most of us are quite ill.

My experience has convinced me that the new treatment is not an improvement over the old-fashioned but time-tested treatment of rest in bed, cathartics, plenty of fluids and so forth. Something of real value may come from the widespread use of chlorine gas, but it is apparent that the claims made thus far have not been substantiated by the profession at large with the apparatus thus far available.

R. A. BARLOW,
Madison, Wis.
December 15, 1924.

The Editor Wisconsin Medical Journal, Goldsmith Building, Milwaukee, Wisconsin.

DEAR SIR: The mid-winter announcement in 1923, issued through the Department of Biology, Georgetown University, Washington, D. C., of the foundation of the Sofie A. Nordoff-Jung Cancer Prize, has been modified to read as indicated below.

May we ask you to kindly notice this item in your valuable Journal.

Thanking you in advance for this courtesy,

Very truly yours,
FRANCIS A. TONDORF.

ITEM: The Commission for the distribution of the Prize for Cancer study founded by Doctor Sofie A. Nordoff-Jung, in agreement with the Foundress, has resolved to distribute the Prize from now on only every two years to the double amount of the sum allotted here-

tofore, that is, One Thousand (\$1,000) Dollars. The next Prize will reach distribution in 1926.

THE AMERICAN BOARD OF OTOLARYNGOLOGY

The American Board of Otolaryngology was organized in Chicago on November 10. The following constitute the board of directors: Drs. Harris P. Mosher, Boston, president; Frank R. Spencer, Boulder, Colo., vice-president; Hanau W. Loeb, St. Louis, secretary and treasurer; Thomas E. Carmody, Denver; Joseph C. Beck, Chicago; Thomas H. Halsted, Syracuse, N. Y.; Robert C. Lynch, New Orleans; Burt R. Shurly, Detroit; Ross H. Skillern, Philadelphia; William P. Wherry, Omaha. The office of the Board is at 1402 South Grand Boulevard, St. Louis, Missouri. The board comprises representatives of the five national otolaryngologic associations; the American Otological Society, the American Laryngological Association, the American Laryngological, Rhinological and Otological Society, the American Academy of Ophthalmology and Otolaryngology and the Section of Laryngology, Otology and Rhinology of the American Medical Association. The object of the association is to elevate the standard of otolaryngology, to familiarize the public with its aims and ideals, to protect the public against unqualified practitioners, to receive applications for examination in otolaryngology, to conduct examinations of such applicants, to issue certificates of qualification in otolaryngology and to perform such duties as will advance the cause of otolaryngology. The first examination will be held at the time of the meeting of the American Medical Association.

PAGE THE PARAGRAPHER!

Quarantines have their humorous aspects now and then. A Kansas citizen sent the following letter to the editor of his paper:

"I wish to thank the city authorities for quarantining my family and me for three weeks because one of them had smallpox. During that time, my wife caught up with her sewing. We had three square meals every day, as no one came in, and she was not permitted to leave. We enjoyed three weeks of good nights' sleep, and best of all a cousin with four children, who had arranged to visit us, saw the smallpox sign on the door and left town so scared that she will never come back again."—Ohio State Medical Journal.

NURSES TO MEET

The annual institute for public health nurses will be held in Madison, March 16-20 inclusive. Meetings will be held at the public library auditorium. Among the speakers will be Dr. Don M. Griswold, acting director of the department of hygiene and preventive medicine, University of Iowa, and Dr. Caroline Hedger of the Elizabeth McCormick Memorial fund, Chicago. The program on March 7 will be planned to hold special interest for lay people.

Bills Introduced Asking Basic Education for All Who Treat the Sick

Identical bills have been introduced in both houses of the Wisconsin Legislature that would require a fundamental education of all who treat the sick. In the Senate the bill was introduced by Senator Herman E. Boldt, Sheboygan Falls, and in the Assembly an identical bill was introduced by Assemblyman Fred E. Moul, Burnett, Dodge county. These identical bills follow exactly the recommendations of the State Medical Society as adopted at the 78th Annual Meeting last fall.

Following introduction, the Senate bill was referred to the Committee on Education and Public Welfare. This committee is composed of Senators C. B. Casperson, Frederic, chairman; Howard Teasdale, Sparta; Walter H. Hunt, River Falls; William L. Smith, Neillsville; and Herman T. Lange, Eau Claire.

In the lower house the bill was referred to the Committee on Public Welfare composed of Assemblymen Matt Koenigs, Fond du Lac, chairman; Dr. A. J. McDowell, Soldiers Grove; Mrs. Helen M. Brooks, Coloma; Henry A. Staab, 903 39th Street, Milwaukee; B. D. Thorp, Ephraim; Carl Grimstad, Mount Horeb, and D. J. Vincent, Genoa City, Kenosha County.

The bill in full follows. That material in smaller type is solely by way of explanation and does not appear in the bill.

The numbers of this bill are:

SENATE BILL 58 S—ASSEMBLY BILL 27 A
A BILL

To amend the title of Chapter 147 of the statutes, to renumber sections 147.01 to 147.10, inclusive, to create sections 147.01 to 147.12, inclusive, relating to treating the sick and providing for examination and registration in the basic sciences, and to create section 20.435, appropriating the fees collected therefor.

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

SECTION 1. The title of Chapter 147 of the Statutes is amended to read: *Treating the Sick.*

SECTION 2. Sections 147.01 to 147.10, inclusive, of the statutes, are respectively renumbered to be sections 147.13 to 147.22, inclusive.

(Memo. The sections renumbered constitute the present medical practice act. The plan of this bill is to make the basic science law the first part of that act.)

SECTION 3. Twelve new sections of the statutes are created, to be numbered and to read:

147.01. *Definitions.* The "basic science law" is sections 147.01 to 147.12, inclusive, and as used therein:

To "treat the sick" is to examine into the fact, condition, or cause of human health or disease, or to treat, operate, prescribe, or advise for the same, or to undertake, offer, advertise, announce, or hold out in any manner to do any of said acts, for compensation, direct or indirect, or in the expectation thereof.

"Disease" includes any pain, injury, deformity, or physical or mental illness or departure from complete health and proper condition of the human body or any of its parts.

The "basic sciences" are anatomy, physiology, pathology, and diagnosis.

The "board" is the state board of examiners in the basic sciences.

147.02. *Practice.* No person shall treat, or attempt to treat, the sick unless he shall have a certificate of registration in the basic sciences, and shall have recorded the same with the county clerk in the manner provided in section 147.14, and shall have complied with all other requirements of law. This section shall not affect the exemptions provided by subsections (1) and (2) of section 147.19, nor shall it be construed to require a certificate of registration in the basic sciences for the practice of nursing by persons registered under chapter 149.

(Memo. The matter of present practitioners is covered by section 147.09. Note that no other requirement of law is withdrawn by this act, and that the exemptions of consulting physicians and Christian Scientists is preserved, but no other exemptions or exceptions allowed.)

147.03. *Board.* The governor, with the advice and consent of the Senate, shall appoint the state board of examiners in the basic sciences. The board shall consist of three members, appointed for terms of six years. A vacancy shall be filled for the unexpired term. The first appointments shall be for terms expiring April 1, 1927, 1929, and 1931, respectively. The board shall within thirty days of appointment organize by the election of a president, secretary and treasurer. The compensation of the members of the

board shall be ten dollars for each day actually spent and actual and necessary expenses.

(Memo. The governor is unrestricted in his selections, except by the necessity of confirmation. The first board should be ready for submission to the 1925 Senate. Thereafter a term will expire during each session.)

147.04. *Other Boards.* No examining board for any branch of treating the sick shall admit to its examinations or license or register any applicant unless such applicant first present a certificate of registration in the basic sciences. Any such board may by rule accept such certificate in lieu of examination in those subjects.

(Memo. This leaves it optional with other boards to accept the results of the basic science examinations. But the choice must be by rule, and so apply to all alike.)

147.05. *Application.* Application for a certificate of registration in the basic sciences shall be made to the board of examiners in the basic sciences, accompanied by sufficient and satisfactory evidence of good moral character and preliminary education equivalent to graduation from an accredited high school of this state, and a fee of ten dollars.

147.06. *Examination.* Examination shall be in the basic sciences only, shall be conducted not less than four times a year at such times and places as the board shall fix, and shall be both written and by demonstration or other practical test. No applicant shall be required to disclose the professional school he may have attended or what system of treating the sick he intends to pursue.

(Memo. Four examinations a year are required because of the number of different boards for whose examinations the basic science certificate is a prerequisite. Both written examinations and practical tests are required.)

147.07. *Certificate.* If the candidate attains a grade of seventy-five per cent in each subject, he shall receive a certificate in the basic sciences, signed by the president and secretary. If he fails in one subject only, he may be re-examined in that subject at any examination within one year without further examination fee. If he fails in two or more subjects he shall not be again examined until after the lapse of one year, and then only upon application anew and in all subjects. If the applicant states that his practice is to be confined to one organ or set of organs, his examination and certificate shall be limited accordingly.

147.08. *Reciprocity.* The board may issue certificate to an applicant who presents sufficient

and satisfactory evidence of having passed examinations in the basic sciences before a legal examining board or officer of another state, the national board of medical examiners, or of a foreign country, if the standards are as high as those of this state, and upon payment of a fee of fifteen dollars.

147.09. *Previous Practice.* Any person who, on February 1, 1925, was regularly licensed or registered in the State of Wisconsin to treat the sick need not be registered under the basic science law. Any person who, on February 1, 1925, was not registered or licensed in the State of Wisconsin to treat the sick but nevertheless on that date was lawfully engaged in this state in treating the sick shall be registered upon presenting to the board, within sixty days after this section goes into effect, an application therefor, with sufficient and satisfactory evidence that he was, on such date, lawfully engaged in this state in treating the sick, and is of good moral character, and upon the payment of a registration fee of five dollars. The certificate shall recite registration solely as a person who, on February 1, 1925, was lawfully engaged in this state in treating the sick. Such certificate shall be in force only when filed with the county clerk in the manner provided in section 147.14.

(Memo. By this section persons previously licensed or registered need not be registered by the new board, but persons not licensed or registered, although practicing, must be registered, upon certain preliminary proof, and receive a certificate, not of registration in the basic sciences, such as is to be issued to those who pass the examination, but as the fact is, persons who were authorized to and did practice previously. This certificate, like the other, must be recorded with the county clerk to be effective.)

147.10. *Revocation.* Certificate of registration in the basic sciences shall be subject to revocation for the causes and in the manner provided in Section 147.20.

(Memo. This section makes mandatory the revocation when the facts are proven. The standard of misconduct is that applicable to physicians.)

147.11. *Review.* The candidate affected, or any state examining board for any branch of treating the sick, may commence an action in the circuit court for Dane county against the board to set aside action by it granting or denying a certificate of registration under the basic science law. In such action the complaint shall be served with the summons, and within twenty days after such service, the board shall answer, and shall cause to be

filed with the clerk of the court the papers and records upon which it acted, or certified copies thereof. The issues shall be tried by the court upon such papers and records, and additional evidence in the discretion of the court. The court may (1) dismiss the action, or (2) remand the record to the board for (a) further examination or investigation, or (b) modification or reversal of its action. The attorney general shall appear in such action for the board, and no costs shall be taxed by either party.

(Memo. This safeguard of court review is open to all interested parties and safeguards all alike. The court is not handicapped with any rigid rules of presumption of correctness of the action of the board, but may go into and determine the whole question for itself. Note that the right to review attaches to every final action which determines the fact of the right of any party to receive or to continue to hold a certificate.)

147.12. *Administration.* The board shall keep a complete record in which shall be entered all applications, examinations, registrations, fees, decisions, orders, and proceedings. It shall from time to time from lists furnished by the state civil service commission, appoint such competent and recognized experts as shall be necessary to assist in the examinations, and necessary clerks. They shall receive such compensation as the board shall

fix. On or before August 1 of each year, the board shall file with the Governor a report of all receipts, disbursements, and transactions for the preceding fiscal year. The disbursements of the board shall not exceed the fees received.

(Memo. The bill does not require the appointment of persons personally qualified to actually conduct the examinations and this section requires the appointment of experts for that purpose if necessary. The state civil service commission must certify a list, and therefore assumes responsibility for their qualifications. It is likely that under the short term of employment and the rules, the commission would not hold competitive examinations but certify upon the basis of submitted qualifications.)

SECTION 4. A new section 20.435 is created to be numbered and to read:

20.435. All monies collected or received by each and every person in behalf of the state board of examiners in the basic sciences under sections 147.01 to 147.12, inclusive, shall be paid within one week after receipt into the general fund, and are appropriated therefrom for the administration of said sections.

(Memo. This makes available for the maintenance of the board, the fees collected and no more.)

SECTION 5. This act shall take effect upon passage and publication.

Over Six Thousand Copies of Second Annual Lay Issue Distributed; Hygeia Presentations Acknowledged

Some 6,300 copies of the Second Annual Lay Issue of the Wisconsin Medical Journal were mailed in January to prominent and interested laymen in all portions of the state. Of the total number distributed, upwards of 2,500 were sent to laymen whose names were suggested by members of the State Medical Society.

In addition to the general lists, copies of the Lay Issue were forwarded all members of the state legislature; all state officials; district attorneys; county, circuit and supreme court judges; all high school, normal school, county training school and vocational school libraries; to all officers of clubs in the Wisconsin Federation of Women's Clubs; to lay public health workers in the state, and to the editors of all daily and weekly newspapers of the state. The cost of just mailing the lay issue was in excess of \$250.

The March issue of this Journal will contain

extracts from letters received commenting on this issue. The total press run on this issue was 8,500, the largest in the history of the Journal.

HYGEIA PRESENTED

Over two hundred and fifty year subscriptions to Hygeia were presented to public officials and prominent laymen during the holiday season. This is the second year that such subscriptions have been presented in accordance with the lay educational program of the State Society. Extracts from letters received in response to this work follow:

"I appreciate very much Hygeia, which we have enjoyed very much during the year and are delighted to have continued. Please accept my warm thanks and all good wishes for this work."

—Miss Zona Gale, authoress and member University Board of Regents, Portage.

"It is with pleasure that I acknowledge the

receipt of your letter and also the extended subscription to Hygeia. I have read many interesting articles and wish you all success."—Hon. Julius Kiesner, assemblyman, Milwaukee.

"Let me assure you that we enjoy the magazine."—Mr. J. T. Murphy, publisher and editor, Superior.

"I appreciate your favor in sending me Hygeia for another year. I have looked at this magazine every month during the last year and have always found it interesting. In fact, I have had occasion to cite it as an authority several times."—Hon. E. E. Witte, director, Wisconsin Legislative Reference Library, Madison.

"I am very glad, indeed, to know that I am to be the recipient of your kindness to the extent of having Hygeia come to me for another year. I find this a most readable magazine; it gives technical medical matters in an understandable way. I have enjoyed every number and am glad that I shall continue to receive them throughout the coming year."—Mr. Dante M. Pierce, publisher, Pierce's Farm Weeklies (including The Wisconsin Farmer), Des Moines.

"I wish to express my sincere thanks for your kind letter under date of December 20th, and with reference to the journal called Hygeia, which I think is very valuable and interesting and should be studied by many of our Wisconsin citizens. I think it goes a long way towards acquainting the people generally what is necessary for good health."—Hon. H. T. Lange, state senator, Eau Claire.

"It also makes me glad that you count me among those interested in promoting the health and well-being of the people of Wisconsin. I shall continue to use all my efforts in this direction."—Mrs. A. H. Shoemaker, president, Wisconsin Federation of Women's Clubs, Eau Claire.

"Will you please extend to the State Medical Society my most sincere thanks for sending Hygeia to me for another year. I have not only found it interesting but most valuable."—Mrs. Ben Hooper, Oshkosh.

"Allow me to thank you for the year's subscription to Hygeia. Let me assure you that your gift will be thoroughly enjoyed by Mrs. Huber and myself."—Hon. Henry A. Huber, lieutenant governor of Wisconsin, Stoughton.

"Thank you for your Christmas present. If it

had not been offered to me, I would have subscribed for it as we think a great deal of 'Hygeia.' We are very much interested in the articles appearing therein, especially the exposé of the Bernard McFadden cult, which was very fine. It is a dandy publication and I should not want to be without it."—Hon. Oscar H. Morris, state senator, Milwaukee.

"Your letter is received and I thank you for the continued subscription to 'Hygeia.' Mrs. Titus and the other members of the family like this publication and read it from cover to cover."—Hon. W. A. Titus, state senator, Fond du Lac.

"Permit me to thank you and your organization for their very much appreciated subscription to Hygeia, for the coming year. I find it most useful and helpful in my health work."—Mrs. A. H. Wilkinson, chairman, State Committee on Public Health, Wisconsin Federation of Women's Clubs, Milwaukee.

"I am in receipt of your valued favor of December 20th informing me that the good book, Hygeia, will come to my home through 1925.

"Through the kindness of the Kenosha Medical Society, Hygeia has reached us regularly through the year. We appreciated its contents to such an extent that my wife expressed a desire to have it come regularly. Accept my thanks both for Hygeia and your most cordial Christmas greetings. May the State Medical Society of Wisconsin prosper throughout the coming year."—Hon. Conrad Shearer, assemblyman, Kenosha.

"I desire to thank you for Hygeia, as we find it very valuable. My wife reads it from cover to cover and I read it as I find time."—Hon. Howard Teasdale, state senator and president pro tem, 1925, Sparta.

The above quoted comments are given as illustrative of the appreciation expressed to the members of the State Medical Society for their unselfish program. Lack of space does not permit your secretary to quote from all the letters received.

DR. CONNELL RECOVERING

Dr. F. Gregory Connell, Oshkosh, was taken with typhoid fever following a trip to New York in December. Dr. Connell is now convalescing and expects to leave for Florida early in February. He will resume practice on March first.

Testimonial Dinner Given Dr. Sidney S. Hall, Treasurer Emeritus of State Society

Over fifty members of the Alpha Mu Pi Omega fraternity, together with the officers of the State Medical Society, attended a testimonial dinner in honor of Dr. Sidney S. Hall at the University Club, Milwaukee, Saturday evening, January third. The dinner was arranged by his brothers in the A. M. P. O. fraternity, and at the conclusion of the dinner Dr. Hall was presented with a Gruen watch to remind him of his host of Wisconsin friends.

Dr. Wilson Cunningham, president of the State Medical Society, presided at the dinner, and during the evening called upon Drs. Charles Sheldon, Madison; Rock Sleyster, Wauwatosa; D. W. Hayes, Milwaukee; Hoyt E. Dearholt, Milwaukee; H. M. Brown, Milwaukee, and A. J. Patek, Milwaukee. Dr. Edward Evans, La Crosse, presented Dr. Hall with the watch at the conclusion of the dinner.

Dr. Hall was born at an academy in East Bloomfield, Ontario County, New York, where his father was master, on March 1st, 1844. The family moved shortly to Norwalk, Conn., and in 1851 to Rosendale, Fond du Lac County, Wisconsin.

"Wisconsin at that time," said Dr. Hall, "was not the best place to get an education. My first school was in a little log schoolhouse in the village. There were no grades, but I took what they had from the primer to algebra."

Subsequently Dr. Hall continued his studies under tutors, in a private school, at the Fond du Lac High School and then studied one year at Ripon College.

During the year 1863-64, Dr. Hall studied at the Medical School of the University of Michi-

gan. Instead of completing his studies, he enlisted as a surgeon's steward in the United States Navy. He served with the Mississippi Squadron from June, 1864 to June, 1865.

Upon his discharge from the Navy he attended the Harvard Medical School, at which he received his M. D. degree in 1867. Dr. Hall returned to Rosendale to practice with his father for the next three years. From 1870 to 1874 he practiced at Sheboygan. In 1874 he moved to Morrison, Illinois, where he resided until 1882, at which time he returned to Wisconsin establishing his practice at Ripon. From that time until the late fall of 1924 Dr. Hall was in continuous practice at Ripon. He is now a resident of Minneapolis, where he resides with a daughter at 159 Malcolm Avenue, Southeast.

TREASURER THIRTY-FIVE YEARS

Dr. Hall became a member of the State Medical Society of Wisconsin in 1872. This was interrupted when he moved to Illinois, but he again became an active member of the Wisconsin Society in 1884, upon his return. In 1889 Dr. Hall was elected treasurer of the State Medical Society of Wisconsin, a position he held continuously until last fall. During the thirty-five years of service as treasurer, Dr. Hall has never missed the annual meetings.

In discussing the early days of the Society, Dr. Hall declared that in 1889 the Society had about three hundred members and close to \$500 in the treasury. Since that time Dr. Hall has seen the Society grow to 1,952 members with a free surplus of \$15,000, when he relinquished his office to Dr. Sleyster.

Dr. Louis M. Warfield Writes for Journal on Points of Interest Seen Abroad

Editor's Note—Dr. Louis M. Warfield, a former editor of this Journal, will spend nearly a year abroad. It is at our request that he contributes a series of monthly letters concerning that which he finds of particular interest. This constitutes the first of the series.

Members desiring to take advantage of Dr. Warfield's offer contained in this letter may address him in care of the Anglo-Austrian Bank, Vienna, Austria.

Vienna, Jan. 2, 1925.

In this letter I shall only tell very briefly what I saw in Paris during the ten days I remained there. Naturally I saw only a small part of what can be seen, still I gathered a few impressions which I shall pass on to your readers.

Anyone who goes to Paris to visit the hospitals should go to the office of the Association for the

Development of the Medical Relations Between France and Allied or Friendly Countries which is situated in the Salle Bécларd of the Faculté de Médecine, 12 Rue de l'Ecole de Médecine. There an English-speaking young woman will give him pamphlets and maps, and he can see posted on the wall all the clinic hours at the hospitals. Then if he be so fortunate as to meet one of the French doctors who speaks English and who is willing to show him around, he will have a most interesting time.

For the American doctor, Paris does not seem to offer much in the way of special courses. The work is not at all organized. Anyone desiring to visit the clinics is welcome, but no real attempt is made to attract the American doctor. In general, the laboratory equipment is very meager and the pay of the men who conduct courses in the laboratory branches is so small, that all have to supplement their income by private practice. Here and there a man like Widal has a well-equipped laboratory, but it is his private affair. I am told that quite recently the French chamber has passed a bill which provides for salaries sufficient to enable the teachers and investigators to devote their whole time to their work. This will undoubtedly stimulate research. It will also enable young men to remain longer at work in the experimental field.

The French lay great emphasis upon direct observation. The curriculum of the medical school is built upon the idea that the student must learn to see disease in all its manifestations upon the patients in hospital and dispensary. Students of the first year attend clinics in the wards. The Professor conducts these clinics. Naturally the lecture is rather elementary, stress being laid upon what can be seen. From the first year on the student is brought directly into contact with the sick person by means of amphitheater clinics. In the fourth year he has a few patients in the wards assigned to him, takes histories, makes simple laboratory tests, and is quizzed on the cases by the Professor before the group of first year students. Anatomy is taught during the first year; a good course, so I am told. But Pathology, Bacteriology, Physiology, and Pharmacology including Physiological Chemistry are short courses given in laboratories not well-equipped by men who practice medicine. Whereas while our laboratory courses may be criticized as too long and our clinical instruction not long enough, the French reverse this completely. Pity that the best in each

can not be combined into a course of study for medical students.

I visited Prof. Widal at Hospital Cochiu. This is an old hospital, a rambling affair, gray and drab on the outside but with light and airy wards. The day I was there Prof. Widal held a ward clinic upon a case of chorea with joint and cardiac complications. About fifty or sixty first year students were present. The 24-bed ward was half filled with students. Those on the outskirts of the group naturally had difficulty in seeing the patient who was in a bed at one end of the ward. This is not a criticism of the clinical teaching. We suffer, too, from large classes. One does the best he can under such conditions.

Unfortunately Prof. Widal and I could not converse with each other due to mutual language difficulties. I was turned over to Dr. Marcel Brulé who spoke English and with whom I had a short talk. Some of my readers are no doubt familiar with his work on Jaundice.

The French have not advertised themselves as the Germans have. Very few speak English, so that the most serious drawback to an American is inability to understand and to make himself understood.

I visited Prof. Chanffard at Hospital Saint Antoine. He was delighted to see me, wanted to tell me all about his clinic but I could not understand him. I made ward rounds with him, followed by a small group of students and assistants. I understood enough to learn that emphasis was laid upon what one saw. Very little laboratory work seemed to have been performed. Treatment was talked about in great detail. We show tendencies in our hospitals to have too much laboratory work done. Certainly we and the French should get together.

The Laennec Hospital is the large tuberculosis hospital in the heart of Paris. The buildings were designed years ago for an Alms House. It was surprising what had been done in the way of adapting the old wards to house the tuberculous. I visited the hospital with Prof. Edward Rist who is Chief Physician. He speaks English like a native American. I made rounds with him in several wards. He is a firm believer in pneumothorax as a therapeutic measure. He makes use of it on every patient unless there are evident contra-indications. The X-ray, both fluoroscopic and film examinations, is used to check up on the treatment. He is quite satisfied with his results.

He has a splendidly equipped X-ray laboratory in charge of an able roentgenologist. I never saw more beautiful X-ray films of the chest. Dr. Rist also has research laboratories in charge of competent men where pathological and bacteriological research is carried on. Here would be an excellent opportunity for one to learn about lung tuberculosis.

One should at least mention that there is a large out-patient clinic and a well organized social service department with a follow-up system.

Every doctor who goes to Paris naturally desires to see the Pasteur* Institute. I went, and I had the good fortune to meet both Professors, Ronx and Calmette. As neither spoke English (and my French is but a smattering) I was turned over to one of the assistants who had worked in the States for some time. He showed me everything including the large stables, where at least seventy horses were kept, and the specially built house for the monkeys. Most interesting of all was the collection of apparatus and instruments used by the Master, most of it self-made, in his epoch-making discoveries. The Institute seemed well equipped. Across the street is the three story chemical building given by Baron Hirsch. This is well equipped with modern apparatus so far as I could see. The Institute has a small, splendidly-built hospital for the treatment of diseases benefitted by serotherapy.

But by far the most impressive sight and the one which will live longest in the memory of the visitor is the tomb of Pasteur in a small chapel at one end of the main corridor in the Institute building. Above the arched doorway leading into the chapel is the simple inscription, "The Repose Pasteur." What an inspiration it must be to work in the place, permeated by the spirit of the grand man!

One more interesting and remarkable clinic in Paris which I visited is "L'Institut Phophylactique pour L'Extinction Syphilis" founded in 1916 through the untiring efforts of its director, Dr. Arthur Vernes. He has perfected a precipitation test for syphilis much like the Kahn test, antedating, however, the Kahn test. He has also devised an optical instrument by means of which he can read the degree of precipitation on a scale. He uses this test for syphilis and to control treatment. His claim is that he now has a mathematical measure of syphilitic infection. In the pre-

paration of his test material every step is mechanically performed. He uses an alcoholic extract of horse's heart prepared in a most particular manner.

This is marketed under the name "Péréthynol." His work is considered so valuable that the Government has recently increased its appropriation for the work and now the huge out-patient clinic and large laboratories will shortly be housed in one large building. Vernes uses all the well known remedies. His claim is that he has an accurate control of treatment by a mathematical measure of the infection. He calls this new method, syphillimetry. His clinic is worth seeing and his work must be given serious consideration. He may have the method by which syphilis can eventually be controlled.

So, I have finished for the present. If this is of interest to the "Journal" readers I shall be glad to send other letters from time to time.

If any of you readers would care to have a more detailed account of the things which I have briefly sketched, or if any one would like special information about medical matters in Vienna, I shall be glad to answer you in these letters to the best of my ability.

Sincerely,

LOUIS M. WARFIELD.

MERCUROCHROME-220 SOLUBLE IN ROCKY MOUNTAIN SPOTTED FEVER

H. P. Greeley, Madison, Wis. (Journal A. M. A., Nov. 8, 1924), reports a case of Rocky Mountain spotted fever which was clinically arrested by mercurochrome given intravenously, with the exception of the headache and painful neck, which continued for five days. He asks if it is likely that in the helter skelter use of intravenous medication tick fever may be more responsive because of its pathology than some other conditions; and hopes that his experience may lead those in the West, where the fever is so fatal, to give mercurochrome a further trial.

For the Rockefeller Institute for Medical Research.

The Rockefeller Institute for Medical Research has announced the release of the drug known as Tryparsamide for use in the treatment of human and animal trypanosomiasis (African sleeping sickness and *mal de cadenas*) and selected cases of syphilis of the central nervous system. This action is based on results reported from clinical investigations which have been in progress for several years. The drug will be manufactured by the Powers-Weightman-Rosengarten Company of Philadelphia, and will become available through the regular trade channels about January 1, 1925. In releasing the drug for the benefit of the public, the Rockefeller Institute desires it to be known that the Institute does not share in any way in profits that may be derived from the sale of the drug and that, with the cordial cooperation of the manufacturers, provision has been made for the maintenance of a schedule of prices on as low a basis as possible.

Harrison Narcotic Law as It Affects Physicians Is Explained by a Wisconsin Official

By A. H. WILKINSON
Collector of Internal Revenue, District of Wisconsin

TREASURY DEPARTMENT
INTERNAL REVENUE SERVICE

Milwaukee, Wis., December 5, 1924.

Mr. J. G. Crownhart,
The State Medical Society,
558 Jefferson St.,
Milwaukee, Wis.

SIR: In accordance with your request of December 1, 1924, I am enclosing herewith an article which covers in general the Narcotic Law, as it applies to practitioners. I trust it will prove valuable to the readers of the Wisconsin Medical Journal.

Respectfully,
A. H. WILKINSON,
Collector.

PERSONS LIABLE TO REGISTRATION

Any person who prescribes, dispenses or has narcotic drugs or preparations in his possession, must register and pay special tax under this law, if they are legally qualified or permitted to dispense or prescribe medicines or drugs under the state law. A practitioner who makes his first application for registration under this law should apply to the Collector of Internal Revenue, Milwaukee, for forms No. 678A and form No. 713. On the form No. 678A he will give his state registry number and the date of its issue. The name and address of two references must also be given. All spaces calling for information must be filled in. The form should be signed and sworn to. The form No. 713, inventory, must be filled in and sent with the application form No. 678A. If the applicant has no stock of narcotics on hand, he must state so on this form. If the application for registration should cover a partnership, then each partner must file a form No. 678A, following the same procedure as stated above. If the application for registration should cover the liability of a corporation, then each principal officer will file form No. 678A together with a copy of their articles of incorporation. The inventory form can be signed by either member or officer. All remittances must accompany the application and should be in the form of a certified check, draft or money order. The application should read as of the first of the month

in which the applicant intends to do business up to June 30th next.

REREGISTRATION ON FORM NO. 678

On or about June 1st of each year, the Collector's office mails out forms No. 678 and 713 to each registrant. These forms must be filled in completely and returned with the proper remittance on or before July 1 of each year in which liability is incurred. With reference to filing of inventory and date as to when such inventory should be taken, it has been the opinion of certain registrants that this inventory must be taken as of the date on which the application is filed. However, Article 12, of Regulations No. 35 which covers this phase of the law has been modified by mimeograph No. 3020 which reads that inventories can be taken on any date after January 1. This inventory can then be listed on Form No. 713 as of that date. If the proper application forms are not received by a registrant he should apply to the Collector's office for a duplicate set.

DELINQUENCY

Application for registration must be filed on or before July 1st of each year in which liability is incurred. Unless a reasonable cause can be given in writing for failure to file on or before July 1st of each year in which liability is incurred a 25% penalty will be assessed.

SPECIAL TAX STAMPS

After the application has been received with the proper remittance in the Collector's office, a special tax stamp will be issued covering the period for which tax has been paid. This special tax stamp must be posted in a conspicuous place in the taxpayer's office or place of business. Should a special tax stamp become lost or mutilated, the taxpayer should file an affidavit to this effect with the Collector so that a certificate in lieu of the special tax stamp can be issued. In the event that a taxpayer changes his address, he should apply for form 678, transfer, within the month in which such change takes place.

NARCOTIC ORDER FORMS

Any narcotic drugs purchased by a registrant under the narcotic law must be purchased on an official order form from a wholesaler or a manufacturer. The only items that a retail dealer can sell

on an official order form is a one ounce aqueous solution. The practitioner should never issue a prescription for narcotics for his own office use. In order to obtain the proper narcotic order forms, the registrant should apply to the Collector of Internal Revenue for form No. 679. This form must be filled in completely and returned with a remittance of ten cents. When issuing a form to a wholesaler or manufacturer or to a retail dealer for an aqueous solution, the registrant must personally sign this form. Clerks or other office help cannot sign these forms unless the proper power of attorney has been filed with the Collector's office. Care should be exercised in executing these orders. Where narcotic order forms are lost or stolen, a report should be made immediately.

PRESCRIPTIONS

A prescription is a form authorized by the Commissioner of Internal Revenue, approved by the Secretary of the Treasury to legalize the possession of narcotic drugs only where the prescription is issued by a duly registered practitioner to his patient. A prescription must never be used for purchasing office supplies. Prescriptions must only be issued for legitimate medical purposes. When issued to an addict to supply him with his regular amount of narcotics to keep him comfortable, it would be a violation of the Harrison Narcotic Law. Practitioners who issue such prescriptions, the person filling same, and the person receiving the drugs thereon, would become liable. Exceptions to this rule and regulations are where physicians prescribe for an incurable disease such as are recognized by the medical profession or where the prescription was issued to an aged and infirm addict. With reference to the two exceptions outlined above each registrant should supply himself with mimeograph No. 316, which outlines the treatment of narcotic drug addicts permissible under the Harrison Narcotic Law. This mimeograph will be sent upon request. In executing or writing prescriptions a physician must date and sign the prescription as of the date when it was issued. The prescription must bear the full name and address of the patient and the name, address and registry number of the practitioner. The prescription must be written in ink or indelible pencil. Where a physician writes a prescription for an incurable or an aged and infirm addict and where such prescription will be, written for an undeter-

minable length of time, he should endorse thereon either exception No. 1 which covers the treatment of incurable diseases or exception No. 2 which covers an aged and infirm addict. Although the law does not state the amount which a physician should prescribe, he should in all cases prescribe the minimum quantity necessary for the treatment of his certain case.

DISPENSING-RECORDS

Practitioners are permitted to dispense narcotics to bona fide patients without prescriptions or order forms. However, a record of drugs so dispensed must be kept except when the practitioner is in personal attendance upon the patient. A practitioner is not regarded as a personal attendant upon a patient within the intent of the statutes unless he is in personal attendance upon such patient away from his office. The record of dispensing narcotic drugs should show the quantity of narcotic drugs or preparations dispensed or administered, the name and address of the person to whom dispensed or administered and the purpose for which it was dispensed or administered. With reference to registrants such as dentists, oculists, aurists, or other specialists engaged in a lawful profession, who administer in their office practice minute quantities of narcotics in the form of solutions, may keep a record of the date when a stock solution is made or purchased and the date when such stock solution is exhausted. Where pastes or ointments are made or purchased, a record of the date when the container is first opened and the date when its contents are exhausted may be kept.

GENERAL

A practitioner should report all cases of addiction coming to his attention, also file a statement of all legitimate incurable cases where prescriptions will be issued for a certain period. These reports are not compulsory by law but they will aid the taxpayer and the government in ferreting out the unscrupulous addict. The cooperation of the taxpayer is requested for the benefit of the taxpayer and the government. The Collector's office is ready at all times to be of assistance to taxpayers. A taxpayer under this law should also supply himself with a copy of the new state narcotic law which can be obtained from the Senate Mailing Clerk at Madison. This law is known as the "State Narcotic Law—Chapter 392, Laws of 1923."

Medical Certification for Marriage; a Review of the Wisconsin Enactments

By FRED S. HALL

Associate Director, Charity Organization Department, Russell Sage Foundation,
New York City

The Wisconsin law requiring medical certification for marriage took effect ten years ago last January. It is appropriate, therefore, than an appraisal of its accomplishments should be made at this time. Such an appraisal has been attempted by the writer of this article in a pamphlet just published by the Russell Sage Foundation.¹ Material gathered on the subject in 1921 and 1922 was set aside for a considerable period and is now published with supplementary material more recently collected. Though the evidence obtained is not conclusive, the writer is of the opinion that the law has been of value and is capable of being made much more effective by amendment at certain points and by the adoption of higher standards of administration.

The original law, passed in 1913, seemed to require laboratory tests in every case for a \$3.00 fee at a time when free laboratory service was not provided by the state. A controversy arose, therefore, which seriously injured the cause which the sponsors of the proposal had at heart. Moreover, a serious mistake was made in that the co-operation of the organized medical profession was not sought when the movement was initiated. In its report to the State Medical Society in February, 1915, the society's Committee on Public Policy and Legislation stated that the law of 1913 "was drafted and passed without having been reviewed by any of the members of the committee of the State Medical Society charged with the responsibility of keeping track of questions of health and sanitation measures."

Editorials in the *Wisconsin Medical Journal* indicate, nevertheless, that the State Medical Society fully recognized the educational benefits of the law, its opposition being not to the requirement of a medical certificate but to the type of examination required. Early in 1914 the situation in this particular became much confused because of a decision of the Attorney General that Wassermann tests were not required. This decision was soon

reversed by a circuit court, and the latter decision was itself reversed a few months later by the Supreme Court of the state. The demoralizing effect of these conflicting opinions, according to the *Wisconsin Medical Journal*, was "a feeling of helplessness followed by indifference on the part of the medical profession; and in some quarters, at least, a degeneration of the examination into a mere perfunctory formality."

It is a tribute to the vitality of the fundamental principle upon which the law is based that after so bad a start it was able to survive in 1915 in spite of several efforts made in that year for its repeal, and in spite of the more nearly successful effort made in 1923. The repeal bill originated in the latter year with the very popular member of the Assembly who introduced it, and several hundred letters advocating its passage were received by assemblymen. The writer was permitted to examine a large package of these letters. Among 35 read, four urged the repeal of the law because it violated "medical freedom;" one referred to it as providing "graft for the medics" and another as assisting the power of allopathic domination." Still another writer denounced the law because of its connection with "regular medicine."

A modified law was suggested by the State Medical Society in 1915 and was printed in the *Wisconsin Medical Journal* for February of that year. This bill was apparently never introduced, though one of its important features—the provision for laboratory tests at the discretion of the examining physician—was embodied in the amendment finally passed.

The most important changes made by the law of 1915 provided for free laboratory service by the state, and required laboratory tests only when the examining physician believed them to be necessary. The fee was also reduced from \$3.00 to \$2.00. The revised law has met with no such opposition from physicians as was shown when the original measure took effect. Nevertheless, very contradictory opinions have been expressed as to its accomplishments, including the charge that large numbers of physicians, or even most physicians when they have no reason to suspect the presence

¹Hall, Fred S., *Medical Certification for Marriage, An Account of the Administration of this Feature of the Wisconsin Law in Relation to the Venereal Diseases*. New York, Russell Sage Foundation, 1924. 92 pages. Price, fifty cents.



THE JOURNAL BOOK SHELF

Medical and Sanitary Inspection of Schools. By S. W. Newmayer, A.B., M.D. Lea & Febiger.

Diseases of Middle Life. By Frank A. Craig, M.D. F. A. Davis Co.

Diabetes: Its Treatment by Insulin and Diet. A Handbook for the Patient. By Orlando H. Petty, M.D., Graduate School of Medicine, University of Pennsylvania. Cloth, 111 pages. The F. A. Davis Co., Philadelphia, \$1.50.

Hygiene and Public Health. In this book the author has epitomized many branches of science related to hygiene and public health. The book contains about three hundred pages and treats of household hygiene, child hygiene, school and industrial hygiene, public water supply, foods, meat foods, milk supply, disposal of wastes, public nuisances, prevention of infectious diseases, and federal hygiene.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

RECEIVED FOR REVIEW

Bacteria in Relation to Man. By Jean Broadhurst, Ph.D., Associate Professor of Biology, Teachers' College, Columbia University. A Study-Text in General Microbiology. Octavo 147 illustrations, 304 pages. J. B. Lippincott Company, Philadelphia and London. Price \$3.00.

Local Anesthesia Simplified. By John Jacob Posner, D.D.S., Chief of the Dental Department Harlem Dispensary, Visiting Dental Surgeon, St. Luke's Hospital, New York. Fifty-five illustrations. C. V. Mosby Company, St. Louis, 1924.

The Medical Sciences in the German Universities. A study in the history of civilization. Translated from the German by Theodor Billroth. The Macmillan Company, New York.

The Surgical Clinics of North America. Portland-Seattle Number, October, 1924. Volume IV, Number V, 263 pages with 112 illustrations. Paper \$12.00; Cloth \$16.00 net. W. B. Saunders Company, Philadelphia and London.

REVIEWED

Concealed Tuberculosis or "The Tired Sickness." George Douglas Head, B.S., M.D. P. Blakiston's Son & Co., Philadelphia; pp. 137.

The author has very effectively presented the neglected subject of occult tuberculosis. He rightfully states that manifest tuberculosis of various structures and organs forms a minority of the actual infections. To a vast group of "chronic complainers and real sufferers" presenting the whole gamut of symptoms attributable to nervous instability and physical weakness the criteria of virtual negative physical findings and a positive reaction to the subcutaneous administration of tuberculin are applied to denominate the underlying etiology. History of exposure to open cases of tuberculosis and a close scrutiny of the symptomatology are frequently determining factors in suggesting this possibility. Dr. Head has divided his cases into several groups from the subjective viewpoint, viz., chest pain, nervous exhaustion, cold and cough, abdominal distress.

Strong is the case made by the author, more conclusive evidence than a positive tuberculin test will be required to relegate nervous exhaustion and neurocirculatory asthenia to the realm of medical discards. Clinicians in general admit the inadequacy of such terms, but with even less conclusive proof we are asked to accept a new explanation for most obscure symptom-complexes. The move is in the right direction, but conservatism and scientific accuracy demand further evidence. The rest cure advised, together with improved nutrition, would surely meet either group of cases. As has been suggested, the tuberculin reaction, either von Pirquet or the subcutaneous route, is not generally accepted as conclusive evidence of tuberculous activity. Such positive reactions denote hypersensitivity and the incidence of latent or arrested infection is admittedly high.

Certain objections may be offered to the author's interpretation of inconstant basal crackles as pleuritic frictions or to his explanation of the epigastric pain of myocarditis. The reviewer cannot agree in the protective action of fat against tuberculous invasion. Indeed the modern tendency is rather against the old plan of fattening tuberculous individuals. Just why Phito Water is advised in preference to non-proprietary saline laxatives is not explained. But these are minor objections and the fact that this text will stimulate the more adequate study of these very obscure cases of nervous and physical incompetency, is ample justification for such an addition to this important branch of medical literature.—W. S. M.

Manual of Psychiatry. Paul E. Bowers, M.S., M.D., pp. 365. W. B. Saunders Company, Philadelphia and London.

This manual of mental diseases is a most comprehensive volume for the student and general practitioner of medicine. Its contents and the manner of treatment of the subject are concise and well-oriented. The devia-

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tion from the conventional order of introducing the subject by the methods of examination is disturbing at first; but on further consideration the evolution of the problem from its basic psychology through derangements of the normal to clinical psychiatry is indeed a logical course. Particularly helpful will the practitioner find the section dealing with the diagnostic grouping of symptoms of the psychoses. The chapter on the relationship of insanity to crime forms a rather disjointed conclusion to an otherwise very orderly presentation.

Certain differences of opinion are bound to arise from the inclusion of certain materials and the omissions of others in a text of this proportion covering such a vast field. For instance, the reviewer is disappointed to find so little space devoted to that very pressing subject of the present-day practice, the sequelae or residua of encephalitis epidemica. On the other hand, a subject so broad as intelligence studies cannot properly be handled in so concise a text. The failure to mention tryparsamide in the treatment of cerebro-spinal lues or paresis is an unpardonable oversight in view of the conclusive reports of our Wisconsin confreres.—*W. S. M.*

Organotherapy in General Practice. G. W. Carnrick Company; pp. 253.

The advertisement of proprietary preparations has been placed on a higher scale in recent years by manufacturing concerns. Biologic preparations, it seems, should stand the need for advertising. Modifications of acknowledged active principles of glands of internal secretions and combinations, great and marvelous to behold, partake too patently of "shot-gun" propensities to warrant general acceptance. The presentation of organotherapy by these manufacturers savors very strongly of the educational propaganda which is being hand-fed to the medical profession. Without entering into detail on this point the obvious inference of a potent element in "Trypsogen" for the treatment of diabetes is ill-timed. Contrary to their statement, no extract of pancreas has been found effective on oral administration. In spite of the painstaking review of the literature on the various subjects such detracting notes as Prof. Carlson's on the general subject of poorly controlled organotherapy and more specifically on the duodenal secretion have escaped attention.

Much valuable information has been collected in this volume, but its primary motive is advertisement. It seems scarcely fair to tax the medical man two dollars a copy for the advancement of this end.—*W. S. M.*

EUGENICS LAW

(Continued from page 533.)

of infection, give applicants no physical examination. It is unfortunate that the law is so ambiguously worded that some legal justification is given for such a course. The law proposed by the State Medical Society in 1915 was not open to this criticism.

In 1921 a letter of inquiry was sent by the writer to 1,878 Wisconsin physicians and 1,110

replies were received. In 896 of these replies, comments were made upon the law or descriptions given of the examination procedures followed. These remarks proved to be the most valuable part of the replies and liberal quotations are made from them in the pamphlet referred to. There were 785 physicians who stated that they gave a clinical examination to every applicant, and 242 (or over 23 per cent) who reported that they did not always do so. Details are presented as to the types of physical examinations reported, the use of laboratory tests and the opinions of physicians concerning the adequacy or inadequacy of the fee in view of the free laboratory service provided by the state. In order to learn whether any physicians were conspicuous because of the large number of certificates they issued, 1,267 consecutive certificates filed in Milwaukee County were examined for the writer. This test showed no marked centralization of examinations in the hands of a few men. In their replies to the writer 364 physicians expressed or clearly implied opinions as to the law. Of these nearly two-thirds were favorable in the sense that the law as it is was believed to have been of value. The physicians who gave clinical examinations in every case were much more favorable than those who did not. Liberal quotations are made from these opinions, 58 of the favorable opinions being presented and 37 which were unfavorable. The favorable opinions are classified thus:

Marriages postponed or abandoned when infection was shown.

Treatment taken in preparation for the examination. A general deterrent influence.

More general comments.

The classification used for the unfavorable replies reads:

The infected marry because of incompetent, careless or dishonest examiners.

Prevention is limited to active cases.

Those who take treatment before marriage would do so even were there no law.

A false feeling of security is given.

General criticisms.

Eleven criticisms of the law are considered in the pamphlet. Seven of these, for reasons fully discussed, are not regarded as valid, or as indicating that the law has failed to accomplish its purpose. These seven criticisms are that women are not required to present certificates; that the examinations do not give protection to women; that the right to make examinations is not limited

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Food not adapted to an infant's digestion, elements not in proper proportion to normal or individual needs, overfeeding, underfeeding, sluggish peristalsis, are the most common causes of constipation in the artificially-fed baby.

Every one of these determined factors being commonly associated with the daily intake of food, treatment other than dietetic is rarely necessary or advisable.

Suggestions that point out the procedure to be followed in adjusting the diet to overcome constipation due to the stated causes are embodied in a 16-page pamphlet, which will be sent to physicians upon request. The suggestions offered are based upon careful observation extending over a long period and should be of much service to every physician who is at all interested in infant feeding.

Mellin's Food Co., 177 State Street Boston, Mass.

to public health officers or specially equipped private physicians; that the marriage of men found to be diseased is not prevented; that a false assurance of safety is given; that the spread of infection through illicit sex relations is not prevented by the prevention of marriage; and that the law is evaded through marriage in other states. Four additional criticisms, which are held to be justified, indicate that the following changes are needed in the law: the legal fee should be at least \$3.00; the law should be limited to the communicable stages of a venereal disease; if a \$5.00 fee can be obtained a Wassermann test should be required in every case; and supervision over the administration of the law should be placed in the hands of the State Board of Health.

Most states have hesitated to require medical examinations as a means of preventing marriage where a venereal disease exists because of the administrative difficulties involved. Wisconsin deserves great credit for its pioneer action in this important field. Its course has drawn attention to the subject throughout the United States with an effectiveness impossible in any other way. During the ten years that the law has been in force, and despite its defects, it has built up for itself a support which has so far made repeal impossible.

The law has had marked educational value both through the discussion it has caused and through the fact that many men receive a warning as to the dangers of venereal infection at the time when they are most likely to heed it. In addition the law has been a real factor in inducing men who expect to marry to make sure that they are fit, even before applying for a medical certificate. To some extent examinations have revealed contagious conditions and have caused postponement of marriage. While the evidence for the two latter conclusions is considerable, it is not as strong as it should be, owing to the fact that an apparent minority of the physicians of the state, in spite of the requirement of the law for a "thorough examination" in every case, issue certificates sometimes without any form of physical examination. When physical examinations are given they seem as a rule to be as thorough as the physician is able to make them, and when indications appear of previous infection the physician usually has laboratory tests made. The state's free laboratory service is used for this purpose, but not so generally as it should be.

The factor operating most seriously today to

undermine the law is the apparent satisfaction of its friends with the existing situation. So far as is known, no attempt is being made by social or other agencies to eliminate the defects and ambiguities of the law or to bring about better administration. The narrow margin by which repeal was avoided in 1923 indicates a sentiment which may succeed when the next attack is made unless those who believe in the law organize their forces and demonstrate that the measure is capable of achieving much more good than has been possible up to the present.

NATUROPATHS NOT LICENSED

That there is no statute in Wisconsin regulating the practice of "naturopathy," as such, was the statement of the Attorney General's office in an opinion to Dr. Robert E. Flynn, secretary of the State Board of Medical Examiners. The opinion follows:

December 30, 1924.

Dr. Robert E. Flynn, Secretary,
Wisconsin State Board of Medical Examiners,
La Crosse, Wisconsin.

Dear Sir:

You state that Dr. Arthur Procter, of Davenport, Iowa, has made inquiry whether the practice of Naturopathy is licensed in the state of Wisconsin. He says:

"The term Naturopathy is used to designate the use of all Natural Therapeutic agents and embraces hydrotherapy, massage, mechano-electro-therapy, dietetics, manipulation, adjustment, remedial gymnastics, etc."

You direct me to Sec. 1435*d* of the Statutes, relating to licenses for the practice of massage, hydrotherapy or educational gymnastics, which section has since been repealed, but re-enacted in Secs. 147.03 to 147.05, inclusive.

Your board is authorized to grant a certificate of registration to any one who has passed an examination and other tests provided for by statute. Without a license or a certificate of registration, no one is permitted to practice medicine, surgery, osteopathy or any other system of treating bodily or mental ailments or injuries of human beings. (See Sec. 147.02.)

Insofar as the practice of naturopathy overlaps the practice of a chiropractor, it is necessary for the one so practicing to comply with the statutory regulations appertaining to the practice of a chiropractor. You are advised, therefore, that while we have no specific statute regulating the practice of naturopathy, as defined in the letter of Dr. Procter, still, we have regulations of the practice of massage and hydrotherapy, as well as the practice of a chiropractor, which must be complied with by any one before he will be permitted to practice them.

Very truly yours,
J. E. MESSERSCHMIDT.

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The Surgery of Jaundice*

By JOHN B. DEEVER, M.D.,
Philadelphia, Pa.

The importance of the topic I have chosen for discussion is one which has impressed me for some time and I hope to stimulate in you the same interest that it has for me.

In the light of my surgical experience with jaundiced patients, it seems strange that jaundice should for so long have been considered purely a medical ailment and have been treated as such. It is only natural that in my work I find that the majority of cases of jaundice are not medical conditions, and that the pathology presented at operation rarely, if ever, lends itself to relief by other than mechanical, surgical means. I, therefore, would suggest that jaundice be as much if not more stressed in the category of surgical than of medical diseases. The problem is interesting alike to the surgeon and the internist, particularly from a diagnostic point of view. In fact, there are few other conditions in medicine and surgery in which the results of mutual cooperation between pathologists, physiologists, internists and surgeons have been of such value as in the study of jaundice. It is due to this joint study that, first of all, the classification of jaundice has been changed from a clinical entity to that of a symptom, and likewise that the definition of the disorder seems likely to undergo modification. Until quite recently icterus was defined as an extravasation of bile into the blood, indicating that the presence of bile in the blood was an abnormality. But the results of investigations, notably by Van den Bergh and his associates, seem to demonstrate that a certain percentage of bile is normally present in all blood sera and it is when that percentage is increased beyond a certain amount that it infiltrates the tissues and jaundice ensues. In fact, it is quite possible that not only the amount, but also the "quality" of the bile is of importance in tissue may assign to that "quality." If this theory proves correct, the definition would be changed to

read: Icterus—a condition in which an excessive amount of bile of certain qualitative characteristics circulating in the blood causes a yellowish pigmentation of the skin and mucous membranes.

Naunyn and his followers describe jaundice as a diseased condition, or rather a group of pathologic phenomena due to disturbed secretion of bile and consequent flooding of the system with bile. Another result of diligent investigation into the true nature of jaundice is the discovery of the important fact that jaundice is not always limited to hepatic pathology but that there exists a definite relationship between the spleen, and, indeed, the whole reticulo-endothelial system and the liver in the production of the blood changes that lead to the clinical picture of jaundice. But behind the clinical picture there lies not only the pathogenesis, but also the surgical significance of certain types of jaundice and it is to the latter that I wish to confine my remarks at this time.

SURGICAL SIGNIFICANCE

The surgeon is apt to recognize three pathogenic types of jaundice. The first is due to obstruction, the second to excess and perverted hemolysis, and the third is a post-operative type due to infection and often to operative trauma; from a broad clinical point of view, a division into painful and painless jaundice also seems logical.

In passing it may be said that in painful jaundice the attacks of acute pain precede the appearance of jaundice. It is also worth while to call attention to the importance of the proper interpretation of the history of pain; for often such attacks of pain are the discomforts due to the accumulation of gas in the stomach and intestines, and close inquiry will show that the *pain* has not been severe enough to require an anodyne for relief. Painful jaundice is more amenable to permanent relief by operation than painless jaundice, so that from the standpoint of the patient's future, it is not so serious a condition as the painless type.

The most common types of jaundice are the jaundice of gallstone obstruction, of carcinoma of

*Read before Inter-State Post Graduate Assembly of America, Milwaukee, Wis., October 28, 1924.

the head of the pancreas, and of cholangitis, the two latter of the painless type. The jaundice of the splenomegalies is not so frequent as the ones just mentioned. A type of painless jaundice the surgeon too often sees is that due to injury of the common or hepatic duct following operation.

CATARRHAL JAUNDICE

So-called catarrhal painless jaundice, having its origin in a gastro-duodenal irritation, is the result of a mild cholangitis or damage to the liver cell which usually subsides in a short time if the proper diet is observed. In the majority of cases of chronic catarrhal jaundice that have not yielded to the recognized non-surgical treatment, I have found a mild pancreatitis and cholangitis, which I believe was caused by the infection having extended from the papilla of Vater into the pancreatic and common bile ducts. At operation in this type of case the pancreas will be found to be increased in density and enlarged throughout its entirety, differing in this respect from the cases of chronic pancreatitis caused by lymph-borne infection where the inflammation usually involves and is limited to the head of the pancreas. In catarrhal jaundice, with a decidedly pronounced cholangitis, that does not yield promptly to medication, surgical, and the so-called medical, bile drainage is indicated.

The rarer forms of jaundice due to carcinoma of the bile ducts, diverticulum of the common duct, nervous shock, acute hemolysis, retro-peritoneal and other infections are of interest, but not so important practically as are the other forms.

Jaundice, following infection elsewhere than in the upper abdomen, is not often seen, but it does occur. I have in mind two cases in particular. In one, a superficial infection of the leg immediately above the ankle in the act of spreading caused abscess formation high up on the leg and the fleshy portion of the thigh, with enlargement of the lower chain of inguinal lymph glands of the corresponding side, as revealed by deep palpation below Poupart's ligament. This was followed by a retro-peritoneal purulent collection and jaundice. A provisional diagnosis of appendicitis was made and at operation the retroperitoneal collection was found to open into the peritoneal cavity; a large amount of pus was evacuated. The appendix was normal.

In the second case, a more recent one, jaundice with acute hemolysis occurred in a young woman

suffering from infection following self-induced abortion. Autopsy showed pelvic infection and a perforated uterus; the spleen weighed 240 gms., was firm with the notch prominent, and a smooth surface. It cut readily and the cut surface, firm, dry and dark red was the seat of an acute splenic tumor in an early stage.

Sections:

1. Gangrenous endometritis. Acute suppurative metritis.
2. Acute hyperplastic (infectious) splenic tumor.
3. Lungs—Passive congestion and edema.
4. As No. 1.
5. Liver—Jaundice, marked cloudy swelling, acute interstitial hepatitis, formation of bile thrombi.
6. Same as No. 5.
7. Kidney—Acute glomerulo-nephritis, with necrosis of tubular epithelium and hyaline thrombosis of capillaries.
8. Kidney—same as No. 7.
9. Lung—as No. 3.
10. As No. 1.

Complete Blood Count on day of admission,

	July 26th, 1924.	
Hemo.		75
R. B. C.		4,450,000
W. B. C.		34,200
Poly. Neutr.		91
Lymph.		6
L. Mono.		2
Trans.		1
Eosin.		0

Coagulation time, 3¾ minutes.

Complete blood counts on—

	July 27th	July 28th	July 29th (day of death)
Hemo.	65	40	25
R. B. C.	2,130,000	1,650,000	1,920,000
W. B. C.	32,200	19,000	5,800
Poly. Neutr. ...	92	90	62
Lymph.	4	6	32
L. Mono.	1	2	4
Trans.	2	1	2
Eosin.	1	1	0

Jaundice caused by poisons, nervousness, fright, grief and so forth is not pertinent to our subject.

OBSTRUCTIVE JAUNDICE

Obstructive jaundice is the most common type with which the surgeon has to deal. It has its origin in the liver and is due to gradual or sudden, partial or complete, temporary or permanent obstruction, either within or without the ducts, to the flow of bile. Complete or partial obstruction may result from tumor formation at the papilla of Vater, in the common duct, or in the head of the pancreas; or it may be due to stone

formation and to stricture of the papilla of Vater, or stricture of the common or of the hepatic duct. While it is possible for small stones to pass through the papilla of Vater, larger ones will lodge at this point with increased obstruction as the result of inflammation caused by their presence.

Sufficient stress is not being placed upon the contracted papilla of Vater as a cause of at least temporary obstruction of the common duct. I have met with this condition often enough when with the common duct opened nothing but the tiniest metal probe, properly shaped, followed by rapid dilatation with a series of larger probes, could pass through the papilla, to convince me that this is one of the many pathologic phenomena of gallstone disease. Assuming that in the average patient bile can be aspirated by the duodenal tube, this condition would preclude any such possibility.

The contraction I refer to is not a reflex spasm of the muscle of Oddi, but a stricture in the formative stage. If resolution does not occur or the stricture is not dilated, it leads to permanent obstruction of the papilla. When the pancreas extends on to the portion of the duodenal wall, including the terminal portion of the common duct, as is occasionally the case, inflammation of the same may cause constriction of the papilla of Vater. This may be caused by pancreatitis of the portion of the pancreas, which in the occasional case is present in the walls of the duodenum at the site of entrance of the common duct.

Obstruction of the common duct may also result from outside compression, as from neoplasms, either primary or metastatic. It is a well-known fact that the numerous lymphatics along the course of the hepatic vessels are favorite sites of carcinomatous infiltration.

Obstruction, usually complete, may also result from compression due to syphilitic processes, as well as from the scars of duodenal and gastric ulcers, also from carcinoma of the gastro-hepatic omentum at the site of the transverse fissure of the liver. Obstructive jaundice is also sometimes the result of conditions in the smaller ducts and the tiniest ducts within the liver itself, due to infectious cholangitis or to the presence of stone in the hepatic duct. And then there is the most common type of obstruction which usually is partial and intermittent, associated with stone or

stones in the common duct with ball-valve action. These types of jaundice can be relieved only by operation.

HEMOLYTIC JAUNDICE

Hemolytic jaundice was formerly considered to be of purely hematogenous origin. That is to say, the phenomena of increased fragility of the red cells with subsequent disintegration and formation of bile pigment, to which the jaundice is due, takes place independent of the bile-forming function of the liver. Here again investigation has modified our conception of the process. A host of investigators have established a close relationship between hemolytic jaundice and the behavior of the liver cells. As a result of diminished resistance (possibly one of the basic causes of hemolytic jaundice) the red blood cells are destroyed by the spleen in large numbers and the liver is flooded with pigment which increases the viscosity of the bile and produces inspissated plugs in the small biliary ducts. Since the pressure of the bile itself does not suffice to send it onward it accumulates and is forced into the lymphatic system and thence into the blood stream with icterus as a result. In fact, there is the same thrombosis of the bile capillaries as in obstructive jaundice.

The term hemolytic jaundice is usually associated in our minds with disease of the spleen and to the surgical mind it generally suggests the association of so-called splenic anemia, pernicious anemia, or Banti's disease. It must be borne in mind, however, that these original splenic conditions are more often than not related to disease of the liver and the gall bladder, particularly cholelithiasis. This relationship is explained by William J. Mayo somewhat as follows: The predisposition to the formation of gallstones is due to the viscosity of the blood caused by the flooding of the liver with blood pigment set free by the destruction of numerous red blood cells in the spleen. This may lead to cholangitis and finally to cirrhosis of the liver. The clinical picture of hemolytic jaundice, as you are aware, consists of splenomegaly, acholuric jaundice and more or less marked anemia. The condition can be relieved only by removal of the spleen, which cannot be done too early.

In addition to the cholangitis and peri-cholangitis associated with chronic pancreatitis either of the head or of the entire pancreas, will occasionally be associated a chronic splenitis with jaundice from which relief likewise is obtained only by

removal of the spleen and establishing bile drainage, by either a cholecystostomy or a cholecysto-duodenostomy or a choledochostomy.

BILIARY CIRRHOSIS

The chronic jaundice of biliary cirrhosis can be relieved only by a drainage operation, but it must be done early if any good is to be accomplished. William J. Mayo has made this clear in a recent description of biliary cirrhosis, which he divides into three types. He states, and rightly too, that biliary cirrhosis is most often the secondary result of infectious and obstructive processes having their origin in the gall bladder or the common duct, usually from gallstone disease. Obstruction of the small bile ducts leads to early and continuous jaundice. The most common cause of obstruction is stone in the common duct and enlargement of the head of the pancreas. In this type of biliary cirrhosis the splenic enlargement is not marked, but the liver is definitely enlarged and is dark in color, soft, and bleeds easily on the slightest injury. Removal of the spleen is not indicated, but the infection must be removed, which means removal of the gallstones or of the infected gall bladder and, perhaps in addition, also drainage of the common bile duct. This type of cirrhosis is very promising if operated early.

In the second type, less common than the first, there is no demonstrable infection or obstruction in the bile ducts. The ducts are much thickened; jaundice is chronic and splenic enlargement is much more pronounced than in the first type. The liver is also enlarged and rather firm. In these cases bile drainage is the indicated procedure, and sometimes removal of the spleen. When the gall bladder is in comparatively good shape with the cystic duct distended with bile, but patulous, cholecysto-duodenostomy should be considered. In the third type of cirrhosis, described by Mayo as the splenic type, the disease is very chronic and little can be done. Removal of the spleen may sometimes be of value. Although the relationship of these various types of cirrhosis of the liver to the spleen and hemolytic jaundice is still obscure, Mayo's observations, nevertheless, are of great practical value.

Post-operative jaundice constitutes, perhaps, the most difficult type for the surgeon to treat. While to some extent it may be a reflection upon his technique, the entire blame need not always fall on him; for oftentimes it is unavoidable,

owing to the extent and degree of pathology present, which I have no doubt is frequently due to belated operation.

POST-OPERATIVE JAUNDICE

What are the conditions that lead to this post-operative phenomenon? Most often injury to the common bile duct and occasionally the hepatic duct and stirring up of infection by the traumatism of the operation. For example, after cholecystectomy or cholecystostomy, more likely the former, where the patient was not previously jaundiced, jaundice occasionally appears two or three days after operation and, in my experience, usually clears up in a comparatively short time. It is evidently cholangitic, due to disturbed liver function, the result of manipulation during operation. To the inexperienced observer the occurrence of such jaundice may give considerable unnecessary anxiety and naturally bring up the question of possible injury to the common or to the hepatic duct. Post-operative jaundice, occurring sometime after operation, resembles carcinoma of the head of the pancreas in that it gradually increases in intensity and is accompanied by itching, weakness, loss of weight, loss of appetite and nausea, the last, however, not so conspicuous as in the jaundice of carcinoma. While the history of a previous operation suggests chronic pancreatitis it is difficult, and I might say almost impossible to differentiate between chronic pancreatitis and carcinoma of the head of the pancreas, except by operation. A distinguishing feature of carcinoma may be general and rapid decline in health, and marked loss of weight. The jaundice is greenish in tint and unvarying and preceded by nausea, loss of appetite and increasing weakness. While in chronic pancreatitis there is loss of weight and the jaundice is mild, increasing in intensity and accompanied by itching; the appetite remains good.

In calculous obstruction of the common duct the jaundice is intermittent and varying in intensity, the urine and stools showing the same variations; chills, sweats, fever and colicky pain usually precede the jaundice.

Sudden onset of clay colored stools, and jaundice accompanied by colicky pain may be taken to indicate obstruction within the bile ducts.

On the other hand, jaundice in a young person preceded by symptoms of gastric catarrh is probably a catarrhal jaundice. In this and certain

types of non-obstructive jaundice the stools are not clay-colored.

I have digressed somewhat from the subject of post-operative jaundice to give these few guiding points in the differential diagnosis of some kinds of obstructive surgical jaundice which may be of value when properly correlated with the history, physical examination and laboratory findings.

In the jaundice of cholangitis not due to calculus obstruction of the common duct, but to choledochitis with thickening of the walls of the duct, anastomosis of the gall bladder to the duodenum, where the cystic duct is patulous and the gall bladder comparatively normal, is, perhaps, the best operative procedure. Where the gall bladder is present and intact and the lesion is a non-traumatic stricture of the common duct, this operation will terminate the jaundice, but it is not the operation of choice. The better procedure is dilatation of the stricture by opening the duct and the introduction of a T-tube. Some years ago I operated upon a colleague who was thought to have carcinoma of the head of the pancreas, and in whom was found a stricture of the hepatic duct. I dilated the stricture, as described, introduced a T-tube, which was worn for several weeks. The doctor continues to be well now ten years since the operation.

The exposure of the field of operation in these secondary cases requires care, especially in the presence of extensive and well organized adhesions, which often present a conglomerate mass, entangling alliances as it were, often difficult to disentangle. It has been my experience that in the cases where the gall bladder has been removed, the adhesions are more troublesome to deal with than when a cholecystostomy has been done. A common finding is the great omentum, the hepatic flexure of the colon, the duodenum and the pylorus adherent to each other and to the under surface of the liver corresponding to the gall bladder bed. When the gall bladder has been drained the adhesions are not so deeply placed. In the former type of cases I often have had to spend more time in freeing adhesions and the adherent viscera than in the operative technique upon the duct.

BILE DUCT INJURIES

What are the usual operative findings in the case of bile duct injury? The free border of the gastro-hepatic (lesser) omentum presents a more

or less cicatrised and thinned-out appearance. The foramen of Winslow is occluded. The portal vein is more than usually prominent. Delicate dissection fails, except in a few instances, to find the lower end of the common duct. The common duct can, sometimes, be identified by opening the duodenum, locating the papilla of Vater and passing a probe through it into the lower portion of the common duct, but I do not recommend this procedure. Careful and painstaking dissection will expose the upper end of the duct, often in a mass of cicatricial tissue or in the shape of a bulbous end; the latter being identified by hypodermic aspiration. Where only cicatricial tissue at the site of or close to the transverse fissure of the liver is seen, a carefully directed incision through this inflammatory tissue at its thickest and densest point will yield a free discharge of bile, and thus the duct can be identified. The repair of the duct, in the condition described, may be one of the most trying operations, calling for anatomic knowledge, patience and determination, along with the gentlest manipulation. But the results of operation have given me much satisfaction and the patients great comfort. The successful issue of these cases depends primarily upon the proper exposure of the anatomy involved; for to operate blindly is to operate unsuccessfully.

When the ends of the duct cannot be brought in apposition and sutured I consider it best to anastomose the proximal end with the duodenum, either with or without the aid of an in-lying catheter. But when the proximal end of the duct is long enough to anastomose without the aid of a catheter this should be done.

Hugh Williams, and also Lahey of Boston, have recently reported successful *transplantation* of a common duct fistula into the duodenum, basing the procedure on the established fact that the pressure of the bile being sufficient to keep an external fistula open, there seems to be no reason why the same pressure should not act similarly on an internal fistula, that is, keep it permanently open. Lahey also suggests that in case this simple operation does not prove successful one or the other of the more tried out, but more complicated ones can later be done. I have mentioned these suggestions because they differ somewhat from the methods in vogue by other surgeons. Almost every active surgeon has a method of his own for reconstructing the common bile duct injured at

operation. It is not my intention to describe these, but with your permission I will presently show you the different procedures which I, personally, have found useful.

POST-OPERATIVE DANGERS

The post-operative dangers to the jaundiced patient are hepatic insufficiency and bleeding. But the latter is rarely seen since we are giving chloride of calcium intravenously before operation. But hepatic insufficiency is to be reckoned with, and in my experience, when decidedly pronounced, proves fatal in spite of all measures, such as plenty of fluid consisting of water by mouth and saline and glucose solution by enteroclysis or intravenously. The relationship between hepatic and renal insufficiency is so close that these patients practically die of uraemia. The old saying, an ounce of prevention is worth a pound of cure, here means careful pre-operative examination and pre-operative treatment. Operation, except in some emergency cases, where the urine contains acetone and diacetic acid should not be done until the urine is negative to these. It also means early recognition of a surgical condition. Faith in medical drainage and negative X-ray findings are responsible, in part, for delayed operation, and to no less degree for failure to make an early diagnosis. The determination of liver function by phenoltetrachlorophthalein has been somewhat unsatisfactory in our hands, both with the duodenal tube and the blood methods, inasmuch as when the liver function is decidedly low, it can be determined by other means, as for instance, the symptoms. On the other hand, we have had disappointing complications which we feel were due in large measure to hepatic breakdown when the results of this test indicated that we were safe. Irrespective of the analysis employed, and the one determining the dye in the blood seems the only rational one, we believe that the functions of the liver are so manifold, that any one method, i. e., with dyes, etc., is theoretically liable to a large margin of error. In addition, the margin of safety provided in the liver is a factor making finer distinctions quite difficult to attain. I am convinced beyond a doubt that those of my colleagues who have seen the greatest number of living autopsies in jaundiced patients have the best grasp of the diagnostic situation. Fortunately, or unfortunately if you will, these patients are not as a rule seen by

the surgeon until they have been treated for a period long enough to have missed the best chance which early surgery could have given them. The nearer the patient is to being well when operated the surer he is of getting well.

PREPARATORY TREATMENT

Next to early diagnosis the essentials of success are preparatory treatment in the shape of careful examination, which must include the study of the circulation, the blood sugar, the urine, urinary output, cardiac function and careful scrutiny for focal infections; finally, the patients should be divided into the lean and the fat, and especial treatment accorded the latter.

Obese patients require particular attention in the way of diet and reducing exercises. I do not operate on a fat subject in the presence of high blood sugar, without suitable pre-operative treatment. Insulin, given with judgment, even in the absence of sugar in the urine, is in place. There undoubtedly is a relationship between high blood sugar and the glycogenic function of the liver, and the high temperature in hepatic insufficiency following operation is also significant.

Other factors in causing hepatic insufficiency following operation are too much anesthetization and the amount of traumatism to which the liver in particular has been subjected. In the presence of much pathology, and especially if of long standing, I care not how skillful and gentle the surgeon may be, a certain amount of operative traumatism is unavoidable. When the structures involved in the dissection are welded together as it were, the surgeon may have to resort to the hatchet and the crowbar. I want to impress this upon our medical colleagues. Dillydallying, pussyfooting, sidestepping, sparring for wind in these cases is too often disastrous.

Where the common or hepatic duct has been cut completely across, which is rare, and the accident is recognized at the original operation, it goes without saying, repair of the injury should immediately be made. This will consist simply of suture, care being taken to obtain edge-to-edge apposition. This can as a rule be accomplished without the aid of a rubber tube, but if it cannot be done, I advise using a T-tube in preference to a straight rubber tube, first suturing the posterior walls of the ends of the duct, then introducing the tube, when the suture of the anterior wall is made. The advantage of the T-tube is the immediate

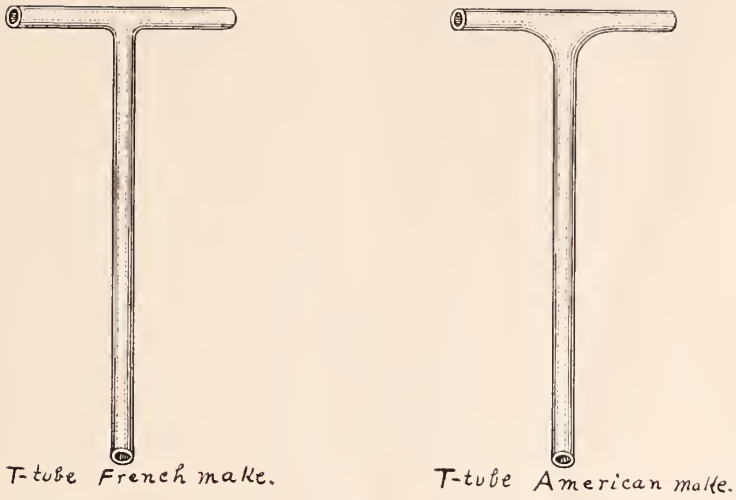


Fig. 1.

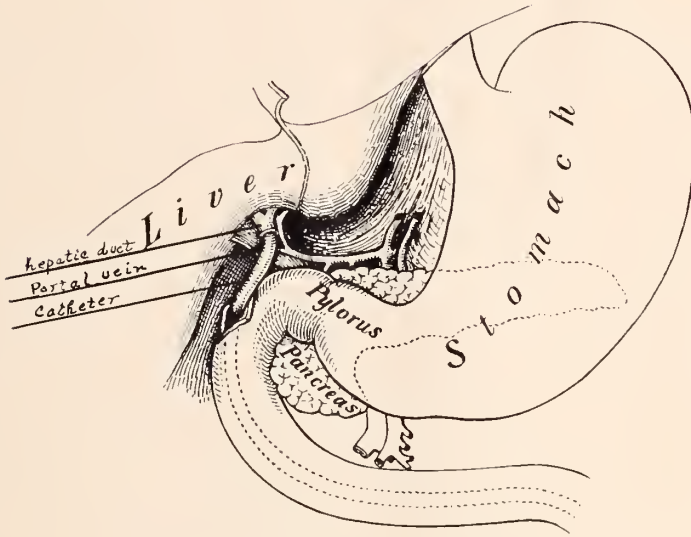


Fig. 2.

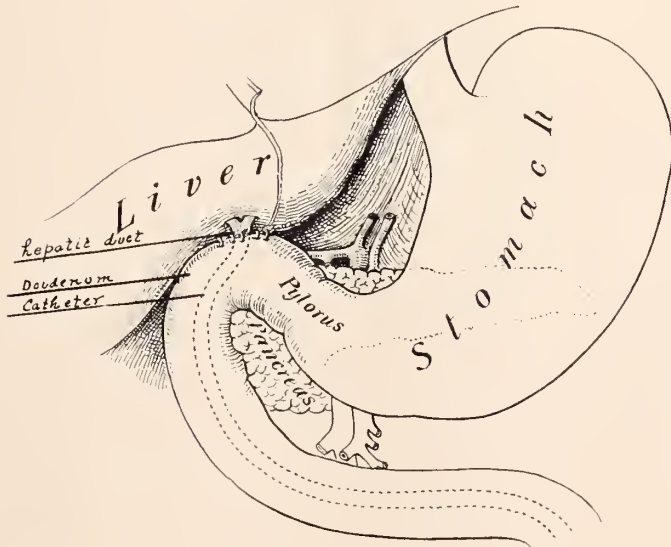


Fig. 3.

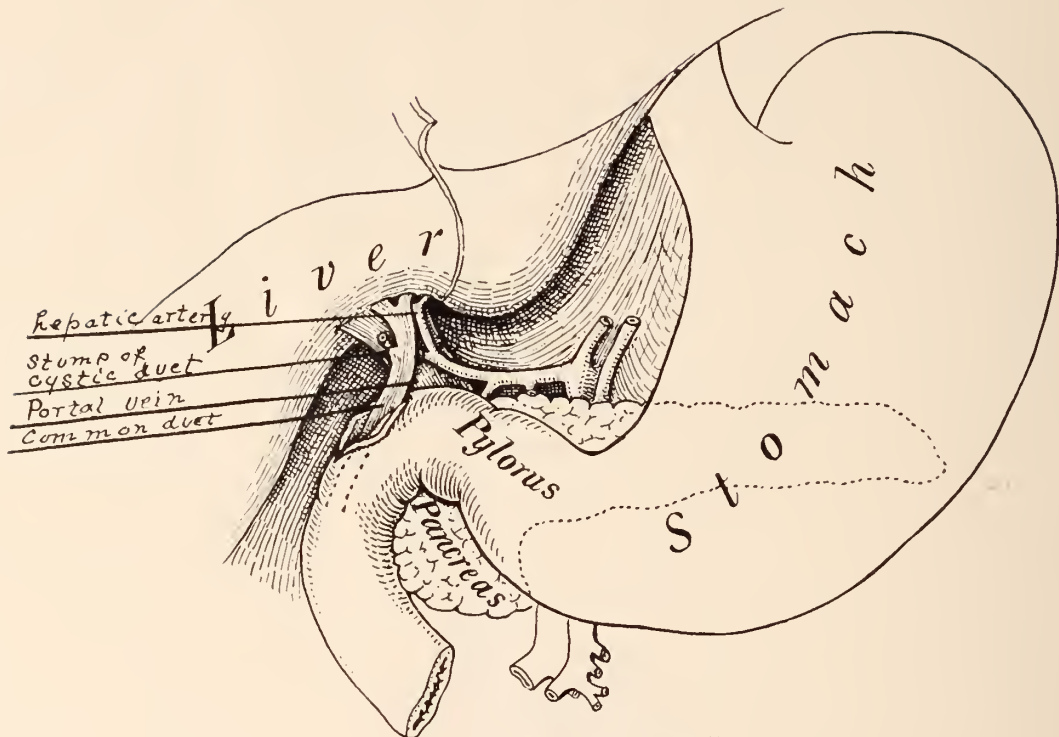


Fig. 4.

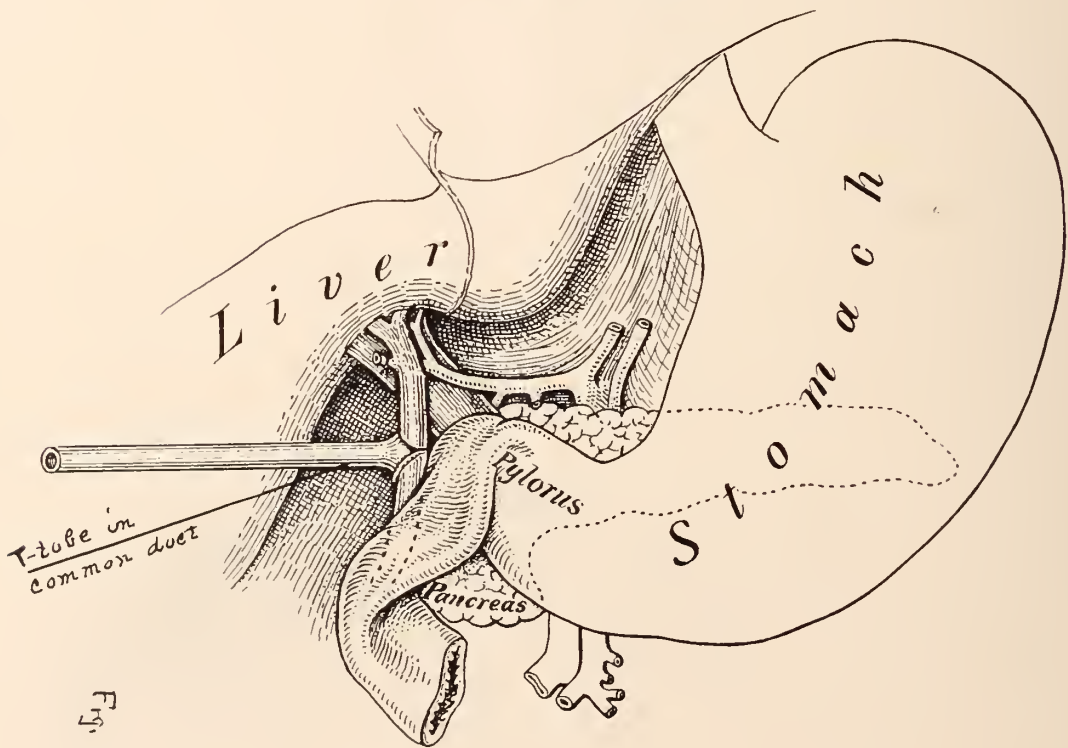


Fig. 5.

and prolonged bile drainage obtained, so important in the treatment of cholangitis so often present.

The more common accident is perhaps partial division of the duct. Such an opening can be closed by suture with little or no trouble.

In the secondary operation when the two ends of the injured duct can be identified and freed and the gap between the ends is not so large as to preclude their apposition the ends may be sutured with or without inserting an inlying rubber tube. Were it possible to have a decalcified bone tube of the proper size this might be more ideal. When the distal end of the duct cannot be identified, and there is therefore no chance of opposing the two ends, one of the following procedures, depending upon the extent of the injury (as I will show in the stereopticons) is the method of choice.

The length of the time between the introduction of the catheter and its passage varies in different cases from as early as four weeks to several months. Occasionally the catheter becomes blocked, but usually this is corrected by the bile flowing around the catheter. Personally I have never had to remove the catheter, yet I can see this might have to be done. I have used the T-tube in innumerable cases of gallstone disease and have rarely had any trouble in the shape of blocking of the intra-ductal part of the tube. Here of course we have the advantage of being able to flush the tube. As I have already reported on previous occasions, I had one patient who wore a T-tube for four years without causing any trouble.

The methods of reconstruction of the duct practiced in the past are obsolete. The chief among these consists of re-building the duct over an indwelling straight rubber tube, making use of the omentum for reinforcement. Unfortunately when the common duct has been reconstructed in this manner and covered by omental grafts or by means of a flap of gastric or intestinal wall, the patients as a rule do not remain well, and sooner or later develop a stricture with recurrence of jaundice calling for further operation. After these operations drainage is necessary, using rubber dam or rubber tubing, which should be removed not later than the second or third day.

CONCLUSIONS

In conclusion I would add that the operative treatment of jaundice of course depends upon its cause. It may consist of gall bladder drainage, either externally or through the duodenum; removal of the gall bladder; drainage of the common duct; anastomosis of the common duct to the duodenum or removal of the spleen.

Cholecysto-gastrostomy I never perform except when the duodenum cannot be mobilized. I know it is a favorite operation, but I believe cholecysto-duodenostomy is more in keeping with nature's manner of disposing of the bile by emptying it into the duodenum.

From what I have said (assuming it is true) pathology of the living does not lie. The medical man can take home with him this warning: In jaundice the surgeon can never be called too early, but he can be called too late.

Advances in Surgery Through Physicochemic Studies of the Blood*

By WILLIAM J. MAYO, M.D.,
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Knowledge is what we learn from others; wisdom is what we know ourselves. It is the mentality of the surgeon, rather than his technical ability, which is of the greatest importance. The good surgeon is not necessarily a good operator. Knowing when not to operate is as important as knowing when or how to operate.

We say that a certain surgeon has good surgical judgment, meaning that he more or less correctly

estimates the vital processes of the patient in relation to his resistance, and visualizes the future course of his illness with a view to initiating such changes as will reduce the risk of a necessary surgical operation, and enhance the prospects of cure. Formerly, with the aid of a few instruments and a small number of chemical tests, the experienced surgeon arrived at a fairly accurate diagnosis and estimated surgical risks in the more advanced stages of disease. Today, the surgeon has at his disposal, through the aid of the internist and the laboratory worker using scientific

*Read before the Inter-State Post Graduate Assembly of America, Milwaukee, Wis., October 30, 1924.

methods, a vast amount of correct information in the early, as well as in the late, stages of disease. Formerly, estimation of the competency of the kidneys was made by a few simple examinations of the urine, and of the function of the liver by observations as to jaundice. At present, through biophysics and biochemistry, accurate estimations of renal and hepatic functions can be made.

The early masters of clinical medicine, however, did a great work. One must pay homage to men like Richard Bright and Thomas Addison. Bright, in 1828, with a tablespoon, a candle, and a few simple reagents, gave a graphic picture of acute nephritis with its characteristic edema, occurring, for instance, as a sequela of scarlet fever, and ten years later gave a classical description of the cardiorenal manifestations of the contracted granular kidney. Addison, in 1849, described the disease of the suprarenals, which has been given his name, and ascribed the accompanying circulatory asthenia and bronzed skin to failure of the suprarenals to function. In 1885, in a few short pages, he described the syndrome of pernicious anemia with a lucidity which has never been excelled. Bright and Addison were masters in the early days, but they understood disease only in advanced and terminal conditions. Today, masters are working with accurate scientific methods, which enable them to understand and treat disease in the early, curable stages. As Rowntree says, the old adage, "Methods are not superior to masters," in the light of the knowledge of the present day, should be paraphrased to "Masters cannot ignore methods."

NO LINE OF DEMARCATION

Sir William Bayliss said that there was no line of demarcation between physics and chemistry. In other words, it is only under certain physical conditions that those alterations in the atomic constitution of molecular bodies, which we speak of as biochemistry, take place. In the days of the old masters, only microscopes of very inferior power were available. With the high-powered microscopes of today, one can see particles as minute as $1/10$ micron or $1/250,000$ inch in diameter. This advance in microscopy has made possible a fine analysis of the cellular elements of the blood. It has definitely fixed the red blood cell, derived from the bone marrow, as the oxygen carrier through its hemoglobin content. If the body is deprived of oxygen, death occurs in from

seven to ten minutes. Since 47 per cent of the earth, air, and water, is composed of oxygen, it is surprising that there is no storage facility in the body, either for oxygen or for substances which, under stress, would produce it. Until recently it was believed that the red cells were completely renewed every seven days, but it is now known, through the work of Ashby, of the Mayo Foundation, that these cells may live for many weeks. The red cells function, but have no nucleus and, therefore, have no power of growth. Blood transfusion clearly demonstrates the value of the introduction of oxygen carriers as a temporary aid to the rehabilitation of an anemic patient.

The white cells, which are nucleated, are derived from the reticulo-endothelial system, and have been shown to be directly connected with defense and repair. Quantitative and qualitative methods of study, based on cell morphology, give extraordinary knowledge of the power of defense of the white cell in the infections, and the decision to operate in an acute condition may finally rest on a rising white cell count. Without the white cell, there would be no repair of injuries. On the other hand, the diagnosis of leukemia, in the acute form, may depend on the changed morphology of the white cells, instead of on a high leukocyte count, as in the chronic forms.

The relation of the blood platelets, which are derived from the megakaryocytes of the bone marrow, to blood clotting and the purpuras, has become evident, as well as the agency of the spleen in the prolonged destruction of blood platelets, which may cause a drop from a normal count of from 225,000 to 300,000 or more, to 40,000 or less, causing chronic purpura in which splenectomy has given striking curative results.

THE SPLEEN—A FILTER

We begin to look on the spleen in a new light, as a coarse filter of the cellular elements of the blood which have outlived their usefulness, and as a limited source of white cells. The spleen is a destroyer of worn-out red cells, and if it is enlarged, it may, by an unnecessary destructive activity, bring about anemia. In cases of pernicious anemia, the spleen perhaps functions normally as an executioner of red cells of reduced value, which, however, are capable of maintaining life, and are the best the bone-marrow can produce.

Krogh has shown that the walls of the vascular

capillaries contain contractile cells, derived from the nonstriated muscle, which are to a large extent self-controlled. Under the circulatory pressure, the endothelial cells of the capillaries permit oxygen and molecular substances, such as the crystalloids and amino-acids, to pass by filtration, osmosis, diffusion, and other forces through the stomas in the wall of the vessel, to serve vital purposes: nutrition, energy, and heat. When certain toxic poisons, for example, histamin, paralyze the non-striated muscle fibers, causing the stomas in the wall of the capillary to open more widely, larger bodies, such as the colloids of the blood plasma, pass from the capillaries into the tissues, causing the state known as shock.

We may, therefore, regard the vascular system as a means of transporting cellular elements in a liquid medium, which we call the blood plasma. Until recently, our knowledge ended there, but today, through physicochemic studies, we are gaining an enormous knowledge of this problem. We see the blood plasma carrying nutrition to all parts of the body, effete substances which are to be eliminated to the excretories, and chemical substances, spoken of as internal secretions, which coördinate the fundamental vegetative functions. These substances are too minute to be seen with a microscope. The colloid field includes particles from $1/10$ micron or $1/250,000$ inch in diameter to approximately $1/1,000$ micron or $1/25,000,000$ inch in diameter. Knowledge of the colloids comes through the fact that the colloid particles are larger than a ray of light, and that with the ultramicroscope they can be seen to reflect or diffract the ray of light. The ultramicroscope determines the presence of colloid bodies, but gives no idea of their size, shape, color, or other significant details. Particles less than $1/1,000$ micron in diameter lie in the molecular and atomic field, in which chemical changes take place.

THE ATOM

According to Bohr, the atom is composed of a positive nucleus, or proton, surrounded by a negative electron or electrons. The simplest atom is that of hydrogen, composed of one proton and one electron, the latter being in rapid motion around the proton. Henry Moseley, a talented young Englishman who was killed in the Gallipoli campaign at the early age of twenty-eight, analyzed the atom by the refraction of the X-ray, an electromagnetic vibration of only $1/100,000,000$ inch in length,

smaller than the atom. He demonstrated that there are ninety-two possible elements between hydrogen, the lightest, and uranium, the heaviest, and that between each two elements in the progression in atomic weight, there is the weight of one atom of hydrogen; that is, an atom of oxygen has sixteen protons and sixteen electrons, an atom of radium eighty-eight protons and eighty-eight electrons, and an atom of uranium, ninety-two of each. Gold has seventy-nine electrons, and mercury eighty. Miethe has succeeded in removing one electron from mercury, thus obtaining gold. As a result of Moseley's work, Rutherford Thomson, and others have been able to fill in all but four of the elements lying between hydrogen and uranium. Many elements are not stable, or contain more than the necessary number of protons or electrons, and these superfluous, easily loosened, or free, electrical units are called ions, and are responsible for the atomic changes which we speak of as chemistry.

It is in the atomic and molecular field that oxidation takes place and the constitution of the molecule is altered. Crystalloids, of which glucose is a good example, lie in the molecular field, as do the amino-acids, which are the final results of protein metabolism. We now know that these ultimate products are formed in the liver, for, as Mann has shown by animal experimentation, if the liver is removed, sugar and urea in great part disappear from the blood.

It may seem that this discussion is ultrascientific and impractical, but on the contrary, it is most practical. Today, precise examinations of the blood for reactions which concern the colloids and molecular and atomic substances, have been raised to the dignity of sound methods of securing information of vital phenomena.

PRACTICAL APPLICATION

Let us take as an example, examinations of the blood in relation to the kidney. The function of the kidney may be briefly defined as the filtration of noncolloid constituents of the blood plasma through the capsule, and the resorption of threshold bodies in solution through the tubule cells. The kidney is, therefore, chiefly a filter whose function is to eliminate certain metabolites, such as urea, chlorids, and creatinin, from the blood. Urea is listed by Cushny as a nonthreshold body; it is one of the smallest of the molecules, and is not hydrated; that is, it does not change in size

by absorbing water. We know that the urea molecule must be roughly about the size of the molecule of the dye, phenolsulphonephthalein, which Rowntree has shown by intravenous injections would be eliminated from the blood through the kidneys about as readily as urea would be eliminated. The Rowntree and Geraghty phenolsulphonephthalein test is an accurate guide to the functional capacity of the kidney to eliminate urea. Retention of chlorids in the body, through disturbance of renal function, results in the edemas. Creatinin is another waste material, derived from tissue catabolism excreted by the kidneys. Estimation of these substances in the blood affords the most reliable prognostic index to renal function.

Finally, the kidney eliminates excess water in order to maintain a proper physical state of fluidity, that the molecular constituents of the blood plasma, glucose, amino-acids, and so forth, may be maintained in the condition necessary to permit chemical exchanges. Eighty per cent of the body is composed of water. Colloid bodies in so-called solution can be seen only by refraction with the ultramicroscope and are held in suspension in fluids, while molecular and atomic particles form true solutions which, according to Arrhenius, may undergo electrolytic dissociation into positive and negative parts which are ionic.

Through studies of the blood has come the remarkable improvement in the results of operations on patients with reduced renal function. Such improvement could not be estimated by the old method of examining the urine. When the blood urea rises above 125, operation becomes most serious, unless it concerns obstruction to elimination by the kidneys. Even when the blood urea is above 300, the well prepared patient may recover from operation, provided the urinary obstruction can be relieved, as in certain conditions the prostate. When the blood creatinin rises above 5, a serious barrier to excretion is present, and the patient is in danger; when it rises above 10, the patient will probably die unless the barrier is removed. The percentage rise and fall of the blood chlorids must be watched with care, but is not so striking as in the case of urea. In chloride retention, edema may occur. In high intestinal obstruction, the chlorids of the blood may fall markedly, and this is frequently associated with an alkalosis and its clinical manifestations.

If the renal function, in relation to elimination of urea, chlorids, and creatinin, is so reduced that the urine cannot concentrate normally, a large intake of water is necessary. That is, if the urine normally is excreted in concentration of 1,020, and the kidneys are able to concentrate only to 0,005, the patient must take extra water to insure proper elimination through the kidneys. If the renal incompetency is due to the stage of cardiac insufficiency, the patient may not bear the amount of water necessary for elimination, and a secondary edema may develop. Measures must be taken to obviate this cardiorenal complication. Under intelligent management, the condition of a patient with most serious toxemia from renal insufficiency may be improved, and a successful operation performed.

Note what may be done for the patient with the information derived from studies of the blood. Rehabilitation of the blood in cases of renal incompetency consists in giving fluid in the form of sodium chloride and glucose solution rectally, subcutaneously, or, if the condition is acute, intravenously. Glucose maintains heat and energy in the body and reduces the metabolites in the blood by preventing destruction of tissue. If the blood chlorids are high, water without sodium chlorid is indicated, but as a rule they are low, and large quantities of hypertonic sodium chloride solution are given intravenously.

In high intestinal obstruction, the chlorids of the blood go down while the urea and creatinin go up. The problem is to restore the body fluids with water, which also aids elimination of urea. To restore the chlorids, chlorid of sodium is given, not bicarbonate of soda, in the water, since alkalosis exists. Glucose is added to maintain oxidation in the body for heat and energy, and to check destruction of body tissue. This treatment will reduce the toxemia. High jejunostomy in cases of definite obstruction may become necessary, thus preventing toxic intestinal contents, through antiperistalsis, from reaching the upper jejunum and duodenum, where absorption takes place, causing profuse vomiting and dehydration. Many lives may thus be saved, and curative operations for the relief of the primary condition made possible at a later date, as shown by Balfour and McVicar.

Owing to precise methods of estimating blood sugar, we are today able to operate on the diabetic patient properly rehabilitated, for general surgical

conditions, with a mortality not exceeding that of the average, as shown by Wilder. The surgical mortality in cases of jaundice in which patients have been properly prepared, has been reduced from above 10 per cent to less than 4 per cent, as shown by Walters. Last, but by no means least, by the use of the Rowntree-Rosenthal test with the intravenous injection of the dye, tetrasulphophthalein, we are able accurately to gauge the functional capacity of the liver, thereby avoiding many deaths from toxemia due to failure of hepatic function. Such deaths previously were

charged to the lungs, the kidneys, the brain, and the heart, when, as a matter of fact, these organs were not the cause of death, but merely the executioners.

I have been privileged to see my colleagues, the internists, and laboratory workers, evolve scientific methods for examining the blood, and apply them in cases in which formerly operation, unaided, would have meant death, a rehabilitation resulting that indicates a most striking advance in modern surgery.

Non-Malignant Obstruction of the Pylorus in the Aged*

By J. A. WITHERSPOON, M.D.,
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Nashville, Tenn.

The symptoms of obstruction of pylorus in the aged following ulcer of the duodenum.

In our experience duodenal ulcer is more than four times more common than gastric, and as cancer rarely ever follows duodenal ulcer (3 in 1,000 cases) it is fair to state that the mass, if found, is inflammatory or due to cicatricies in or near the pylorus.

SYMPTOMS

1st. A history of alternating indigestion always exaggerated in early Spring or Fall.

2nd. Pain of either a burning or aching character, which occurs three or four hours after meals and is relieved by alkalies or by taking food.

3rd. When the obstruction becomes greater, vomiting of large amounts of mucous, with increased hydrochloric acid, will be the result.

4th. Marked secondary anemia, increasing weakness, loss of weight, and a dilated stomach frequently associated with gastroptosis, is the rule.

5th. Occasionally a mass in emaciated cases can be felt; this adds to the difficulty of excluding cancer.

The absence of cachexia, the constant presence of hydrochloric acid, the absence of lactic acid and blood in the stomach contents, is of great value.

The 15 minute study of the gastric content is to be advised, and while in carcinoma hydrochloric acid is present occasionally, it grows less, and the Oppler Boas bacillus, if found, is valuable. In some cases the differentiation is very difficult, and

only close and thorough working out will determine the condition.

It is fair to state that, in a few cases, the surgeon may be in doubt after opening the abdomen.

In reporting the four cases we do so because we feel that many lives have been lost on account of hesitancy to advise surgery, or rejected because of possible malignancy.

In our work we have seen many cases with symptoms of obstruction at the pylorus, many due to pylorospasm of nervous origin, controlled by alkalies or sedatives, like atropin and bromide, others due to extra gastric causes, often to adhesions from gall bladder, or chronic appendicitis, etc. These cases are at times very difficult to diagnose and require careful and thorough study. This is especially true during the menopause in women.

In the past two years we have had four patients past 60 years of age whose condition demanded operation because of obstruction at the pylorus, due to duodenal ulcer.

RELATIONSHIP TO ULCERS

Pyloric obstruction is the most common complication of duodenal ulcer, but pyloric obstruction in a patient of this age is usually looked on as due to cancer, for duodenal ulcer is regarded as a disease of younger people.

Duodenal ulcers occur with more than four times the frequency of gastric ulcers. Whether we accept or reject the theory that cancer of the stomach results from ulcer, it is well known that duodenal ulcers do not become malignant for

*Read before the Inter-State Post Graduate Assembly of America, Milwaukee, Wis., Oct. 27-31, 1924.

cancer of the duodenum is very rare; 0.03 per cent in hospital autopsies.

If the physical examination of the patient, the stomach contents or the X-ray findings, and especially the history, leads us to think that obstruction is due to duodenal ulcer, the outlook may not be so bad.

The histories of these four cases are of great interest to us for they tell the story of benign pyloric stenosis. Two of these cases were uncomplicated, one was complicated by gall bladder disease and gallstones, and one by sub-acute appendicitis. None had tetany.

Chronic ulcer causing obstruction is not featured by great local tenderness and pain. When these symptoms are present there is some inflammatory condition about the pylorus, and the pylorospasm may be relieved by alkalies and antispasmodic medication, and the patient encouraged to feel he is better.

Height of acidity is not a parallel of pain and the research of Pawlow, Rehfuess, Corlson, Hamburger and Hardt show that with hyperperistalsis, pain occurs even when the acid is normal or low.

Even the giving of acid in a case of known open ulcer does not induce the typical pain.

Alkalinizing the stomach lessens the spasm and shortens the emptying time.

Obstruction at the outlet is followed by hyperperistalsis with hypertrophy of the whole active stomach wall.

By fluoroscope peristaltic waves may be seen twice as deep as normal and these continue until the stomach wears out or loses its tone.

Hypertrophy is associated according to Sippy, Rehfuess and others by hypersecretion of peptic juices and of mucous, and the stomach may contain 50 to 500 c.c. of highly acid liquid.

Water brash, spitting of hot water, burning, splashing, is the common complaint.

At this stage the ulcer rarely bleeds. Munyon says with hemorrhage think of ulcer last.

Localized area of tenderness between 10th rib and naval is very constant, it may come and go with the inflammation of attacks.

Left to right peristaltic waves should be looked for. The patient has a long history of dyspepsia. His exacerbations come in Spring and Fall. November is mentioned in three of these histories.

The patient does not usually attribute his attacks to certain foods but says his stomach hurts

worse when empty and food relieves him, but he tries to diet and eliminates one food after another until he is down to skimmed milk with lime water.

He is constipated, and recognizing the constant association of pylorospasm with constipation, this brings up our second problem in differential diagnoses.

SECOND PROBLEM

First, we must eliminate cancer in obstruction at the stomach outlet in old people.

Then we must think of the extra gastric diseases that may cause pylorospasm before we can diagnose duodenal ulcer. Constipation, appendicitis, gall bladder disease, cardio-vascular disease and neurosis may cause some of these symptoms, but with a good history, a careful physical examination, and the aid of the laboratory and X-ray, we may make a diagnosis and advise the necessary treatment.

All of the patients reported gave histories of long standing, compatible with duodenal ulcer. It was with difficulty, however, that this part of the story could be gotten, as the patients' more recent suffering overshadowed the early stages of the disease.

X-ray examination is of the greatest value, and if a filling defect on the stomach side can be excluded, helps to establish the diagnosis. It, together with a complete history, are the most valuable guides to follow in excluding malignancy.

However, even with this help there will remain cases that can only be diagnosed by exploration, and there are some cases where even at exploration the surgeon is still in doubt.

Case No. 2 is such a case. The fact, however, that she has regained her weight and is well at the end of two years, makes it fairly sure that the condition was benign.

Examination of the stomach contents has some value, but the main dependence must be placed in the history, and the X-ray examination.

Patients of this age, partially starved, are poor surgical risks, and some time and attention should be devoted to improving their general condition. A lack of fluids is the outstanding handicap, and this should be overcome by pushing fluids by mouth, giving small quantities of liquids at frequent intervals, the use of rectal drips, hypodermoclysis and blood transfusion when indicated.

Gastric lavage once daily for a few days before operation serves to clear the stomach of food

debris and also accustoms the patient to its use if it should be necessary after operation.

The use of sterile foods for 36 hours before operation will render the stomach sterile and lessen the chance of contaminating the field.

Elderly people are usually good subjects for local anesthesia, and a good part of the operation can be done under this, supplemented if necessary, by light gas-oxygen.

Where the stomach is large and atonic it is perhaps advisable to make the gastro-enterostomy opening a little large, so that if the stomach regains its normal tone and size, there will be no shrinkage of the stoma.

Gastric lavage is indicated at the end of 24 hours if there is vomiting or dilatation of the stomach, and in this type of case will be frequently necessary.

Gastric tetany, which sometimes occurs in patients with dilated stomachs, did not occur in this small series.

Careful study of elderly people with pyloric obstruction will show that in the majority of cases the obstruction is due to carcinoma, but there is a group of cases in which obstruction is due to the end results of duodenal ulcer, and in these, gastro-enterostomy offers a rapid and permanent relief.

Case No. 1.

G. E. Matlock, Male, Married. Aged 60. Occupation, traveling salesman.

Admitted to the Hospital November, 1923, complaining of gastric distress and vomiting. Patient had stomach trouble for many years. In early adult life he would have a gnawing pain in the stomach which he could relieve by eating a dry biscuit.

In 1911 he had recurrent attacks of this trouble. He said he was jaundiced and was said to have had billious fever.

In 1917 present distress began with severe vomiting, the first evidence of vomiting, and he was unable to take food for four days. He has no pain but feels as though the food did not pass out of his stomach, and since 1917 he says the stomach fills with food three or four days and he becomes markedly distended and vomits for relief. He consulted Dr. J. A. Witherspoon in November, 1918, complaining of these symptoms and pain in the right side under the ribs. He was given Epsom salts and soda in small doses and an anti-spasmodic and was relieved of these occasional attacks until February, 1922.

He returns saying that for two or three months there has been less vomiting but a splashing in the bowels with no pain but soreness in the pit of the stomach.

Since February of this year, 1923, the condition has been progressively worse, vomiting more frequent and

loss of 60 pounds in weight in the past 6 months. There is no blood in the stools. He does not allow constipation and there is no diarrhoea.

He had typhoid in 1897, flux in 1900 and pneumonia in 1907.

Physical examination now showed a large man who had been fat but who had lost much weight.

The abdomen was soft, there were no hard tumors, the stomach could be seen first distended then rigid and showing active peristalsis slowly from left to right. There was no mass to be felt at the pylorus. The stomach contained fluid and would splash. Stomach contents showed no occult blood. Total acidity 90. Free H. C. L. 40. Lactic acid negative.

X-ray showed a large hypotonic stomach, duodenal deformity, large 6 and 20 hour retention.

At operation, there was cicatricial scarring of the duodenum, with a high degree of obstruction. The appendix and gall bladder were normal.

A posterior gastro-enterostomy was done and the patient left the Hospital in 2 weeks.

He is relieved of his symptoms and has regained a large amount of his lost weight.

Three Slides.

Case No. 2.

Mrs. D. H. W. Married. Housewife. Aged 60. Mother of three grown children. Entered the Hospital June, 1922, complaining of burning in the stomach, vomiting for 6 weeks and great loss of weight.

There was no complaint of pain in the stomach.

She was first examined in 1918 at which time she complained of nervousness which she said had been present since menopause 10 years before. She also had attacks of loss of appetite and vomiting and at that time was taking only skimmed milk containing lime water. All other foods were vomited some hours later.

She says three years before she had a vomiting attack that lasted all night, and thirty years ago she had so-called neuralgia of the stomach.

Present history. Vomiting and burning in the stomach all the time and only relieved by opiate. She says her stomach feels as if it had a coal of fire in it all the time. She has retained no food in 6 weeks, has lost a great deal of weight, and has a large bed sore.

Her former weight was 240 pounds. Physical examination. A very large woman, aged 60, great flacid splashing abdomen with visible peristalsis from left to right. A mass in the upper right abdomen and localized tenderness of pressure.

Her stomach contents showed a large amount of peptic juice-food particles and high total and free hydrochloric acid with no blood. X-ray shows enormous stomach with a few peristaltic waves and great dilatation of the first portion of the duodenum.

There was no filling defect on the stomach, there was 6 and 24 hour retention of great size.

Diagnosis, obstruction of pylorus due to duodenal ulcer.

She was given a transfusion of 500 c.c. citrated blood.

Operation showed a mass at the pylorus adherent to the under surface of the liver and gall bladder, pro-

ducing a high degree of obstruction. It was impossible to say whether this was cancer or ulcer, but resection was considered inadvisable under the circumstances, and a posterior gastro-enterostomy was done. Her convalescence was prolonged somewhat on account of her bed sore but she left the Hospital after a month and at present is in good health.

Case No. 3.

Mr. T. B. T. Aged 68. Married. Commissory Merchant. Entered Hospital March 3rd, 1924, complaining of (1) pain in upper abdomen before meals, (2) gas in the stomach, and (3) tenderness in upper abdomen.

He had consulted us in July, 1923, having pain near cardiac end of the stomach. He had weakness, and loss of 40 pounds weight in 2 years.

The pain in the region of the heart was exaggerated by exercise and relieved by rest.

He had vertigo. His blood pressure was 130/90. He was always constipated. He was thought to have angina. Nine months later he returned and gave this history.

His first trouble started some 6 years ago. He began having a dull pain in the pit of his stomach 3 or 4 hours following meals.

He was always relieved by the taking of food. He did not consult a physician for some time. Since onset he has been going to Red Springs during the Summer, which always relieved him.

He had some rheumatism and all teeth were extracted two years ago. Since the beginning of this trouble he has been steadily getting worse. He has a great deal of gas on the stomach. The pain seems to be more regular than ever before and digestion is poor.

He had flu last January and sore throat and coughed some since.

X-ray showed hypertonic stomach, some dilatation, duodenal deformity, 6 hour retention and evidence of stasis at the ileocecal valve.

Duodenal ulcer and pyloric obstruction was diagnosed.

Operation. Notes, March, 1924. Stomach normal. Ulcer first portion of duodenum could be felt and seen. Gall bladder negative as was also the common duct. Gastro-enterostomy was done. Appendectomy—appendix was difficult to deliver on account of dense adhesions.

Recovery.

Comment. Old chronic obstructive ulcers do not cause so much pain. This old gentleman had appendicitis also and this confused the picture.

Though his obstruction had been going on some years it was not so complete as to cause great dilatation of his stomach or stasis.

Case No. 4.

Mr. G. H. B. Aged 64. Married. Sheriff. Was first examined March, 1924, complaining of burning in pit of stomach, spitting up hot water. Worse about 9 or 10 o'clock at night with great deal of gas. Taking food relieves him.

His present attack started in November, 1923, when he says he was poisoned by eating fish, and was in bed for a month. During the previous Summer he had

canvassed his county eating different foods at different places every day and vomiting for relief every night.

Three years before this he was operated on for left inguinal hernia, which was supposed to have caused his indigestion, and he was relieved for a while, but in a few weeks a large hernia occurred on the other side and the indigestion returned.

Hospital History. For past five months patient has suffered with almost daily vomiting. This occurs just after midnight. The stomach will seem to be full, burning with gas, and heavy. This trouble comes on rather suddenly and patient thought it was due to dietary indiscretion, but when it persisted for over a week he became concerned. He has taken soda water to relieve himself and it seemed to help, but nothing gave any permanent benefit. For five months he vomits regularly, skipping only two or three days. He sometimes sticks his finger down his throat to provoke vomiting.

X-ray showed large dilated stomach, increased peristaltic waves, stomach pulled to the right; no duodenal cap was seen.

There is an indentation on the right side of the pylorus which we take to be pressure from the gall bladder. No gall stones are shown on the plate. There is a large six hour retention with typical blunting of the pylorus. This is shown well in one of the films.

Operation. Notes April 1st, 1924. Right rectus incision, showing scar tissue in first portion of the duodenum producing a high degree of obstruction. Gastro-enterostomy. Gall bladder was very large and contained large stones lodged in the cystic duct, gall bladder tense and apparently contained fluid.

Gall bladder aspirated and purulent material obtained, large stones released and several smaller ones, and tube introduced into gall bladder.

Patient is recovering.

PROGRAM COMMITTEE CALLS FOR PAPERS

The following letter has been sent to the secretary of each county society in an effort to obtain proper program material at an early date:

Dear Mr. Secretary:

In the February number of the Journal of the Wisconsin State Medical Society there appeared an editorial which indicated the type of the meeting to be held in the fall.

You are requested to read that editorial and this notice at the next meeting of your society and to invite questions, criticisms and suggestions, which should be transmitted to the undersigned for their information.

The program committee has but one object, to try to arrange this year's meeting so that all sessions may be attended by both general practitioners or specialists with assurance of pleasure and of profit.

A large number of subjects is needed from which to make such selections as will provide desirable correlation and balance in the program. We urge every member who has something to contribute to volunteer that contribution at once. Likewise we urge every

(Continued on page 559)

Postoperative Complications Following Appendectomy—Report of Cases

By VICTOR F. MARSHALL, B.S., M.D., F.A.C.S., and GUY W. CARLSON, B.S., M.D.,
Appleton

The symptoms of acute or chronic appendicitis when marked are so typical that a diagnosis is usually easy to make. There are, however, those cases in which no amount of clinical acumen or painstaking effort can correctly point to a disease of the appendix. The presence of sudden acute pain in the abdomen, localization of it later in the right iliac region, attended with muscular rigidity is a call for action be the disease what it may. In all probability we are justified in disregarding the possibility of diagnostic error and its possible consequences when the time interval may mean a life. The call for the immediate relief of some impending complications following operations for appendicitis is often seen. Here again the clinician cannot procrastinate for the time interval may be the main desideratum. When such cases present themselves we are bound by duty to make a correct diagnosis; to alleviate the condition expeditiously in the safest way possible whether by operative interference, medication or otherwise. Here again the judgment of the clinician is very important. The symptoms are often obscure so that the existing complication may tax one to the utmost to arrive at a correct diagnosis.

The admirable paper on "Chills in Appendicitis," by William Thalheimer,¹ Milwaukee, very closely simulates one of the cases. This case is presented because of its seeming infrequency as a complication.

CASE I

HISTORY

A farmer, age 33, entered St. Elizabeth Hospital, March 19, 1924, complaining of pain and tenderness in the right lower quadrant. One month before admission he had his first attack. During the past winter he had frequent attacks of sore throat and tonsillitis. In August, 1923, he met with an accident in which he sustained a compound comminuted frontal skull fracture necessitating operative intervention with apparent recovery. He had always been well until the past winter and the onset of pain one month before

admission. At first the abdominal pain was diffuse and later tended to localize over the ileocecal region. This area remained sore until the recent attack when there was present an acute exacerbation of pain and tenderness. He had been having nausea and vomiting and complained of headaches of the fronto-occipito type. The temperature was 100.4 degrees F., pulse 78. The history was otherwise negative.

PHYSICAL EXAMINATION

The skin over the body was free from any inflammatory areas, ulcers, scars or cutaneous hemorrhages. There was present a right and left cervical adenitis. The face was of normal contour, not distorted upon either side, no edema or swelling. The neck and chest were negative except for the heart findings of a roughening of the first sound over the mitral area and an accentuation of the second pulmonic tone. There was marked tenderness to pressure over the right lower quadrant with a spasm of the right rectus muscle. The liver and spleen were not palpable. Rectal examination revealed a marked tenderness over the region of the appendix. Blood pressure, systolic 114, diastolic 64. The urine examination was negative. Blood examination revealed: Hemoglobin 85%; white blood count 13,700; red blood count 4,180,000. Differential count: polymorphonuclears 75%; small lymphocytes 12%; large lymphocytes 11%; eosinophiles 1%; basophiles 1%.

OPERATION

Upon March 20, 1924, a gridiron incision was made and the appendix was found subcecal. It was gently freed. The meso-appendix was much reddened and edematous. It was carefully incised close to the appendix. Bleeding was slight from the incised surface. After carefully isolating the appendix it was ligated, cut and then removed. The stump after being carbolized was inverted and closed over by a purse-string suture. The abdomen was then closed in layers as usual.

POSTOPERATIVE REPORT

The progress was uneventful until the third day following the operation when he began running an intermittent temperature, the temperature being normal in the morning and in the

¹"Chills Occurring Early in Appendicitis Before Operation and Their Indication of an Operable Stage of Pylephlebitis," William Thalheimer, M.D., Archives of Surgery, March, 1924.

afternoon rising to 99.4 and to 99.8 F. On the sixth day a serous discharge from the wound was present. He began complaining of pain over the entire abdomen and especially over the right upper and lower quadrants. He felt chilly and perspired freely. The following morning, March 26th, he developed a severe chill which lasted about thirty minutes; the temperature rising to 104.4 F., pulse 120, followed by a drenching perspiration after which the temperature returned to normal. No jaundice was present at any time. He was taken to the operating room and the abdomen was freely opened by a right rectus incision and a purulent fluid exuded. The cecum and meso-appendix were carefully drawn up and found to be deeply injected and edematous. The vessels were tortuous and in places nodular. This condition extended through and into the superior mesenteric vein. The inflammation involved the cecum, meso-appendix and the surrounding peritoneum. Tube drainage was provided for and the abdomen closed in layers. Following the operation the patient showed no improvement and expired three days later. No necropsy obtained.

POSTOPERATIVE CHILLS

Trauma following the operation may have been a factor in the development of sepsis and chills. It is probable that this trauma merely aided in the dissemination of the thrombus formation which was already present in the vessels and which one could easily palpate during the operative procedures. The condition may have existed to a certain degree at the time of the first operation. It is common to have a phlebitis of the femoral vessels after an appendectomy but a pylephlebitis may exist in a larger percentage of cases, if it were only recognized.

TREATMENT

At the time of the second operation it was evident that a pylephlebitis existed. It appears that surgical intervention would have been folly due to the extensiveness of the condition. It is true that early recognition of such a case is all important but the treatment as stated by some authors is still far from being satisfactory. The removal of the infected appendix, ligation of the meso-appendix a distance away from the appendix and tube drainage is a conservative treatment. Trauma to already diseased vessels and peritoneal structures, high ligation of the vessels, may only

aid in the dissemination of the thrombi and is to be done only by those well versed in this form of complication. Early diagnosis of the disease, prompt surgical intervention with more radical procedure of ligation and evacuation of the thrombi seems logical and sane, but those cases seen later are to be treated conservatively.

BLOOD SUPPLY TO THE APPENDIX AND MESENTERIOLUM

The blood supply to the right iliac fossa, divides into a superior and inferior branch. The inferior unites with the superior mesenteric artery, the superior branch unites with the right colic artery. The inferior branch of ileo colic appears at the ileo colic junction at its upper border and gives off colic, anterior and posterior cecal, appendicular and ileal branches.

VENOUS SUPPLY

The return blood begins in the right iliac fossa by the union of veins which drain the appendix, cecum and terminal portion of ileum ascending between layers of the mesentery on the right of the superior mesenteric artery; as superior mesenteric vein, thence inferior vena cava to form portal vein.

COMMENT

We feel that a necropsy would have been valuable. A blood culture taken in the interval between the chills and the rise of temperature with bacteriological examination would have been of great value. The second operation, however, gave us the opportunity to verify our suspicions of the conditions present. We are of the opinion that some cases with chills will not be jaundiced.

CONCLUSIONS

We are heartily in accord with William Thalhimer that all cases of acute appendicitis with inflammation of the appendix and the meso-appendix are cases of pylephlebitis and should be carefully inspected at the time of operation. An inflamed, edematous meso-appendix should be most carefully inspected. It seems reasonable that chills may occur when the thrombotic process has extended beyond the appendix proper. The prognosis is usually fatal in the presence of pylephlebitis. Positive blood cultures should be obtained at the time of the chills or during the rise of temperature. Cases of pylephlebitis are common but are not often recognized.

CASE II

The second case is also a postoperative complication and is interesting especially from the view point of treatment.

HISTORY

A laborer, age 46, entered St. Elizabeth Hospital, March 12, 1924. He complained of severe pain and tenderness over the right iliac fossa. He had nausea, vomiting and a diarrhoea. The attack began three days before entrance and had been increasing in severity. The symptoms during this time were becoming more pronounced. He gave a history of many repeated attacks which lasted a short time and then subsided. The temperature was 99.6 F., pulse 80. The history was otherwise negative.

PHYSICAL EXAMINATION

The patient was a poorly nourished white male who appeared septic. He complained of intense pain over the right iliac region. The skin was everywhere smooth and free from any inflammatory areas, no ulcers, scars or cutaneous hemorrhages. The face presented no abnormalities. The eyes reacted to light and accommodation, pupils equal, conjunctiva not inflamed and the cornea clear. The neck and chest were negative; the heart and lungs showing no abnormalities. The abdomen was distended and tympanitic except over the right iliac fossa where a circumscribed mass could be definitely outlined. A palpable swelling conformed to the findings of dullness and was thought to be that of a localized abscess. The liver and spleen were not palpable. There was tenderness posteriorly below and over the right costovertebral angle. Rectal examination revealed marked tenderness in the region of the appendix. Urine examination was negative. Blood examination revealed: Hemoglobin 83%; white blood count, 9,800; red blood count, 4,200,-

000. Differential: polymorphonuclears 82%; lymphocytes 14%; large mononuclears 4%.

OPERATION MARCH 12, 1924

Upon opening the abdomen through a gridiron incision free pus exuded. The appendix was gangrenous, perforated and was plastered with a greenish plastic exudate. The appendix was lifted out and removed. Drainage was then provided for and the abdomen closed in layers.

POSTOPERATIVE REPORT

The temperature and pulse resumed normal on the third day. The patient seemed to progress very satisfactorily until the twelfth day following his operation when he complained of sudden diffuse pain over the lower abdomen. He had nausea, vomiting and passed considerable gas per rectum. There was pronounced distention of the abdomen and a painful swelling over the incision. The patient was showing early prostration and immediate operation was advised.

OPERATION AND TREATMENT

Through a right rectus incision the abdomen was reopened. Exploration revealed a kinking of the ileum about ten to twelve inches from the ileocecal junction. It was held to the posterior abdominal wall by short firm adhesions. The ileum attached was deeply injected and firmly adherent. There was present a denudation of the peritoneal and outer coats of about 1½ inches in diameter. A piece of subcutaneous fat tissue was removed from the abdominal wall and placed over the denuded area and securely held in position with fine catgut sutures.

COMMENT

The utilization of subcutaneous fat tissue in this manner seems to provide a safe method of preventing adhesions and incidentally obviating the necessity of more radical procedures. Uneventful recovery ensued.

Further Observations on the Use of Convalescent Serum in the Prophylaxis of Measles*

By GEORGE H. WEAVER, M.D., and T. T. CROOKS, M.D.

In a recent paper¹ the results of our work with convalescent serum as a protective against measles at the Durand Hospital were reported. It con-

(From Durand Hospital of the John McCormick Institute for Infectious Diseases, Chicago.)

*Read before the Inter-State Post Graduate Assembly of America, Milwaukee, Wis., Oct. 27-31, 1924.

cerned 57 susceptible children who were exposed to measles. Nine of these were not given serum; all developed typical measles. Forty-eight were given 5 to 10 c.c. of convalescent measles serum; 44 were protected and 4 developed measles. Of the 4 developing measles, 3 were given the serum 8 to 12 days after exposure; 1 was given the serum the day

of exposure and developed a typical form of measles 15 days later. There was only 1 failure in 45 children given serum within 4 to 5 days after exposure. In this paper the literature on the use of serum in measles was fairly thoroughly reviewed, so that only more recent articles will be mentioned here.

Zingher² in New York City has had some interesting results. Of 102 children receiving convalescent serum, 92 were protected. Of the 10 developing measles, 7 were given the injections on the eighth day of exposure and developed a modified form of measles with incubation periods of from 16 to 22 days.

Davis³ gave convalescent serum to 52 susceptible exposed persons with 50 protections. Of the 2 who developed measles, 1 had a typical case, and the other a mild atypical attack which would scarcely have been recognized unless one were watching for the appearance of the disease.

Adler⁴ reports the use of whole blood from convalescents or adults who have had measles for protecting young children. Of 18 children in his private practice given from 20 to 30 c.c. of whole blood from 4 to 8 days after exposure, 5 were completely protected, 12 had mild atypical measles and 1 had a typical attack. This is the first report seen on the use of the blood or serum in private practice. Adler says the method is so simple that any general practitioner may safely use it.

H. Cambessedes and P. Joannon⁵ report the successful use of convalescent serum in preventing measles in several of the hospitals and creches of Paris. During the winter of 1922-23 severe outbreaks of measles occurred in Paris; in one creche there were 36 cases and 17 deaths among 38 infants. By the prompt use of convalescent serum it was found that measles could be quickly stamped out in these institutions.

In our additional series, 100 susceptible exposed children were given convalescent measles serum. Of these 81 were entirely protected; 9 developed a mild atypical form of the disease, and 10 had typical measles.

In Table 1 are shown the results of the use of serum. One child was not given serum and developed typical measles in 14 days, while others exposed at the same time in the same institution and given serum one day after exposure were pro-

TABLE I.

Cases Given Serum	Age	Days between Exposure and Administration of Serum	Result		
			No Measles	Atypical Measles	Typical Measles
25	4 mos.—6 yrs.	1	23	2	.
10	4½ mos.—4¾ yrs.	2	10	.	.
12	18 mos.—4½ yrs.	3	10	.	2
12	6 mos.—10 yrs.	4	12	.	.
13	8 mos.—10 yrs.	5	11	1	1
10	15 mos.—9 yrs.	6	5	5	.
7	21 mos.—14 yrs.	7	6	1	.
5	2 mos.—4 yrs.	8	4	.	1
1	3 yrs.	12	..	.	1
4	18 mos.—3½ yrs.	14	..	.	4
1	13 mos.	16	..	.	1
100	2 mos.—14 yrs.	1-16	81	9	10

tected. Of the 10 children who developed typical measles following the use of serum, 7 were given the injections 5 days or more after exposure. The 3 who had an unmodified form of measles were reported as exposed 5 days previously.

Many of these cases are from the private practice of physicians in Chicago who often dated the exposure from the appearance of the rash in another child in the family. Measles is contagious during the catarrhal or pre-eruptive stage so that in some of these cases exposure is undoubtedly 3 to 4 days longer than reported.

Supposing that the reported exposures are correct, there is a failure to protect in only 3 of 72 injected with measles serum within the 5-day period. These children were given the same lot of serum as many of the others and in the same manner and amount. Why convalescent serum fails to protect against measles in some cases is unknown. Most investigators report from 2 to 4 per cent of failures even when the injections are given within the first 5 days of exposure.

The protection afforded after 5 days of exposure to measles by convalescent serum is more uncertain. Of 35 children given serum 5 to 8 days after exposure, 7 developed apparently unmodified measles, 7 developed a very mild form, while 26 were entirely protected. Of 6 children exposed to measles for 12 to 16 days before serum was given, there was apparently no protection or modification of the disease. There is thus considerable protection afforded even up to 8 days after exposure, but the best results are secured when the serum is given within 4 to 5 days after exposure.

The 9 atypical cases are an interesting group. These forms vary in intensity from a light attack in which the child may have some slight catarrhal symptoms, a transient rash of 1-2 days and a moderate elevation of temperature to 101-102° for a day or two to very light transient cases which would pass entirely unrecognized if one were not constantly on the watch for symptoms. If one could standardize the dose and time of administration accurately, it would perhaps be better in many cases to give the child just the amount of serum which would permit it to develop a mild abortive attack of measles with its actively immunizing effect rather than to protect it passively by a larger dose of serum and leave it susceptible to measles after a few weeks. In time such a dose of serum may be standardized.

The cases reported last year were largely in hospitals and in institutions where the length of exposure was usually limited by the isolation of the case of measles. This year the cases were largely in private practice where the time and intensity of exposure were usually greater than those in institutions. Yet the degree of protection is about the same in the two series.

One interesting group of cases this year occurred in a large summer camp for boys. A few days after the opening of the camp, a boy came down with measles. As an attest of the activity of this lad and the virulence of the infection, 12 additional cases developed 12 to 16 days later. While it was difficult to find out with certainty how many more boys were susceptible, 12 who had no history of previous measles were given measles convalescent serum 5-6 days after the second crop of measles appeared in an effort to prevent an extensive third crop from developing. No more cases developed in the camp. Supposing that the 12 secondary cases were as effective in spreading the virus as the original case, there should have been a general epidemic among the remaining susceptibles. By prompt isolation and the use of protective serum, the disease, which was beginning to assume epidemic proportions, was checked in the second generation.

The method of securing serum and preserving it has been described previously.¹ We have used a 5 c.c. dose in all cases without any attempt to graduate the amount to the length of exposure and the age of the patient.

An experience with one family would indicate

that a dose graduated as to age might be advisable. One child in a family of 6 children came down with measles. On the sixth day of exposure, the remaining 5 children ranging from 2 to 9 years were given 5 c.c. of serum. Twelve days later, the oldest, 9 years, developed a mild atypical form of measles with a moderate rash for 2 days, a temperature of 102 for one day but no noticeable catarrhal symptoms. She was with difficulty put to bed for the day. One day later a boy of 7 developed a milder rash, but would not remain in bed. The next day 2 more, aged 5 and 4 developed a very transient rash for one day with no elevation of temperature or other symptoms. The youngest, 2 years, showed no symptoms at all. These children were all given 5 c.c. of serum, but the protection afforded increased as the age decreased, i. e., from a mild attack of measles in the oldest through very transient atypical forms for the younger ones to complete protection for the youngest child of two years.

Degwitz⁶ has used a 2.5 c.c. dose of serum as a unit, increasing this amount with the age of the patient and length of exposure. Zingher has also varied the size of the dose with these two factors.

We have had no experience with the use of whole blood or serum obtained from persons who have had measles at rather remote times. Reports by several observers seem to indicate that such blood from adults who had measles in childhood possesses distinct protective power, but must be given in relatively large doses (30 to 40 c.c. of whole blood). The blood may be injected intramuscularly without or with the addition of sodium citrate to prevent clotting. When convalescents of sufficient age are not available, the blood from parents and older children who have had measles may be used to secure protection or at least to cause a modification in the severity of the attacks if they occur.

Our experience has been that most people are willing to give blood without financial remuneration. When the humanitarian side has been pointed out, we have had very few refusals to donate blood either for measles or scarlet fever. We have been getting blood from convalescent scarlet fever patients for several years.

From the reports of various investigators, it is fairly well established that serum or whole blood from persons recovering from measles contains sufficient antibodies to protect against measles

when given early. It is a safe procedure when donors are selected carefully. The main defect of the plan is the lack of available donors. This has been met by Adler⁴ in his private practice by using the blood of relatives. In New York City the Health Department has made serum available for the general practitioner. With closer cooperation between the family physician and a hospital group, there could soon be collected enough serum for considerable prophylactic work against measles in children under 5 years of age.

SUMMARY

1. In a previous report 57 children exposed to measles were observed; 9 were not given serum and all developed typical measles; 48 were given serum and 44 were entirely protected. Of the 4 developing measles, 3 were given the serum injection too late—8 to 12 days after exposure—and the course of the disease was apparently unaltered. One child given serum on the day of exposure developed typical measles 15 days later. There was one failure to protect in 45 cases given serum within 4-5 days of exposure.

2. In the present series, 100 susceptible children were given a 5 c.c. dose of convalescent measles serum. Eighty-one were entirely protected, 9 developed atypical measles and 10 developed the disease in a typical form. Of the 10 developing unmodified measles, only 3 were given the serum within 5 days of exposure.

3. From various reports the protective power of whole blood from persons who have had measles sometime previously seems fairly well established. Where convalescent serum is unavailable, this method may be used by the general practitioner to good advantage.

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Milan Occupational Clinic and Medical Conditions at Vienna Described by Dr. Louis M. Warfield in Second Letter

Wein, January 31, 1925.

My Dear Mr. Crownhart:

In my previous letter I told about some things I saw in Paris. My wanderings took me into Italy where there is but little to see. I had previously been told that Italy had not much to offer the American doctor. I knew that in Milan there was the only clinic of its kind in the world for the study of Diseases of Occupation, so while I was in Milan I looked up the clinic. I had some trouble finding it, but finally I located it. It is called "Clinica del Lavoro," via Santa Barnaba, 8. Unfortunately the only day I could go was a holiday (holidays with the Italians seem exceedingly frequent) so there were no patients in the Out-Patient Department. The place at first seemed deserted. I found one of the assistants who offered to show me over the clinic. He could speak no English. I could speak no Italian, but we both could speak German (at least he could speak and I could make myself understood).

The clinic is a large three-story building devoted exclusively to the study and treatment of Occupational Diseases, Prof. Luigi, Director. It was

founded in 1910 and is supported by the city of Milan. The building itself is of brick and stone construction. In the basement are the rooms for kitchen, etc., and the post-mortem laboratory. The first floor contains the offices of administration, rooms for the ambulant clinic, a large lecture room, and a museum in which is a fine collection of wax models of skin lesions produced by various substances used in industry.

On the second floor are two large wards for eighty male patients and completely equipped clinical laboratories. There are also several rooms for private research students. On the third floor are wards for forty female patients, laboratories equipped for chemistry, bacteriology, pathology, serology, and a large room, the library, in which are files of bound volumes of journals as well as all the current journals, especially those dealing with Occupational Diseases.

My guide told me that there were young men working in all the laboratories. An elective course on Occupational Diseases was given for medical students, and this year for the first time a course for practitioners was to be started. There were

no Americans working in the clinic. I was much interested in the view held by those in the clinic that lead was believed to cause general arteriosclerosis with contracted kidneys. That opinion has been held for some time, to be sure, but only as are opinions. They think they have evidence to prove their view point.

Now I come to Vienna, the mecca of the American doctor. After one has been here for a while and has become somewhat oriented he understands why so many Americans come here. The wealth of material is a constant source of wonder. It makes no difference what clinic one attends, unusual conditions are seen over and over again. The Viennese doctors have been instructing Americans for so long a time that the majority of them speak English. Consequently it is not absolutely necessary to know German in order to get most of the courses.

The American Medical Association of Vienna is in the Café zur Klinik building, across from the old Allgemeines Krankenhaus on the Spitalstrasse. A permanent secretary is there to give information and to accept dues. The dues are ten dollars, which makes one a life member, and a dollar a month so long as one is in Vienna. All the activities of the American doctor radiate out from the association's rooms. All the courses are posted on bulletin boards. If there is a special course which one particularly wants, he can usually find a man to give the course and several doctors to take it. In order to take the courses one must join the association. A course may be visited by a non-member but only once.

If the German (Austrian) doctors, the best of them, know more than the best of our American doctors (and that is a debatable question) it finds an explanation in the fact that here one always has the opportunity of seeing the pathological lesion. How many of our most interesting cases remain doubtful and cannot be completely studied because autopsy is refused. Naturally when every case comes to autopsy, as is the case here, one sees the most extraordinary lesions. In the large pathological laboratories there are from seven to a dozen or more autopsies daily. Unusual conditions are constantly seen. For example: Several days ago I saw an autopsy on a woman of 35 years upon whom the clinical diagnosis of lung tumor had been made. The left lung was one complete mass of peculiar looking, grayish solid tissue with

cavitation, due to degeneration in the upper lobe. The right lung, except for about three quarters of the lower lobe, was also completely invaded. The mediastinal glands were only slightly enlarged, the spleen and the liver contained only a few small nodules. Prof. Maresch, who performed the autopsy, could not say what the growth was. It proved, upon microscopic examination, to be lymphogranuloma.

It is interesting to find among many interesting things here, that the Viennese do not believe that there is a clinical entity called Banti's Disease. This seems to me to be important and I shall therefore enlarge upon it later.

Sincerely,

LOUIS M. WARFIELD,
Hotel Reginia, Wein IX.

1925 PROGRAM

(Continued from page 552)

member who knows of another member who has something worth while to contribute to become a tale-bearer at once. Moreover, we urge every member, who has nothing or thinks of nothing worth while to contribute, to make an immediate effort to find something and to start to work upon it, at the same time placing the light upon and not under the bushel.

Thus we are calling many and but few can be chosen. There must be no resentment. Some subjects, perhaps of more intrinsic value, will have to be discarded for others that will fit better into the general scheme. Please bear in mind that the audience comes first and that our obligations are to that audience.

Your committee believes that fewer subjects, well coordinated, presented succinctly and discussed intelligently, are far more beneficial than an overcrowded program that fatigues minds and bodies.

Clinics are to be introduced so that our guests may demonstrate to us methods with which we are less familiar and by which we may increase our diagnostic and therapeutic abilities.

The committee is organized for service and aspires to make the meeting a step towards better meetings. It needs and solicits the help of every individual and every medical organization in the state.

It is requested that communications be addressed to the secretary who will transmit them to member of the committee who is in charge of the department concerned. It is further requested that subjects be treated as indicated in the editorial and, insofar as practicable, subjects be chosen with relation to the principal themes, the anemias and radiotherapy.

Each contributor is urged to send with the title of his subject a synopsis of the subject matter which will, if possible, be printed on the program. Thus everyone can be prepared to add to the value of the meeting the pertinent discussions and questions that develop broader aspects.

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SERVICE AVAILABLE

There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 558 Jefferson Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical, Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. *Medical Books* will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. *Physicians' Exchange Column* is open to all members without charge.

4. *New Scientific Publications* listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. *State Laws* and departmental rulings can be secured through the Secretary's office.

6. *Legal Advice* upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

7. *Legislative Service.* Upon request members may secure information upon any measure introduced in the 1925 Wisconsin Legislature.

FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

EXCELLENT APPOINTMENTS

DURING February, Governor John J. Blaine announced the appointment of Dr. Adolph Gunderson, La Crosse, to the University Board of Regents and the appointment of Dr. Joseph Dean, Madison, to the State Board of Health. Dr. Gunderson succeeds Dr. Gilbert E. Seaman, Milwaukee, and Dr. Dean succeeds Dr. W. F. Whyte, Watertown.

We congratulate the Governor upon securing the service of these physicians. They are able successors to able men.

MEDICAL TESTIMONY

SINCE the beginning of medicine, doctors have disagreed. Lay persons regard it as a natural state of mental activity in the profession. The doctor's problems and methods of work lend themselves to such differences of opinion. In his contact with the law and legal profession, the average doctor gets on little better than with his fellow practitioners in this respect. Thus medico-legal situations often enough furnish material for bickerings and critical comment that are of no value to any one and serve only to widen the gap between the professions. There is something to be said about legal practices that no longer fit our modern problems and the heckling attorney with offensive verbal outpourings and domineering attitude is still with us; yet after all the law is *our* law and must be respected until we change it in the proper way.

In Wisconsin there is an increasing opportunity for physicians to serve both medicine and the law in a way that will bring them closer together. Quite often physicians are asked to appear as witnesses before the state industrial commission. True enough, it is hard not to be a bit biased by one's experience and one's point of view, but in the determination of the essential facts of most medical problems, there ought not to be a very wide discrepancy. In these inquiries the doctor is treated as a professional gentleman, the commissioners' aim is to get the facts of a given situation with little delay, without formality and with little of the ego and persiflage that occasionally crop out in more formal proceedings. Such appearances before the commission are not as a rule emergency

calls. Let us as physicians have sufficient pride in our work to inform ourselves thoroughly of the details of the case in question. Let us be prepared to give a simple clear cut account of our observations, care and treatment and conclusions. Above all, let us get away from the use of technical phraseology (a phrase so dear to the heart of our critics) as much as possible.

We believe a moderate amount of effort in this particular field of medicine will be fully appreciated by all and give our profession a better community standing.—R. E. M.

VITAL STATISTICS

MORTALITY and morbidity statistics have been likened to the ledgers of private business, in statements concerning their importance to health officials. This should be true. But so far as federal figures are concerned, they are more similar to the data with which historians and antiquarians work.

Vital statistics are not *vital* when the student is compelled to wait two years or more for their publication. At the present time, the latest published federal figures are for the calendar year 1922. Fancy a business man directing his 1925 policies on profit and loss statements of two years back!

The government requires you and me to file our income tax statements sixty days after the close of business of the last preceding year. If you are like me, you probably finish your statement only just in time to get it in before the close of business on the last day. If granted more time, we'd probably take the limit—and with no more satisfactory results to the tax collector or ourselves. I wonder if this is not just about the case with the accountants of our federal mortality and morbidity statistics? They have gotten away with being about two years behind and now they are satisfied to be *punctually late*.

The statistical bureau of our own State Board of Health is far more punctual, and hence far more useful to the student of medical and social statistics. But, its work is not satisfactory to itself (least of all to itself), nor to health workers in general, for another reason. For the want of sufficient funds, it is not possible to put the

illuminating facts to work as much as they should be. The entries are made promptly and reasonably satisfactorily, but there ought to be more *special statements* prepared and published than means permit.

A business man does not get his most valuable information from his ledgers, but from the trial balances, and other special studies made by the auditors and analytical accountants from data *taken out* of the ledgers. We doctors cannot expect the legislators, by themselves, to appreciate the life-saving value of vital statistics, but we should show them how valuable it would be to public welfare to have something in the way of dispatches on contagious-disease-spread, for example, which would compare with market reports to the merchant, or with weather reports to the farmer and shipper.—II. E. D.

LEGISLATIVE RESPONSIBILITIES

BY THE time this *Journal* reaches you the 1925 session of the Wisconsin Legislature will have convened, organized, selected committees, and be in the midst of its work.

To the 1950 members of the State Medical Society of Wisconsin, we believe the appended letter from Dr. W. C. Woodward, Executive Secretary, Bureau of Legal Medicine and Legislation of the American Medical Association, will be of very real interest. Dr. Woodward addressed this letter to Dr. F. C. Warnshuis, Secretary of the State Medical Society of Michigan. It has just been published in the *Michigan Journal*.

The program of our own Society, adopted over a year ago, so closely parallels the present recommendations of Dr. Woodward that we believe his letter will be of very real interest to ever member. "Editor The Journal:

"Since our conversation of November 20, I have given considerable thought to the policy contemplated. I understand, by the Michigan State Medical Society, of submitting to the state legislature a printed brief showing the dangers of quackery, and thereafter ignoring any efforts that quackery may make to install itself, in the form of a licensing board or licensing boards composed of quacks, as an integral part of the Government of Michigan. I have been unable, however, to reconcile such a course with the traditions of the medical profession. It seems to me too much like withholding from the people the benefits of the special knowledge possessed by the medical profession, and the medical profession alone.

"I assume that the Michigan State Medical Society

believes that quackery is a menace to public health, safety and morals; otherwise it would have no ground on which to file even the proposed brief. So long as the Society entertains that belief, every tradition of the medical profession, it seems to me, requires it to let the people have the benefit of the professional knowledge on which the belief is founded. The Society can hardly justify itself in presenting to the legislature simply a dignified, calm, dispassionate statement of facts, any better than it could justify a similar course in urging legislation for the protection of the people if it were the plague bacillus threatening them, and not merely the chiropractor, the naprapath, etc. At least, the burden of squaring its course with the traditions of the profession, in the one case as in the other, would be on the Society, and before embarking on the proposed course it might be well for the Society to set down in black and white the reasons that lead to it. Is the reason anything more than that the Society is tired of conducting biennial campaigns for the protection of the people, and of being abused by the very beneficiaries of such campaigns? If so, is that a sufficient justification for inaction? If the Society is relying on any other justification, how will it square inaction at the present time with its previous activities?

"Of course, one must concede the legal right of the medical profession to withhold its aid. Its moral right to do so, however, is not so clear. No group of persons lose, by reason of being physicians, any of the obligations of good citizens to serve the people; and if the people as a mass need information that the medical group has, it seems to me to be the duty of the group to supply it if practicable. The fact that the legislature or some other agency of the people is not aware of its own need for such information increases, rather than decreases, the obligation of the group to supply it.

"Unless the medical profession is ready to repudiate its supposed civic duty to protect the people with regard to matters of health, safety and morals—a duty incumbent on all good citizens—I can not see how the profession can single out for repudiation so much of that duty as relates to protecting the people against quackery. Persons who practice the healing arts have almost limitless opportunities for immorality of the worst kind, and must be fortified by the proper moral standards. Even if they be not deficient morally, but are simply ignorant and unskilled, they jeopardize the welfare of the people through the injuries they do in the course of their practice. These dangers are better known to the medical profession than to any other group. I can see no reason why the profession should ignore the danger, and abandon the people to their fate.

"I doubt very much if anyone familiar with legislative matters would expect the suppression or the regulation of quackery to result from the mere submission of an unemotional, logical, printed statement of the dangers inherent in it. Such a statement is readily torn to pieces before a committee or in private conference with a legislator by any glib quack. Such a one can readily play on the lack of information of the average legislator, and upon the duplicity as well as

the ignorance of any legislator eager for an excuse to vote in a way that will procure for him the support of a noisy, organized group—even a group of quacks. Such legislators can justify their votes in favor of quackery by the fact that the quacks have presented plausible arguments to offset statements in the printed brief of the medical profession, and that the medical profession failed to meet the issue.

"After all, too, the enlightenment of the legislators is hardly sufficient to lead them to action. It may show them how they ought to act, but an impression on the feelings is ordinarily necessary to bring about action. And such impression is hardly possible through a printed brief. It requires personal contact—the action of the voice, the expression of the eye, and essential emotional force in attitude and facial expression. The medical profession is, I believe, ordinarily apt to overlook the need for such appeals and the legitimacy of them.

"It seems to me that the people of Michigan are entitled to the aid of the medical profession in preventing enlargement of quackery within the state. The fact that it is a disagreeable and exhausting task to afford such protection is in my judgment hardly a sufficient ground for inaction. Personally, I hope that the Michigan State Medical Society will continue to stand before the public as an active civic force in protecting the people against the evils of quackery in the treatment of the sick.

Sincerely yours,

Wm. C. Woodward, Executive Secretary,
Bureau of Legal Medicine and Legislation."

—J. G. C.

AS OTHERS SEE US

THE FULL TIME SECRETARY

At the annual conference of Secretaries of Constituent State Medical Associations held in Chicago during November, 1924, some excellent ideas were set forth. And to our mind Mr. J. C. Crownhart, the full time Secretary of the Wisconsin Association, offered some of the most interesting ones. Crownhart is a young fellow with previous newspaper and advertising training, we learned. He is paid a good salary by the Wisconsin Association to make the machine run effectively.

Among his achievements was the establishment of a circulating medical library. It was accomplished as follows: First the authorities at the University of Wisconsin Library were persuaded to manage the sending and exchanging of books. The books finally becoming the property of the library. And next the editors of the Medical Journal were asked to send all medical books received for review to the library after the review

had been written. And a list of volumes received at the library was published in the Journal. Then the members of the Society were invited to write in for available books which they might want to consult. It seems a simple and effective scheme. We were assured that it worked well. Would it not be possible for our State Society to sponsor a library of this nature?

Doubtless many individuals would be pleased to have this chance of securing a special book. And likely many interested members of the association would want to send in to the library some volume which they have read and found especially helpful. Let us all work to accomplish this.—J. A. F.

—*Editorial, Maine Medical Journal, January, 1925.*

THE JOURNAL CLINIC

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The University of Wisconsin

CATARACT

FROM THE CLINIC OF

V. A. CHAPMAN, M.D.,

MILWAUKEE COUNTY HOSPITAL.

"We have here a well nourished man sixty-four years of age, who has been active in railroad operating out door life for many years.

"This man has a blind right eye. He states that this eye has been blind for a period of fourteen years, and that vision had been failing with this eye for some time before that. There has been no pain in this eye or in association with it. Never any injury to the eye that he can remember. He states that at times when he moves his head or turns the eye, something seems to float partly away from in front of it and he can see better for a moment or two. The vision of this eye is light perception only with good light projection. He never has had any trouble with left eye and vision is good with that eye.

"The pupil of the right blind eye is active to light, direct and consensually, and is consensually active to accommodation.

"Upon inspection we find a very normal appearing right eye with exception of the pupil area. Here instead of the uniformly black pupil we see one of redish yellow color: almost the color of dark pus. We see upon movement of the eye a tremor or waving movement of the iris. We see also a doubtful movement of the lens. Upon par-

tial dilatation of the pupil we can see past the upper outer margin of the opaque lens.

"This man has cataract of the right eye. The opacity is complete and of peculiar color and probably of unusual consistency and character. This opaque lens is probably loosened or partially loosened from its usual attachments. Can we remove this cataract? Certainly we can. *Should* we remove this cataract? That is a question which permits of some difference in opinion.

"If we successfully remove this cataract, no doubt this man will be able to get very nearly normal vision with the operated eye by use of a lens of proper focus and character before the operated eye. He has very nearly normal vision with the *left* eye now without a lens in front of it. Therefore we can reasonably assure this man that after operation he can by the use of spectacles get normal vision with *each* eye. We cannot, however, assure him that he can get normal useful and satisfactory vision by use of spectacles after operation, with *both* eyes. Why? Because of the great difference in the strength of the lenses which it is necessary to use for refractive correction of the unoperated eye which has its own lens in situ and in use, and that necessary to use for refractive correction for the right operated eye which will then *not* have its own lens in situ and not in use. There is almost certain to be diplopia and other annoyances which will make it difficult for this man to wear correcting lenses for *both* eyes at the same time, after removal of this cataract.

"Therefore he will be much disappointed by results if this matter is not carefully brought to his understanding before operation.

"Then should we wait until this man's left eye becomes also blind before we operate this blind right eye?

"This patient is in good health now. There is no direct contra-indication whatever to operation of the now blind right eye. If his left eye becomes later also blind there may by that time be present many contra-indications to operation of either eye. He will be older. His tissues will not be as well nourished. He may have infections of various types. He will be more likely to develop unfavorable complications following the operation. The combination of these possible complications may indeed make it impossible, or at least precarious, for either eye to be operated and in that

event he would have to pass his remaining days in darkness.

By successful operation of his blind right eye now we can greatly enlarge his field of vision for objects. He will be able without a lens, to see objects at his right side which he now cannot see at all. This will be a great help to him in many ways and may save him from being run down by an automobile at a street intersection. Moreover, when the time comes that he may be blind in his left eye, he will have all ready for use with a correcting lens, this now blind right eye without a period of darkness no matter how old he may be or whatever complications he may then have to prevent successful operative results. With all this for and against discussion understandingly explained to this patient we will leave it to his own decision as to whether or not he wants this cataract removed from his blind right eye now."

THE PATIENT: "I want it done now."

CERTAIN MANIFESTATIONS OF
MULTIPLE SCLEROSIS*
BY SYDNEY K. BEIGLER, M.D.

MADISON

The consensus of opinion of neurologists at the present time ranks multiple sclerosis next to syphilis as the most frequent disease of the central nervous system. In spite of its frequency, however, it probably more commonly escapes recognition particularly by the general practitioner than does any other disease of the central nervous system. Multiple sclerosis presents very little difficulty when in the advanced stages of the disease but in the early stages when none of the symptoms or signs have fully developed, the diagnosis, at times, becomes exceedingly difficult and very often puzzling. Failure to recognize multiple sclerosis especially in the early stages may be largely attributed to the fact that most observers are of the opinion that the classical symptoms of nystagmus, scanning speech and intention tremor are essential in all cases to make the diagnosis. When Charcot first described multiple sclerosis and introduced the salient triad of nystagmus, intention tremor and scanning speech, he by no means wished to imply that they constituted inflexible criteria for such a diagnosis but rather that they are the most frequent and prominent

*From the Department of Clinical Medicine, State of Wisconsin General Hospital, University of Wisconsin.

findings. At present the diagnosis of multiple sclerosis is made and justifiable even in the presence of widely varying manifestations and in the absence of one or two of the famous triad.

The following report of cases will demonstrate the diversified character of multiple sclerosis both in its symptomatology as well as findings on physical examination.

CASE I—C. M.

An American farmer 35 years of age was admitted complaining of pain in the back, of two years' duration. He describes the pain as coming on suddenly, dull aching localized to lumbar region and at times radiating down the legs. About the same time he also noted stumbling and weakness in his legs which has been progressing ever since. Several weeks before admission he also began to have weakness, pain in his hands and inability to hold on to objects. Past and family history is entirely negative.

Physical examination showed a well nourished and developed individual with a suggestive scanning speech. Examination of eyes revealed unequal palpebral fissures, left greater than right, and an inconstant bilateral horizontal nystagmus. Pupils were equal and reacted well to light and distance. Tongue slightly tremulous; marked pyorrhea. Heart, chest and abdomen were negative. Reflexes showed increased knee jerks, fluctuating abdominals, sometimes present, sometimes absent, varying even in the same hour. Suggestive right Babinski. Gait was somewhat spastic with marked toe drop on the right foot leading to a shuffling of this member. Finger to nose test showed no intention tremor, ataxia or dysmetria. No asynergy. Blood and urine examination was normal. Blood Wassermann negative. Spinal fluid Wassermann negative. Gold Sol. 0000000000, Ross Jones and Noguchi negative.

Diagnosis: Early multiple sclerosis.

CASE II—L. I.

A Norwegian farmer 38 years of age entered the hospital complaining of weakness and difficulty in walking of two years' duration. At the onset of his trouble, he first noted weakness and loss of strength in both upper and lower extremities. Condition has gradually and progressively become worse until at time of admission he was unable to work or walk about without some assistance. There was nothing of especial interest either in the past or family history.

Physical examination showed the patient to be a well nourished and well developed individual with marked impairment in speech. Speech was indistinct and scanning in type. Eyes showed a bilateral horizontal and vertical nystagmus with definite pallor of nerve heads. Tongue was normal in appearance but slightly tremulous. Examination of heart, chest and abdomen was essentially unimportant. Upper extremities showed a definite intention tremor, ataxia and slight dysmetria in the finger and nose test. Lower extremities showed no evidence of muscular atrophy. Gait was ataxic with slight amount of spasticity. Test of

reflexes revealed absent abdominals with exaggerated biceps, triceps and knee jerks. Positive Babinski in the right foot with suggestive Babinski in the left.

Laboratory examination of blood and urine was normal. Blood Wassermann was negative. Spinal fluid Wassermann was negative. Gold Sol. 3332100000. Ross Jones and Noguchi negative.

Diagnosis: Multiple sclerosis.

CASE III—W. C.

An American machinist, age 35, was admitted on 11-1-24, complaining of weakness, numbness and inability to use the right upper and lower extremities. At the age of 16 it was first noted by his friends and relatives that there was some clumsiness in the use of the right foot. Not until five years ago, however, did he begin to have marked weakness, throbbing sensations and numbness in the right hip, later involving the right knee and finally the right upper extremity. The process has been gradually progressing ever since. Among other treatments he also received intravenous therapy for two months with no apparent relief. No history of any acute illness preceding the onset of his symptoms could be elicited. The only other symptom in his history that is of any significance is frequency

D 10-12 x

of urination ————— and suggestion of vesical weakness. No incontinence. For the past year he has had loss of libido and sexual power.

N 3-4 x

On physical examination it was noted that the patient was well nourished and well developed. Pupils were equal and reacted both to light and distance. No nystagmus was present but he had some weakness of the internal rectus on the right; some widening of the left palpebral fissure and also right sided weakness of the face. He also had a bilateral impairment of hearing with no disturbance in speech or deglutition. Lungs, heart and abdomen showed no abnormality. Both right upper and lower extremities were spastic with some atrophy of muscles of the right upper extremity. Wasting was most apparent in the deltoid and serratus giving him difficulty in elevating and abducting the right arm. There was also some wasting in the muscles of the arm and forearm. Slight wasting of right interossei muscles. The affected muscles, however, did not show reactions of degeneration. Gait was spastic and shuffling in character. Finger and nose test showed no abnormality except for clumsiness. Examination of reflexes revealed absent abdominals and cremasteric with exaggerated knee and ankle reflexes. There was a definite patellar clonus on the right, abortive clonus on the left. Bilateral ankle clonus as well as a bilateral Babinski was present.

Blood and urine examinations were negative. Blood Wassermann negative. Spinal fluid Wassermann negative. Gold Sol. 5555421000. Ross Jones and Noguchi +.

Diagnosis: Disseminated sclerosis.

CASE IV—M. H.

An American housewife 34 years of age was admitted on 12-8-24, complaining of inability to use the left arm and leg properly. Present complaint began about two years before admission, prior to which time patient

had been free of any symptoms. The onset of present illness is described by the patient as being gradual, beginning first with slight swelling of left knee joint. Swelling was not accompanied by any other symptoms and was immediately followed by numbness, weakness and loss of power of the entire left leg. The left upper extremity became involved about a year ago with marked weakness in hand and inability to flex the fingers. This condition has remained about the same since onset of illness. About six months before admission began to have some defective vision in left eye, rectal and vesical incontinence and insomnia. The past medical history is essentially negative except for an appendectomy and partial oophorectomy eight years ago.

Physical examination revealed a bilateral horizontal nystagmus with pallor of temporal side of left disc with blurring of the edges. Chest and abdomen showed no abnormality. Extremities showed a subcyanosis of fingers and toes, moist clammy skin and marked weakness in the left grip. Left lower extremity showed limitation of extension and flexion of toes as well as in adduction and abduction of leg. Gait was spastic, scythe type, slight limping to the left. Reflexes showed absent abdominals, increased knee jerks and suggestive positive left Babinski. Finger and nose test showed slight ataxia but no intention tremor or dysmetria. Asynergy in left hand. Blood and urine examination was normal. Blood and spinal fluid Wassermann were negative. Gold Sol. 5443210000. Ross Jones and Noguchi negative.

Diagnosis: Multiple sclerosis, hemiplegic type.

CONCLUSION

From the cases here recorded it is apparent that the manifestation of multiple sclerosis differ according to the site and extent of central nervous system involvement. Case I is interesting because it exemplifies the importance of early diagnosis and prognosis. Case II did not present any difficulty as far as diagnosis was concerned as it was a fully developed case with all the characteristic signs and symptoms of the condition. In Case III the possibility of an amyotrophic lateral sclerosis was considered in the differential diagnosis but was ruled out by the absence of fibrillary tremors and reaction of degeneration in the affected muscles. Case IV is of unusual interest in that it shows the possibility of a disseminated process being hemiplegic in type or distribution.

The sequence and the mode of development of the signs and symptoms are important in all cases and require proper interpretation particularly as an aid to prognosis. It is urged that the combination of signs and symptoms be emphasized rather than the individual symptom. Finally a typical text-book picture of multiple sclerosis is not necessary for the diagnosis of the disease.

UNIVERSITY OF WISCONSIN MEDICAL SOCIETY: REPORT OF MEETING

A Moving Picture Demonstration of the Management of Fractures with Special Reference to Fractures of the Neck of the Femur

BY HUGH MCKENNA, M.D.

CHICAGO

Doctor McKenna presented in a very interesting manner, aided by motion pictures, the technique of the open treatment of fracture in the neck of the femur. He introduced the subject by a discussion of the importance of the question from the standpoint of the morbidity from fractures of the neck of the femur.

The embryology and anatomy of the parts concerned were discussed in some detail. Reconstruction of fracture, obviously, depends upon the integrity of the blood supply. Figures were presented to demonstrate the lines of stress and strain. Realizing the importance of the maintenance of the blood supply through the ligamentum teres and the capsular ligaments, the preservation of these structures was emphasized. The speaker next showed the utilization of his special fracture table and stressed the importance of perfect asepsis in bone work, particularly where transplants from aseptic areas are concerned.

In choosing cases for open treatment, Doctor McKenna stated that the existence of impaction definitely ruled out the necessity for such operative interference. If, however, there is no impaction an open operation gained time and improved function for the affected individual. On the 8th day the stitches are removed and at the end of the 15th week the patient is removed from his cast. In the last fourteen cases so treated Doctor McKenna reports no fatalities nor infections. The only complication in this group was pulmonary embolism on the 16th day, which case, however, completely recovered.

Bronchial Asthma

BY KARL K. KOESSLER, M.D.

Dr. Koessler stated that the beginning of our accurate information regarding this disabling condition began with the work of Richet in 1902, on anaphylaxis. The allergic theory of asthma dates from this observation. He cited the fundamental experiment of anaphylaxis in which guinea pigs were inoculated with 100 c.c. of horse serum. Five days later one of the test animals was given 1 c.c. of horse serum while the second animal of the same group was given 1 c.c. of horse serum two

weeks later, intraperitoneally or intravenously. Restlessness, scratching, sneezing and dyspnoea with death resulted in the second case. The third animal which had received no previous sensitizing dose of horse serum had no reaction from the intravenous injection of 1 c.c. These guinea pigs so sensitized die as a result of acute emphysema, the bronchi being occluded by a spasm of the circular musculature. There is a great fall of blood pressure, the eosinophiles are increased; oedema and hyperamia of the mucous membranes result. While the clinical picture parallel to this condition of anaphylaxis is occasionally seen the combined chemical and electrical stimulation alone parallel this circumstance experimentally. Seventy to eighty per cent of bronchial asthmas have an allergic basis. Mucous glands and endothelial structures, in general, are susceptible to the anaphylotoxin, but it is in the unstriated muscle structures that the most striking effects are seen. Atropine and adrenalin not only relieve the attacks but prevent their occurrence.

Expiratory dyspnoea was an early observation and bronchial stenosis from spasm of the smooth muscle of the smaller bronchi was early called in as an explanation. The action of adrenalin obviously lends support to this belief, and bronchoscopic studies have likewise supported this contention. One milligram of muscarin will stagnate the blood in the lung with resulting asthma. Epinephrin increased the stasis but relieves the attack. Asthma clinically arises from irritation of the respiratory tract, reflex to the vagus and through chemical or drug stimulation. Diagrams were drawn to demonstrate the arcs of reflex action in the mechanism of production of this phenomenon.

Doctor Koessler pointed out that two distinct substances acted in this relation. A nitrogen containing substance acts as an antigen, and members of the carboxyl group split by CO^2 -amines in the main—likewise. He discussed at some length the chemistry of these subjects. Histamine is present in the stool in large quantities and its relation in some of these cases must be considered. Any protied of food of bacterial origin must be considered in the light of a possible sensitizing agent. Clinically skin tests of food and animal protieds are applied to determine sensitization and our clinical information of the subject is more accurate from this standpoint than from any other since there are only four reported postmortem

examinations on individuals dying from asthma. The most common causes of asthma are the pollens, the animal substances (as dander and hair), foods (the most important group from the standpoint of amenability to treatment) and infections.

In the few postmortem studies reported, hyperemia of the musculature of the bronchial tree with actual constriction and eosinophilic infiltration of the mucosa of the bronchi have been observed. The evidences demonstrable clinically are dyspnoea of an expiratory type and eosinophilia. As a matter of fact the eosinophilic infiltration of the bronchi is practically diagnostic of asthma. In treatment desensitization results from subcutaneous minimal doses. The intradermal method of testing sensitization is possibly more sensitive than the scratch method, but death is possible and has resulted; therefore we should lend our support to the scratch method rather than take the risk of the intradermal route. Before ten years of age practically all cases are of food origin. The treatment of these cases aside from desensitization consists in the elimination of the stimulating or sensitizing food stuffs or other antigens. The drug treatment consists in the use of adrenalin which will in doses from 5 to 15 mm. give relief for some hours. Atropine is useful and potassium iodide is an old standby. Morphine should never be used, because of the long duration of the disease and therefore the danger of becoming an addict.

MOST UNFAVORABLE TIME FOR TRANSUTERINE INSUFFLATION TO TEST TUBAL PATENCY

From an analysis of 1,000 consecutive insufflations, I. C. Rubin, New York (Journal A. M. A., Feb. 14, 1925), is convinced that the week following a regular period is the most suitable time in which to apply the test. From the fourth to the seventh day following the cessation of the last regular period is the interval of choice. The endometrium is then in the relatively quiet stage and is least liable to infection, though the latter is extremely remote in careful hands. In order to avoid interfering with an existing or extrauterine pregnancy, it is best always to choose the post-menstrual interval for uterine insufflation. This rule is of especial value in cases of amenorrhea of shorter or longer duration in which it is otherwise impossible, if the patient presents herself several weeks after the last menstruation, to determine the length of gestation. As ovulation occurs not sooner than from twelve to fourteen days from the onset of the last preceding menstruation, pregnancy cannot take place before this time, and insufflation is theoretically and practically safest when done within a week after cessation of a regular menstruation. The theoretical possibility of endometrial dislocation, as well as of embolism formation, is also thus eliminated. Clinical and experimental observations have pointed to the advisability in any event of not exceeding a pressure of from 200 to 250 mm. of mercury. Higher pressures have been employed by experienced hands in the attempt to open tubes that have been previously demonstrated to be stenosed or closed. It will not do for the beginner in this work, and it goes without saying that such attempts are best undertaken under the most favorable auspices. Finally, by selecting the fourth to the seventh day, the therapeutic possibilities of the test become increased while more uniform results as regards the pressure-rate-flow, on the one side, and tubal patency, stenosis or occlusion, on the other, will be obtained.

PREVENTIVE MEDICINE

Edited by

W. D. STOVALL, Chairman

Section on Preventive Medicine, State Medical
Society of Wisconsin

This Section is open to all members of the State Medical Society and others who wish to discuss subjects pertaining to Public Health. Original articles, and criticisms of statements appearing in this section are earnestly solicited. Questions concerning public health procedure will be answered. Address communications to Dr. W. D. Stovall, State Laboratory of Hygiene, Madison, Wis.

CHEMISTRY CREATES ASTONISHING HEALTH AIDS

BY ELMER L. SEVRINGHAUS, M. D.,

ASST. PROF. OF PHYSIOLOGICAL CHEMISTRY, UNIVERSITY OF
WISCONSIN MEDICAL SCHOOL, AND CHEMIST,
WISCONSIN STATE GENERAL HOSPITAL.

I well remember that when I first began to study chemistry, I saw a chemical aspect to everything I looked at. Chemistry seemed at the time the most important and most fundamental thing of which I knew. And yet to those who have not studied chemistry, it probably seems a foreign thing associated with university laboratories and drug stores, as it formerly did to me. It is not difficult to show how very close to all of us chemistry comes. Of course, any advance in chemical science which improves the practice of medicine will probably be of value to some of us when in need of a physician's care. But the modern emphasis on prevention of disease is an expression of our preference to avoid the necessity for a doctor's help. It would not be strange, therefore, if attempts were made to bring chemistry to the service of preventive medicine. But the advances and researches into chemistry have done even more: they have shown possibilities for avoiding disease and improving health, and have been in themselves the stimuli to more extensive work in the preservation of public health. The history of our knowledge of the vitamins is an illustration. The studies began as an attempt to find the cause of one disease often seen in the Orient. The work became a problem of the chemical and other laboratory sciences which are associated with the study of medicine. A great many facts have been discovered which were not related in any way to the original problem of the one disease. Out of this work has come the possibility of avoiding other diseases. This new knowledge has been the stimulus to many physicians to instruct their patients in habits of eating which will insure better health.

It is beyond the scope of this paper to describe

the types of disease in which a lack of vitamins may play a part, or to list in detail the vitamin containing foods. It is true that there are very few foods which do not contain some vitamin. Nevertheless, there is no community which does not number among its inhabitants some who have suffered from an insufficient supply of at least one vitamin. There is now good evidence of five different ones of these peculiar food substances. One of them seems to be necessary for normal appetite and for the continued health of our nervous systems. Another is of great importance in keeping up a resistance to infections with bacteria. Nearly every mother now knows that babies need the juice of oranges or tomatoes for a third vitamin which prevents the appearance of scurvy. We know also that a fourth vitamin is one of the means by which the growing child develops its bones properly. Quite recently, a fifth one of the group is shown to be necessary for the process of reproduction in animals. It is too early to decide definitely on the importance of this substance in human health. Since most foods contain at least some of one or more of the vitamins, it appears that an adequate supply should be easily secured. There are two difficulties. One is that in the highly civilized state in which we live, we eat a large proportion of cooked, canned, or otherwise prepared foods. In some of these processes of preparation, the vitamins occurring in the foods are partly or completely destroyed. Another difficulty arises from the diets of some individuals which are restricted to a few foods, not chosen because they are known to be the best foods, but because they are cheap or easily secured. No one of our foods contains adequate amounts of all five of the vitamins. The obvious way to avoid a lack of these essential substances is to eat a wide variety of foods, and to use liberal amounts of uncooked foods, such as fruits and salad vegetables. There has been a considerable attempt by certain manufacturers to sell tablets of concentrated and purified vitamins. This sounds like an easy way for the physician to prescribe for a patient whom he wishes to insure against a deficient supply of vitamins. But these preparations are often found to be less valuable than the simple foods, and they are not reliable. The family physician can do more for the health of his patients if he is consulted as to diets and additions which may be ad-

vantageous, than if he is asked for a prescription for vitamins to be filled by the druggist.

The work which has been necessary to demonstrate the value of vitamins has been done largely by chemists, although little is known of the chemical nature of vitamins. There are also a number of other ways in which chemists and physicians employing chemical methods have made contributions to the preservation of public health. Many of these problems have been phases of the relation between supply and demand of food for the individual, that is, the question of nutrition. For centuries, fasting has been used not only as a religious rite, but as a part of treatment. There are some very definite benefits to the fast, for certain types of sick persons. But the more recent exact studies of fasting have shown that there are also some results of fasting which are of no benefit and which may be harmful. This would not apply to the missing of one or two meals, but longer fasts should not be undertaken without the advice of a physician. With the present vogue for slender forms among the American women, fasting is undertaken all too frequently. Many such individuals suffer weakness and ill health for long periods to accomplish a reduction in weight. The medical men of today know that fasting is not necessary for a rapid reduction of weight. In fact, the reducing subject may be quite comfortable and satisfied with food and yet lose weight at as rapid a rate as is safe. The essential foods which must be supplied daily are those containing the proteins, carbohydrates, vitamins, and mineral salts. Our bodies need protein constantly to replace the wear that occurs regardless of work. The vitamins and mineral salts must be furnished because the body cannot make them. The large proportion of excess weight in fat persons is due to fat. The principle of a reducing diet is the elimination of as much fat as possible, and the restriction of the carbohydrates, so that the body may be made to burn its own excess fat. The amount burned may be increased by exercise. But the body must not be forced to burn the fat alone, or a dangerous condition resembling that of severe diabetes may result. It is, therefore, necessary to restrict the sugar and starch content of the diet, but to be certain that there is enough of this carbohydrate eaten each day to enable the body to burn fat properly. It is not safe to undertake a radical reducing diet without the advice of a physician.

Since excess weight is dangerous to health in the latter half of life, it is obvious that the physician with an understanding of the chemical processes may make a real contribution to the health of the families who consult him.

A very similar argument applies to the feeding of a patient with a fever. Usually such patients do not care for much food. The presence of fever is always accompanied by the consumption of more food than normal by the body. The condition is exactly like one of fasting accelerated. Consequently, the fever patient must be fed at least some sugar and starch, even if it is difficult to give protein. The loss of fat from the body will not be a serious matter; it will be replaced soon enough.

The American people have been making a marked voluntary restriction in the use of protein containing foods in the past two decades. Some vegetarians continue their custom, but for the majority the restriction is in the amount of meat and bread which is eaten. This has been done in part because of the belief that excess protein food was a factor in causing diseases of the heart, blood-vessels, and kidneys. Although we are not now as certain that this is true as formerly, there are undoubted benefits from this change in our national dietary. The chemical studies of the value of the vegetables as compared with animal sources of protein food, have shown that it is perfectly possible to lead a strictly vegetarian existence. This means real abstinence from all animal products, such as milk and eggs, but it is only a safe procedure when the vegetarian diet is planned and supervised by an expert in nutrition. Strict vegetarianism cannot be recommended for that reason. But with the addition of milk and eggs, the diet becomes far safer. Out of such studies the physician has learned from the chemist the remarkable dietary value of milk. One of the important matters for health education at present is the impressing of parents with the importance of a liberal milk supply for growing children. Not only does this supply fine protein foods, good fat, and some of the essential vitamins, but milk is one of the best sources of the mineral matter from which bones and teeth must be constructed. The family physician can lay the foundation for healthy adult life by insisting that the children have milk as regularly as if it were a medicine he had prescribed.

As it becomes more and more necessary to house

thousands of our citizens in asylums, schools, prisons, and other institutions, the diet for these thousands must be selected by a few individuals. It is obviously important that these few individuals understand the essentials of an adequate diet as well as the preparation of palatable meals. It is now understood that certain diseases which have appeared in epidemic form in institutions are merely the result of deficient diets. One such instance is pellagra, a condition which begins insidiously, but leads eventually to mental deterioration and death. The use of a proper amount of meat or other good protein containing food is ample means of prevention. We must expect to have such public institutions adequately supervised in a medical way, as well as by educators or wardens who are in charge of the primary work of training or care of the inmates.

Since Wisconsin is one of the states which is located in the region where goiters are extremely common, the prevention of this condition is a matter of importance to every citizen. By the collaboration of the chemist and the doctor, we have now been assured that the cause of the common goiters is simply a lack of iodine in the natural water of this part of the United States. It has been demonstrated that if this deficiency is made up by the addition of the proper amounts of iodine in the diet of the child, goiter almost never appears. This is so simple that it is frequently neglected. Every mother in Wisconsin ought to see that her children are given iodine at the advice of the family doctor, beginning long before school age. Since iodine is a requirement of the body, it is only reasonable that every one should have the supply made adequate. One of the simplest methods for insuring this is to have the iodine added to the common salt used in the home. This is now being done in many parts of the country. Since there are at least some theoretical objections to this practice, the State Board of Health in Wisconsin advises against it. It is, therefore, necessary that iodine be taken under the orders of the physician. In case there is a goiter, it is possible for the physician to prescribe iodine in different amounts which will often cause the growth to disappear, or at least to prevent its development into a more dangerous form. Some types of goiter are very easily converted into more dangerous forms by the use of iodine in excess, and therefore it is unsafe for any individual with a

goiter to use iodine without the advice of a competent physician. The real understanding of this whole situation has grown out of two lines of chemical work undertaken by the medical profession. These are the analysis of the food and water for iodine, and the study of the "basal metabolism" of normal and diseased persons. The determination of the basal metabolism or minimum heat production in one day was originally a very tedious process. It has now become so simple that it is done in half an hour in most of the good hospitals or clinics anywhere in the United States. This gives one of the most important pieces of evidence as to the different types of goiter. After such examinations and the treatment which has become possible as a result, the physician can often work wonders in the restoration or preservation of health of the patient suffering from a dangerous goiter.

This same method of determining the basal metabolism is a part of the study which is often made of the diabetic patient. The results are a guide to the physician in prescribing the diet. After making this determination and noting the type and amount of work that the patient desires to do each day, the doctor can order three meals which will satisfy hunger and enable the individual to do his work without loss of weight. If the disease is so far advanced that the patient cannot use all the food, but loses some sugar in the urine, then insulin has to be injected. Here again is seen a triumphant contribution of chemical work to the health of thousands of people. It is doubtful whether insulin ever cures diabetes, but it certainly causes many diabetics to improve permanently. Nevertheless, we must look on the preservation of health in at least two ways. It is, of course, highly desirable to maintain the body in an absolutely sound and normal condition. But from accident, carelessness, or human ignorance of the laws of hygiene, many of us sooner or later contract some disease which causes damage or destruction to a part of the body. This is the case in diabetes, but likewise in many types of heart disease, kidney trouble, goiters, and other so-called "chronic" diseases. It is becoming increasingly possible for the physician to stay the process of the disease and to educate the patients in habits of life which will enable them to live happy, useful lives. This is really conserving the health which remains, rather than allowing the disease to progress

steadily. The recent progress in the treatment of diabetes which has resulted from the discovery of insulin, is a brilliant example of this process.

During the month of January, 1925, another discovery is to be made available for general use by physicians. Dr. W. F. Lorenz and Dr. A. S. Loevenhart, of the University of Wisconsin Medical School at Madison, felt that a better drug was needed for treatment of certain types of syphilitic disease of the brain and spinal cord. They had been using the usual modern treatment at the Wisconsin Psychiatric Institute, but were anxious to find a cure for the paralysis which comes in the late stages of so many cases of syphilis. With an organized group of young assistants, including chemists and doctors, they set about trying new drugs. One of the drugs prepared by the chemists for the Rockefeller Foundation is known as Tryparsamide, found useful in the treatment of some rare tropical infections. Dr. Lorenz and Dr. Loevenhart foresaw its possible use to them, tried it among the other drugs, and found it remarkably successful. Already over 100 patients who have had this treatment have been released from the hospital, and are able to return to at least some activity. Without this Tryparsamide treatment, they would have been confined for a few years in the hospitals for the insane until death came. In addition to saving the State of Wisconsin some \$500,000 already, this has, of course, made a wonderful contribution to the lives of the men and their families. The work has been carried far enough now that the drug is to be manufactured for sale, and instructions for its use made available to all physicians who desire to use it. Meanwhile, the work is going on at Madison and Mendota to find still better drugs for other forms of the disease. So it is evident that in these ways, and uncounted others, the chemical laboratories are workshops for the creation of gifts of health for humanity.

ADDRESSES ROTARY CLUB

Mr. J. G. Crownhart, Secretary of the State Society, spoke to members of the Marshfield Rotary Club on Monday, February 16th. Mr. Crownhart spoke on public health problems emphasizing the responsibility of the non-medical public.

PUBLIC HEALTH NOTES

FROM THE
STATE BOARD OF HEALTH

In cases where the occupants of a building are required to vacate by the owner, unless it can be proven by the statement of the attending physician that an occupant cannot be removed without seriously endangering the health or life of such persons, it is believed the tenant can be compelled to move as provided by the statutes.

The Board received the resignation of Dr. L. E. Spencer, Wausau, as deputy state health officer for the Third sanitary district, who will enter private business pursuits after ten years' service in the deputyship. Previously he was the state sanitary officer, and before that time had served as a member of the State Board of Health.

It is expected that the owner of so-called heated apartments will heat the building sufficiently that the health and comfort of the occupants will be safeguarded, and that if in case of failure to do so illness results, tenants can obtain damages and should also refuse to pay the rental fees. There is no law or regulation governing the heating of apartment houses.

Notice was received from the Illinois state health department of official rules issued by that state against the sale of oysters to be eaten raw, as a safeguard against typhoid infection. The effect of the regulations is to exact a guarantee by the dealer from the consumer that the oysters will not be eaten in the raw state, and that they will not be served raw in hotels, public eating houses, dining cars, etc. In Wisconsin, State Health Officer C. A. Harper gave a public warning against the consumption of raw oysters but withheld official action looking to regulation of dealers.

A report was asked of a physician who was charged with knowingly permitting a school teacher having measles to go by train to her home. For such action by a physician the statutes prescribe a severe fine.

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ORGANIZED 1841

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LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES

Table with 3 columns: County, President, Secretary. Lists medical societies across Wisconsin counties with their respective officers.

SOCIETY PROCEEDINGS

DANE-UNIVERSITY OF WISCONSIN

A combined meeting of the Dane County Medical Society and the University of Wisconsin Medical Society was held in Science Hall, Madison, February 17. The program consisted of a paper on "Etiology of Encrusted Cystitis" by B. H. Hager, Associate Professor of Surgery; and "Some Problems in Neuro-Surgery" by A. S. Crawford, Associate Professor of Surgery.

EAU CLAIRE AND ASSOCIATED

The Eau Claire and Associated Counties Medical Society elected the following new officers for the ensuing year at a recent meeting: President, G. W. Beebe, Eau Claire; Vice-President, J. E. B. Ziegler, Eau Claire; Secretary-Treasurer, H. M. Stang, Eau Claire; Delegates, J. C. Baird, Eau Claire, and F. E. Butler, Menomonie; Alternate, H. M. Stang, Eau Claire.

FOND DU LAC

At the annual election of officers of the Fond du Lac County Medical Society, M. M. Schied, Rosendale, was elected president; J. E. Twohig, Fond du Lac, vice-president; D. N. Walters, Fond du Lac, secretary-treasurer; E. V. Smith, Fond du Lac, censor; S. E. Gavis, Fond du Lac, alternate.

The regular monthly meeting was held at the Hotel Retlaw at 6:30 p. m., February 11th. Dinner was served to about thirty members. Following a short business meeting, Dr. T. Szlapka of Milwaukee gave a talk on "Pernicious Anemia, Its Diagnosis and Treatment."

KENOSHA

The members of the Kenosha County Medical Society extended an invitation to the members of the city council of Kenosha to meet with them on February 4 to discuss questions of mutual interest to the physicians and to the city. The purpose of the conference was to plan to carry out the better development and cooperation of the various lines of work done by these bodies.

MILWAUKEE

Members of the Milwaukee County Medical Society met at Hotel Pfister on February 13. "The Lay Educational Program of the State Medical Society" was discussed by Mr. J. G. Crownhart, Secretary of the State Society. Dr. Douglas Singer, Chicago, spoke on "Crime and Punishment."

ONEIDA-Forest-VILAS

The regular meetings of the Oneida-Forest-Vilas County Medical Society will be held the first Tuesday of each month at St. Mary's Hospital at Rhinelander. Members of the society and visiting members will always be welcomed at these meetings. Dr. I. E. Schiek is secretary-treasurer of the Oneida-Forest-Vilas Society.

OUTAGAMIE

The January meeting of the Outagamie County Medical Society was held at the Hotel Northern, Apple-

ton, on January 15 at 6:30 P. M. The doctors' wives had been invited and the dinner was well attended. After the business meeting Dr. John R. Minahan, Green Bay, spoke on "The Medical Profession."

The following members were present: Drs. Brooks, Boyd, Brunckhorst, Bolton, Cooney, Dohearty, Frawley, Flanagan, Gallaher, Laird, Mitchell, Mills, Moore, Morse, Neidhold, Rector, Ritchie, Ryan, Sandborn, Shepard, Towne, and Fuller of Green Bay.

OUTAGAMIE-WINNEBAGO

A joint meeting of the Outagamie and Winnebago County Medical Societies was held on February 10 at Hotel Northern. Dr. G. W. Carlson read a paper on "Is Hypertension Primary?"

RACINE

The regular meeting of the Racine County Medical Society was held on February 20 at St. Mary's Hospital, Racine. Dr. Hoyt E. Dearholt, Milwaukee, gave an address on the subject of "Anti-Tuberculosis in the State of Wisconsin." The meeting was well attended.

ROCK

The Rock County Medical Society met at the Grand Hotel, Janesville, on January 27. Dr. H. E. Marsh of the Jackson Clinic, Madison, spoke on "The Prophylaxis and Treatment of Scarlet Fever by Means of a New Serum."

SAUK

A meeting of the Sauk County Medical Society was held at the Warren hotel on January 29. Following a dinner Dr. C. A. Hedblom and Dr. R. C. Buerki of Madison spoke on the relation of the university clinic to doctors and the people of the state.

SHEBOYGAN

The Sheboygan County Medical Society held its first regular meeting of the year at the City Hall, Sheboygan, on February 5. Dr. W. M. Sonnenburg read an interesting paper on "The Place of Radium in the Treatment of Disease." The paper was discussed by Drs. Curl, Fiedler, Ford, Stannard and Sonnenburg.

The following members were present: Drs. O. B. Bock, F. A. Nause, Jr., J. C. Elfers, G. J. Hildebrand, W. M. Sonnenburg, O. A. Fiedler, F. Eigenberger, Wm. Van Zanten, T. J. Gunther, O. T. Gunther, W. H. Gunther, W. A. Ford, Wm. Neumann, G. H. Stannard, H. A. Heiden and Howard Curl.

MILWAUKEE ACADEMY OF MEDICINE

The Milwaukee Academy of Medicine held a meeting and January 27. Papers were read by Dr. Ralph Kaysen on "Industrial Surgery;" Dr. Ernest Miller on "The Industrial Surgeon;" and Dr. Herbert Powers on "The Psychology of Industrial Surgery."

A complimentary dinner to the Milwaukee Academy of Medicine was given by the United States Veterans' Bureau, Milwaukee; the National Military Hospital, Milwaukee; and the U. S. Hospital No. 37, Waukesha, at the Amphitheatre, National Military Hospital, Milwaukee, on February 10. Col. Charles M. Pearsall gave

the address of welcome followed by the scientific program including the speakers: Drs. Albert J. Oehsner, Solomon Strouse, Carl A. Hedblom, Edwin Kehoe, Addison Dorr, Eugene L. Dallwig, Fred Gaenslen, John O. Dieterle and Reginald Jackson.

MILWAUKEE ACADEMY OF MEDICINE

The February meeting was held on the 24th at the Public Library Auditorium. It was a joint meeting with the Radiological Society. Dr. Emil Beck, Chicago, spoke on "Surgery of the Stomach;" Dr. Louis F. Jermain on "Reflex Functional Disturbances of the Stomach;" and Dr. Louis G. Cole, Cornell University Medical School, New York, on "Complex Motor Phenomena of the Stomach and Duodenum."

NEURO-PSYCHIATRIC

The regular meeting of the Neuro-Psychiatric Society was held at the library of the Milwaukee Academy of Medicine on January 22nd. Dr. Herbert Powers spoke on "An Unusual Case of Multiple Neuritis" and Dr. Hans H. Reese, Mendota, on "Treatment of General Paralysis With Malaria."

NEWS ITEMS AND PERSONALS

Dr. and Mrs. G. H. McCallister left recently for Los Angeles where they expect to stay the rest of the winter.

Dr. S. W. Forbush, formerly of Orfordville but now of Beloit, has accepted an offer to join the staff of the Illinois State Eye, Ear, and Throat Hospital in Chicago.

Dr. M. M. Bueh, police surgeon, was appointed a member of the board of trustees of Emergency hospital by Mayor Hoan of Milwaukee. He succeeds Dr. A. B. Baer, resigned.

Dr. and Mrs. W. H. MacDonald, Lake Geneva, are now in Pasadena, Calif., where they will remain until April 1st.

Dr. Francis P. Quinn has been named house physician at Emergency hospital for three months to replace Dr. R. D. Cunningham who was granted a three months' leave of absence to go to his home in Cadott, Wis., to take over the practice of his father, Dr. R. B. Cunningham, who has been forced to leave for Florida for his health.

Dr. Otho Fiedler, Sheboygan, was elected president of the State Board of Health recently to succeed Dr. William F. Whyte, Watertown, president of that organization for the past twenty years.

Dr. W. T. Lindsay and Dr. C. O. Vingom, Madison physicians and surgeons, have recently announced the formation of a partnership with offices on the second floor of the Washington Building.

Dr. R. F. Teschan, Milwaukee, was re-elected presi-

dent of the board of trustees of the Emergency hospital at the annual meeting January 22nd.

Officers of the Bellin Memorial hospital, Green Bay, were re-elected at the annual meeting of the board of directors and board of managers held on January 20th. Dr. Julius J. Bellin was re-elected president of the institution.

Dr. W. F. Lorenz, head of the State Board of Control, has returned to Madison after experiencing a shipwreck on the famous Allecran reef, followed by arrest and five days in a Mexican prison.

Dr. Francis B. McMahon has recently announced the removal of his office to 1213 Wells Building, Milwaukee.

Dr. D. R. Connell, founder of the Beloit General hospital, has found it necessary to withdraw from the General Hospital Association and the institution has been taken over by a group of physicians who will conduct it through a board of managers.

Because of the new facilities which the state of Wisconsin has afforded in the new Wisconsin General Hospital for the treatment of crippled children and indigent cases from all over the state, the Milwaukee Medical Society sent a score of its members to Madison recently for an inspection of the institution.

Dr. Merle R. French, Milwaukee, medical superintendent of contagious diseases of the city health department, was struck over the head February 14th by a bandit who held him up as he was putting his automobile in a garage.

Dr. John P. Koehler, head of the Milwaukee County Dispensary and former deputy city health commissioner, was appointed commissioner of health of the city of Milwaukee.

Doctor Koehler succeeds Dr. George C. Ruhland, resigned.

Dr. W. F. Whyte, Madison, who with Mrs. Whyte left shortly for a stay in Washington, D. C., has been detained by illness in a Washington hospital. His condition indicates that he will be able to continue his journey after a rest and he plans to return to his home in May.

Dr. and Mrs. S. Berglund, Marinette, are planning to join the 300 American physicians and surgeons on the clinical tour of Europe. They will sail about the middle of May.

Dr. J. Fletcher Robinson, Eau Claire, has recently severed his connection with the Lyman clinic. The doctor and his family are now at Mussoori, United Provinces, India, where he will continue his practice.

Dr. T. L. Harrington, Milwaukee, of the medical department of the Wisconsin Anti-Tuberculosis Association was a speaker on the program at the Twentieth Century banquet held at Fond du Lac February 19.

Dr. R. B. Cunningham of Cadott is spending the winter

in Cuba in an effort to regain his health. During the absence of the doctor his son, Dr. Robert D. Cunningham of Milwaukee will take over his practice.

Dr. J. C. Colignon, Green Bay, will begin the practice of medicine and surgery as an associate of Dr. R. C. Buchanan, Bellin Building. Dr. Colignon studied at Marquette and Minnesota Universities and passed the Wisconsin State Board examination in January.

Declaring that Resthaven, the United States Veterans' Bureau neuro-psychiatric hospital at Waukesha, is handicapped in treatment of patients because of lack of medical personnel, James F. Burns, state service officer of the American Legion has started action to increase the present force by three more physicians.

A number of Wisconsin physicians have been appointed to serve on the governing committee of the Gorgas Memorial Institute of which President Coolidge is a titular head. We have a report of the following doctors having been appointed: Emile G. Nadeau, Green Bay; Anders G. Hovde, Superior; Thomàs J. O'Leary, Superior; Nelson M. Black, Milwaukee; Murdock F. MacRae, Milwaukee; Phillip F. Rogers, Milwaukee; H. T. Kristjanson, Milwaukee; Henry B. Hitz, Milwaukee; Ernest Copeland, Milwaukee; Vernon A. Chapman, Milwaukee, and Joseph F. Smith, Wausau.

SOCIETY RECORDS

NEW MEMBERS

Frenzel, W. C., Wausau.
Satter, O. E., Prairie du Chien.
Comstock, Elizabeth, Arcadia.
Rauch, W. A. Valders.
Smith, C. M., Jr., Evansville.

CHANGES IN ADDRESS

Boyer, E. R., Rhinelander—Glenwood City.
Pederson, A. M., Scandinavia—118 No. Main St., Waupaca.
Curtin, J. J., West De Pere—1049 27th St., Milwaukee.
Lehnkering, C. F., 3719 Pacific Ave., San Pedro, Calif.
—Hampton Apt., Ocean Ave., Long Beach, Calif.
Bernhardt, E. L., Viroqua—Westby.

DEATHS

Dr. Egbert E. Loomis, Janesville, died at the Mercy Hospital January 22. He practiced at Janesville for 51 years and was a graduate of Northwestern University Medical School in 1873. Before his retirement from active practice Dr. Loomis was a member of the Rock County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

Dr. Jacob Wolff, Milwaukee, died January 21. Dr. Wolff practiced in Milwaukee continually from 1885 until his retirement ten years ago. He is survived by his wife, two sons and four daughters.

Dr. Elsie R. Schmitz, aged 69, died at her home in Green Forest, Ark., on February 3. Death was due to apoplexy. Dr. Schmitz was a resident of Milton, Wis., for about fifteen years previous to going to Green Forest, Ark.

Dr. C. J. Wilson, Winchester, died at his home on January 29 after a lingering illness. He is survived by a wife and a son and daughter. Dr. Wilson was a member of the Marinette-Florence County Medical Society, the State Medical Society and the American Medical Association.

Dr. Thos. W. Ashley, River Falls, died of pernicious anemia at his home on January 23. Dr. Ashley was 72 years of age and had been in failing health for some years. After graduating from the Hahnemann Medical College, Chicago, in 1884, he practiced in Hammond for one year, coming to River Falls in 1886 where he practiced continuously since that time. He is survived by his wife and their son, Atty. Lynn H. Ashley. The doctor was at one time a member of the Pierce County Medical Society.

CORRESPONDENCE

January 20, 1925.

Mr. J. G. Crownhart, Exec. Sec'y.,
State Medical Society of Wisconsin,
558 Jefferson Street,
Milwaukee, Wisconsin.
Dear Mr. Crownhart:

I have just received the copy of your second annual lay number for which I thank you. I have not had a chance to go over it in detail, but in glancing through this issue it shows that you have given considerable time and attention in preparing the material presented.

The cover is especially appealing and shows up very well in colors. The back-page cover advertising HYGELA is very much appreciated. A record will be kept of the orders received, and your office will be advised later of the results.

It might interest you to know that in my annual report I am calling special attention to the increase in HYGELA circulation in Wisconsin. The following is quoted from my report:

"There were 39 states that showed a gain in circulation. Wisconsin leads the list. The 1923 report shows this state to have 464; in 1924, 1226, a gain of 762 subscribers, most of which were laymen."

Let me know when you are in Chicago again just what comments are made by the readers of this issue.

With best wishes, we are

Very truly yours,

AMERICAN MEDICAL ASSOCIATION,

F. V. CARGILL,

TW

Circulation Manager, HYGELA.

THE ATLANTIC CITY SESSION

The rate of one and one-half fare for the benefit of members and Fellows of the American Medical Association who will attend the annual session in Atlantic City, May 25-29, has been granted by the railroads. The member, when purchasing his ticket, pays the full one way fare to Atlantic City, at the same time securing his certificate from the railroad agent. This certificate will be approved at Atlantic City by the Secretary of the Association, must be validated by a representative of the railroads, and will then entitle the holder to a return ticket at one-half fare. The validation desk will be located near the Registration Bureau on the Steel Pier.—*Jour. A. M. A., Feb. 14, 1925.*

Moul-Boldt Basic Science Measure Advanced in Legislature: Many Measures Affecting Physicians Introduced

This article was written on March 1st. Changes in the status of measures reported here will be found in the Legislative Bulletins sent by the Society to all members.—*Editor's Note.*

Advancement of the Moul-Boldt basic science bill featured the legislative action during February. These identical bills (in the Assembly—27A; in the Senate 58-S) have now received favorable reports from both Assembly and Senate committees on Public Welfare. In the Assembly 27-A has been advanced by a vote of the entire house. Both bills are now before the Joint Committee on Finance where they will have a hearing about the middle of March.

Following this hearing Bill 27-A will be up for a vote on final passage in the Assembly after which the Senate will pass on the measure.

CHIROPRACTIC BILL INTRODUCED.

Assemblyman Ethan Minier, New Richmond, has introduced Bill 322-A. This bill is fostered by the Wisconsin Chiropractic Association and in its present form is so worded as to be complementary to the Basic Science Bills 27-A and 58-S. This bill 322-A provides:

provides:

1. Repeal of the present chiropractic exemption clause.
2. Establishment of a state board of chiropractic examiners of three chiropractors.
3. Preliminary qualifications for examinations are *a certificate of registration in the basic sciences* (as provided in either Bill 27-A or 58-S), high school education, graduation from a reputable school of chiropractic giving not less than a three-year course of at least 4,000 thirty-minute class hours, and a fee of \$25. Applicants then examined in subjects usually taught in reputable schools of chiropractic.

4. Successful applicants to be licensed to practice chiropractic which is defined as "the adjustment by hand, of the articulations of the human vertebral column, and the accessory articulations thereof."

5. Annual re-registration of licensees of the board at a fee of five dollars.

6. Licensing without examination all who were lawfully practicing in this state on February 1,

1925. (This is the exemption of prior practitioners which is also found in the Basic Science bills.)

7. Maintains the present law which provides that only those licensed to practice medicine, osteopathy or surgery can use the title "Doctor" or any of its abbreviations. Chiropractors are included with those who cannot use the title "Doctor" at the present time. This section in their bill is simply to make certain that there is no change in that respect.

Your Committee on Public Policy and Legislation does not feel called upon to oppose this bill so long as it remains in its present form and none other, and so long as it is not handled ahead of the Basic Science Bill. This bill will be referred to the Committee on Public Welfare of the Assembly where it will have a hearing in the near future.

PHARMACY BILL.

The Wisconsin Pharmaceutical Association has introduced identical bills which extends materially the scope of the present laws pertaining to pharmacy. In the Senate this bill is known as 187-S and in the Assembly is 279-A. At a hearing on the Senate bill the bill met with strong opposition from the wholesale grocers and representatives of the "patent medicine" houses. As result a substitute amendment is being drafted which will incorporate a revision that is acceptable to the proponents and opposition.

Under the terms of the original bill only a registered pharmacist might own a pharmacy and physicians were further restricted by a clause that declared that they might dispense only in person to bona fide patients for the patients' immediate needs. This restriction, it was agreed, will not appear in the substitute measure. Instead physicians will be granted a straight exemption.

J. G. Crownhart, Secretary of the State Society, explained that while physicians are not looking forward to extending their work to the field of pharmacy, conditions exist that sometimes make it essential that a physician own a pharmacy or at least dispense to others than bona fide patients. Members are advised to watch the legislative bulletins for further information on this bill.

DEFEAT EUGENICS BILL.

A bill to extend the present eugenics law to women as well as men and to include active tuber-

culosis as a cause for not granting a marriage license met defeat in the Assembly on February 26th by a vote of 66 to 29. The Assembly previous to killing the bill refused to accept amendments providing that chiropractors might conduct the examinations (by Mr. Minier) and one that osteopaths might conduct examinations (by Miss Thompson). The roll call on the bill follows:

To kill the Barber eugenics bill: Shearer, Slack, Smith, A. E., Smith, H. H., Sonnemann, Staab, Thompson, J. C., Trembath, Tuffley, Vincent, Weber, Wood, Zittlow, Sachtjen, Moseley, Mueller, Naumann, Perry, Prescott, Price, Raihle, Royce, Ruffing, Saugen, Schmidt, Schultz, Kamper, Kersten, Kiesner, Koenigs, M., Laffey, Larson, J. L., Lawson, Leicht, Meggers, Mentink, Millar, Miller, Minier, Engel, Frederick, Fredrich, Glass, Goodman, Hall, Halverson, Hanson, Hilker, Hinkley, Hoffman, Huckstead, Hutchison, Ingalls, Jensen, Blanchard, Brooks, Busse, Cieszynski, Cody, Coleman, Conway, Davies, Dettinger, Dorwin, Eber, Edwards.

To pass the bill: Swanson, Thompson, H. F., Thorp, Walsh, Warden, Moul, Olsen, O. C., Olson, W., Pahl, Sellers, Johnson, E. H., Johnson, R. B., Carl Koenig, Krause, McDowell, Mathiowetz, Geraldson, Grimstad, Gwidt, Hillmann, Holly, Barber, Beversdorf, Caldwell, Cushman, Dieringer, Diring, Duncan, Ellenbecker.

Paired: Nels Larsen for the bill; Stokes against the bill.

Absent and not voting: George Nelson and James Peterson.

"OPEN HOSPITALS" ASKED.

Representatives of the Wisconsin Osteopathic Association appeared before the Assembly Committee on Taxation on February 25th to urge an amendment to the Price hospital taxation exemption bill to provide that only "open hospitals"

would be eligible to such exemption. Drs. E. Elton, Milwaukee, and E. McCormick, Sheboygan, appeared for the Osteopathic Association.

The Price bill provides for the exemption from taxation for the property of all hospitals. It is aimed to exempt specifically the 39 small private hospital in the state. The committee refused to recommend the proposed osteopathic amendment.

Senator Boldt, Sheboygan, has introduced Bill 246-S (by request) which provides that before a corpse may be sent to any undertaker or embalmer, institutional officers or a physician shall first ascertain from relatives of the deceased "direction as to the disposal of such corpse."

A second bill by Senator Boldt, Bill 248-S, provides that feeble minded persons shall be ineligible to contract marriage. Feeble-mindedness is defined as one "who is so mentally defective as to be incapable of managing himself and his affairs, and to require supervision, control and care for his own or the public welfare."

It is understood that two bills will soon be printed and submitted to raise the standards for practice of chiropodists and a second for the practice of optometry.

During February representatives of the State Society made eight appearances before committees of the legislature, twice upon request of the committee. In addition several members of both houses of the legislature have referred to the representatives of the Society for information bearing upon public health measures introduced or about to be introduced.

Second Annual Lay Issue Finds Favor with Non-Medical Public in All Parts of Wisconsin

With the Second Annual Lay Issue of the Journal distributed, letters received from many portions of the state indicate that this issue has been of very real interest. Press clippings show that many editors took advantage of the Issue to quote in the press from articles that had a local interest.

That the members as a whole may know what the public thinks of this means of lay educational work, we quote from some of the letters received:

"I was most interested in your Annual Lay Issue. Such an issue, pointing out what has been accomplished and that which may be had in the field of public health, serves as an inspiration to us all."—Mrs. John J. Blaine, Executive Mansion, Madison.

"It is a fine publication and I am more than pleased to be remembered with a copy. I find much of interest, particularly the editorials. 'After Voting—What?' had an especial appeal to myself. Let the good work go on."—W. B. Chilsen, publisher, The Merrill Herald, Merrill.

"I am grateful for the January number of the Wisconsin Medical Journal and have read it from cover to cover."—E. J. Fitzpatrick, Principal, Waushara County Normal School, Wautoma.

"Please send us fifteen copies of your Second Annual Lay Issue, The Wisconsin Medical Journal, for use in this school."—H. S. Hemenway, Superintendent, Waupun City Schools, Waupun.

"I saw the poster on vaccination in the Second

Annual Lay Issue of your Journal and I would like to ask where these may be ordered."—Miss Florence Wittlaufer, School Nurse, Janesville.

"I thank you sincerely for mailing me a copy of the last issue of the Wisconsin Medical Journal and congratulate you heartily on the excellent appearance and the valuable information contained therein. Will you be good enough to place the following names on your mailing list for future issues."—H. J. Hagge, Secretary and General Manager, Employers Mutual Liability Insurance Company, Wausau.

"The Lay number is about the most popular piece of reading material that has come this way in a long time."—Dr. C. M. Gleason, Manitowoc.

"The Wisconsin Medical Journal published a lay issue in January. The number is a work of art and the material was well selected. The number could be favorably compared with Hygeia. The idea of a lay number of a state medical journal is somewhat appealing."—Editorial, Nebraska State Medical Journal.

"It seems to us that this is a step in the right direction toward the proper education of the laity."—Adams County Medical Society, Illinois.

"Using language common folks can understand, the Wisconsin Medical Journal has just sent out what it calls its 'second annual lay issue'—a very interesting number. One of the things that caught our eye was this paragraph as to smallpox: (the lay issue is then quoted for six hundred words). Innumerable other statistics attest to the great value of vaccination. There is but one word to remember in the prevention of smallpox, and that is, 'vaccination.'"—H. L. Hoard, writing editorially in the Jefferson County Union, Fort Atkinson.

"I want to congratulate you on the lay journal. It sure is the best ever. I think we ought to get out one every six months and supply a copy to every family in the state."—Dr. L. A. Hoffmier, Superior.

"Your second annual lay issue of the Wisconsin Medical Journal has just come to hand. I congratulate you on it." Dr. W. C. Woodward, Executive Secretary, Bureau of Legal Medicine and Legislation, American Medical Association.

"We have received your annual laymen's edition of the Journal and have read it with much interest. Can we reprint from it?"—H. P. Thompson, editor, Pardeeville-Wyocena Times.

"We thank you for the copy of your splendid magazine. Can we obtain the cut to go with the ——— article?"—Exhilda H. White, editor, The Waterloo Courier, Waterloo.

"Will you please send me as many copies of the Lay Issue as you can spare. We want them for use at the State Normal School."—Dr. C. A. Dawson, River Falls.

"I wish to acknowledge receipt of the Second Annual Lay Issue of the Wisconsin Medical Journal for which I thank you."—John A. Kuypers, President Wisconsin Press Association, DePere Journal-Democrat, DePere.

"I have looked over the January number and find it extremely valuable for high school pupils. I trust you have sent a copy to every high school in the state."—J. T. Giles, State High School Supervisor, State Capitol, Madison.

"May I please have an extra copy of the Lay Issue."—Harry Steffen, Principal, Lily, Wisconsin.

The above comments are quoted from some of the unsolicited letters received that our members may know the sentiment on this part of the lay educational program of the Society.

IT PAYS TO BELONG

"Members of the State Medical Society of Wisconsin will not have their applications for federal permits questioned," declared Federal Prohibition Director, Ray J. Nye, in announcing a new check to be made this year.

"This department will check very carefully on all permit applications to make sure that none are granted except to licensed physicians. We are glad to accept the membership list of the State Medical Society as such evidence. In other cases we may require some proof to be submitted."

DR. W. A. EVANS SPEAKS AT CAPITOL

Dr. W. A. Evans, Health Editor of the Chicago Tribune, spoke in the Assembly Chamber of the State Capital on Tuesday evening, February 17th. "Does Public Health Work Pay" was the subject of the address given under the auspices of the State Board of Health and the State Medical Society of Wisconsin.

Dr. Evans was introduced by Dr. C. A. Harper, State Health Officer. Following the address, members of the Legislature kept Dr. Evans answering questions on various phases of the health problem for over an hour.

Fifty-five Licensed to Practice in Wisconsin as a Result of January Meeting of State Board of Medical Examiners

At the recent meeting of the State Board of Medical Examiners held at Madison, January 13, 14 and 15, there were 59 applicants for license, 55 of whom were acted upon favorably. Of this number:

- 19 were applicants for license by reciprocity. (See detailed report for names and reciprocating states.)
- 39 were applicants for license by examination, of which number
 - 4 were refused on account of graduation from Class C. Schools;
 - 7 were conditions from the June examination.
- 31 were physicians, 4 were osteopaths.
 - 1 was an applicant for license by exchange of Certificate of Registration for the regular license.

Of the 27 physicians writing the whole examination in January:

- 7 were from Germany,
- 1 was from Hungary, and
- 4 were from Canada.

There were also 2 foreigners licensed by reciprocity.

The board made several new rulings all tending to make our requirements such as to give Wisconsin only those best qualified to practice. Accordingly:

Hereafter, a year's internship will *not* suffice as the equivalent of a year of active practice for those applicants wishing to reciprocate.

Applicants wishing to reciprocate are recommended to appear in person, as this gives the board a better opportunity to judge their qualifications and fitness to practice.

The board will require a certified certificate

of an applicant's pre-medic work as well as his High School and Medical Course.

The board also recommends the acceptance of a National Board licentiate, provided the Legislature will amend the present law permitting us to accept same.

The board reserves the right to waive certain restrictions affecting applications for reciprocity when individual merit such as extensive internship, special scientific research or advanced post-graduate work has been done.

The practicals were held this year in the new State of Wisconsin General Hospital and were in charge of Professor Joseph S. Evans of the Medical Department of the University of Wisconsin. Each applicant was given an individual case for physical diagnosis and his laboratory work consisted of urinalysis, haematology, sputum analysis, bacteriology and pathology. The board feels very grateful to Dr. J. S. Evans and his assistants, Doctors Middleton, Stovall and Van Valzah, for the able and thorough-going manner in which these examinations were conducted. The practicals next June will be in charge of the faculty members of Marquette University at Milwaukee.

Practically all the men who took the examination this year were from Class A schools with from 2-4 years' hospital work which accounts for the high averages obtained. The board would heartily recommend any of these men for membership in our State Medical Society.

The board chose their president, Dr. J. Gurney Taylor of Milwaukee to represent them at the conferences of the Council on Medical Education, Federation of State Medical Boards and the Association of American Medical Colleges to be held at Chicago early in March.

REPORT OF EXAMINATION FOR LICENSES IN WISCONSIN

LICENSE BY EXAMINATION

Aussendorf, Carl F.	U. of Minn.	1707 18th St., Milwaukee.
Bonacci, Michael J.	St. Louis U.	2301 So. Kingsbyway, St. Louis.
Bradley, Everett L.	Geo. Wash. U., D. C.	Y. M. C. A., Superior.
Colignon, James C.	U. of Minn.	730 So. Jackson St., Green Bay.
Connell, John Wm.	Washington U., St. Louis.	Fond du Lac Clinic, Fond du Lac.
Dominic, Anthony Z.	Temple U., Philadelphia.	Psychiatric Inst., Mendota.
Elliot, Spencer G.	McGill U., Montreal.	Wis. General Hosp., Madison.
Evans, James A.	Harvard.	951 Cass St., La Crosse.
Gatterdam, Paul C.	Washington U., St. Louis.	Lutheran Hosp., La Crosse.
Gehring, Carl A.	U. of Tubingen, Germany.	Grandview Hosp., La Crosse.
Hannen, Paul H.	U. of Bonn, Germany.	Methodist Hosp., Gary, Ind.

Henske, Wm. C.	St. Louis U.	713 Metropolitan Bldg., St. Louis.
Johnson, Hobart W.	McGill U., Montreal.	167 17th St., Milwaukee.
Ketels, Christian F. B.	U. of Hamburg	407 Ins. Bldg., Appleton.
Kovaes, Arthur	U. of Budapest	Carrollsville.
Liebeler, Wilbert A.	U. of Illinois	167 17th St., Milwaukee.
McGarty, Michael E.	Harvard.	Wis. General Hosp., Madison.
McGarty, Lester	Tulone U.	Wis. General Hosp., Madison.
Patterson, Francis R. C.	U. of Toronto	1814 E. 30th St., Lorain, Ohio.
Pfefferkorn, Ethan B.	Washington U.	Mt. Sinai Hosp., Milwaukee.
Reese, Hans H. F.	U. of Kiel, Germany	Psychiatric Inst., Mendota.
Schlomovitz, Elias H.	Washington U.	415 Galena St., Milwaukee.
Seiler, Elizabeth S.	U. of Muenchen	748 20th St., Milwaukee.
Slemmons, Theodore M.	U. of Nebraska	State Hospital, Mendota.
Sweet, Arthur H.	McGill U., Montreal.	929 Maryland Ave., Milwaukee.
Warschauer, Bruno	U. of Breslau	Riverside Sanitarium, Milwaukee.
Whelan, Ann	U. of Pennsylvania	Mondovi.
Wise, Hugh Pierson, D. O.	A. T. Still Coll. of Osteo. & Surg.	502 Stewart Bldg., Rockford, Ill.

CONTINUED FROM JUNE WHO NOW PASSED

Alvarez, Ricardo L.	Marquette	St. Francis Hosp., Peoria, Ill.
Brasier, Elwyn F., D. O.	Des Moines Still Coll. of Osteo.	328 State St., La Crosse.
Doyle, Chauncey J.	Marquette	428 Cass St., Milwaukee.
Hyslop, Volney B.	Washington U.	Wis. General Hosp., Madison.
Levin, Alexander	General Med. Coll.	422 So. Webster Ave., Green Bay.
Shorb, Flora Nelle, D. O.	American Sc. of Osteo.	221 Goodwin Block, Beloit.
Heggen, Anfin S., D. O.	S. S. Still Coll. of Osteo.	Washington Bldg., Madison.

(Heggen, for license in just surgery.)

LICENSED BY RECIPROCIITY

Bixby, David E.	Ohio	Eclectic Med., Cincinnati	Cleveland State Hosp., Cleveland.
Bolstad, Hamilton A.	Iowa	U. of Iowa	Boyd, Iowa.
Bowes, John Jos.	Iowa	Drake U., Iowa	Livermore, Iowa.
Crawford, Albert S.	Cal.	Cornell	U. of Wis. Med. Dept., Madison.
Griffin, Wade E.	La.	Meharry	3539 So. State St., Chicago.
Jaekson, Sydney C.	Col.	U. of Colorado	Jackson Clinic, Madison.
Lippman, Morris C.	N. Y.	U. of Frankfort	Hudson River State Hospital, Poughkeepsie, New York.
Lowe, Chas. R.	Mich.	U. of Michigan	Dixon State Hosp., Dixon, Ill.
Lussman, Franz J.	Col.	U. of Frankfort	J. C. R. S. Sanitarium, Denver, Col.
Pfaff, Earl K.	Ind.	Purdue U.	Shoals, Ind.
Rosin, Clifton M.	Ill.	Bennett	393 7th Ave., New York City.
Turney, Cyril F.	Tenn.	Meharry	Americus, Georgia.

Licensed by reciprocity, but because they come from a state that requires our men to take their practical, we required these men to submit to our practical besides the regular reciprocity blank.

Boner, Albert Jay	Ill.	U. of Illinois	Psychiatric Inst., Mendota.
Prentice, John Watson	Minn.	U. of Minnesota	Ashland.
Dorszeski, Edwin F.	Ill.	Chi. Coll. Med. & Surg.	Antigo.
Pickard, Edwin Wilson	Ill.	Loyola	R. R. No. 6, Green Bay.
Rickard, Elsmere Rife	Ill.	Northwestern	Elkhorn.
Shaffer, Earl Wm.	Ill.	Rush	4942 N. Winchester Ave., Chicago.
Steckbauer, Jos. Wm.	Ill.	Rush	St. Louis City Hosp., St. Louis.

LICENSE BY EXCHANGE OF CERTIFICATE OF REGISTRATION FOR REGULAR LICENSE NOW IN USE

Barber, Jos. L.	Practice prior 1897	Marathon.
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Four men were refused licenses by examination because they were from Class C Schools, 2 were from Chicago Medical College and 2 were from St. Louis College of Physicians and Surgeons.

SUMMARY

35 Were licensed by examination. Of these

31 were M. D.'s of which number 4 were conditions from June.

4 were D. O.'s of which number 2 were conditions from June.

Of the other two D. O.'s, 1 was writing the whole examination for license in Osteopathy & Surgery, the other I was writing for license in just Surgery, already having his license in just Osteopathy some years ago.

19 Were licensed by reciprocity. Of these

- 19 were M. D.'s of which number 7 were required to take the practical.
 1 Was licensed by exchange of Certificate of Registration.
 55 Were licensed in all.

HIGH GRADES

James A. Evans, La Crosse.....	91.68
E. H. Schlomovitz, Milwaukee.....	91.22
J. C. Colignon, Green Bay.....	90.55
Ann Whelan, Mondovi.....	90.11
M. J. Bonacci, St. Louis.....	90.00

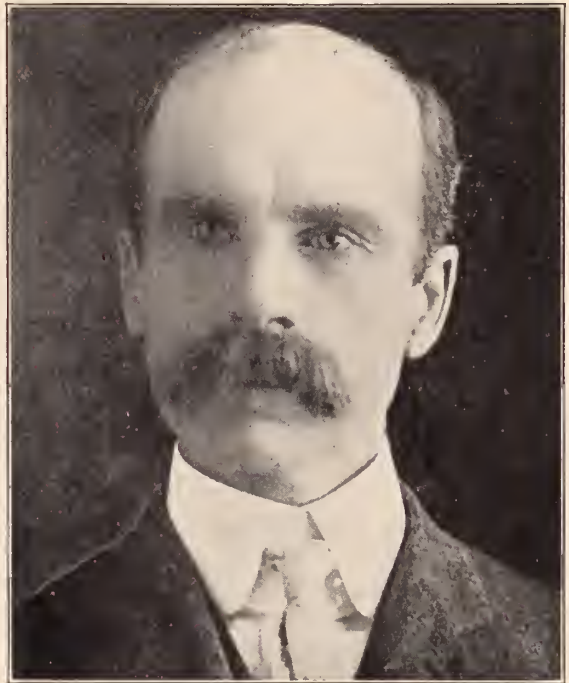
Wisconsin's First Sanatorium Established in Douglas County Twenty Years Ago
 BY W. WHITE

WISCONSIN ANTI-TUBERCULOSIS ASSOCIATION

In a personal conversation, held sometime ago, with Dr. Fred Johnson, of Iron River, the subject of the first sanatorium in Wisconsin was called to our attention. As has been intimated in the article, Dr. Hopkins was entirely engrossed in this project. It represented to him the ideal of a lifetime. Hence, after its failure—and it apparently failed only because of its prematurity as regards public opinion and its lack of funds—he could seldom be prevailed upon to mention the subject.

This project has considerable historical interest and since, to our regret, it has not been accorded its proper place in sketches of similar nature prepared by this office, we feel it our duty to collect such materials as relates to it.

Should, then, this article come to the attention of any physicians—we are already indebted to Dr. Johnson of Iron River and Mr. Ralph Hopkins of Cumberland for such information as we possess—who had direct or indirect contact with this institution; we should appreciate it if they will communicate with us.—A. White.



The late Dr. William B. Hopkins who established the first sanatorium in Wisconsin.

Do you like dusty relics, old letters, or dog-eared volumes? Then you may enjoy paging through this old case book.

It belonged to Dr. William B. Hopkins, so the fly leaf says, and was used at Evergreen Park, Wisconsin's first sanatorium for the tuberculous about twenty years ago.

The first page is blank save for the heading—it is written in a physician's careless style—which reads: "The Clinical Record of Patients at Evergreen Park—Summer of 1904-'05." Then in pencil is added, "Medicine used, the complete records are kept on the clinical charts."

After this follow a series of pictures. Glancing them over one sees that the sanatorium buildings were frame cottages built in a beautiful pine grove upon the shores of a lake. In addition to

these buildings—they were three in number, one for men, one for women, and a third to serve as a dining hall and cook shanty—is a tent. This, according to Dr. Johnson of Iron River, who worked with Dr. Hopkins, was set up in 1904 for a Milwaukee woman who came after the buildings were filled.

The cottages themselves were one story high. An accompanying diagram shows them to have been twenty feet square and open upon all save the north side which was boarded up. The other three sides were screened, then canvas curtains of the type used to divide the cottage into four rooms dropped in front of the walls. Thus the maximum of fresh air and sunshine was secured.

These cottages, in addition to a small log cabin

which served as the dispensary and the doctor's quarters, were the sanatorium as it looked in 1903, just three years after the purchase by Dr. Hopkins of 120 acres of land upon the shores of Lake Nebagamon, Douglas County, Wisconsin.

The idea of a sanatorium for the tuberculous was, of course, conceived long before this date. In 1899, just after having finished a post-graduate course at Rush Medical, Chicago, Dr. Hopkins had taken a two-year trip East making, at that time, a detailed study of the methods of Trudeau at Saranac Lake, N. Y., and Bowditch at Boston.

The information obtained and his own conclusions drawn from such information, Dr. Hopkins sets forth in an article published in a St. Paul Medical Journal of January, 1903, six months before he started his own project.

These are the concluding paragraphs of that paper:

"Deductions:

"The Great White Plague' destroys its millions annually, and its victims are cut down in the very prime of life, very largely between the ages of 20 to 40 years.

"The plague is curable beyond a doubt in the incipient stages, and the percentage of cures is in direct ratio to the stage of advancement.

"The most essential and the most effective treatment for the prevention and cure of consumption is the strict observance of nature's hygienic laws, and in many cases the environment is such that they can only be carried out in some institution for that purpose. Hygiene first; climate, altitude and drugs while they are not to be undervalued, must be classed as secondary agents. Houses, stores and factories should have complete systems of ventilation.

"All persons predisposed to this disease, whether by heredity or susceptibility, by conformation of the chest, or any cause whatsoever, should, so far as possible, take this fact into consideration before choosing their life calling.

"If war or any dire calamity, with a fatality equal to that of tuberculosis, should menace us, the whole nation would be up in arms in a day, but consumption has so long been regarded as a hopeless disease that we sleep on while so many of our ablest and best are prematurely garnered by this not invincible foe.

"In closing this paper I will quote Lord Beaconsfield's celebrated words: 'The atmosphere in

which we live has more to do with human happiness than all the accidents of fortune and all the acts of government.'"

Just how this paper was received by the members of the medical profession whom it reached is not known. That it found some sympathetic readers is to be concluded, however, by the fact that shortly after the sanatorium was formally opened in the summer of 1903, Dr. Green of St. Paul referred to it its first patient. Later five or six more patients came.

This necessitated the hiring of a nurse, Miss Nelson of River Falls took the position, and a cook.

But by the time that things had shaped themselves to a working basis, a cool fall set in and by the end of August the Sanatorium was forced to close for the season and Dr. Hopkins to return to Cumberland and his regular practice.

The next season, however, started with greater promise. The first patient came June 22, 1904. Dr. Hopkins has entered her upon the books as Mrs. Ellen J—, aged 43. Of her he says:

"Entered June 22, remained a week, was absent for a week (perhaps some sanatorium superintendents will appreciate this) returning July 5th. Lungs in fair condition, but has tuberculous pleurisy on right side and firm, dry rales in the apex of right lung.

"Gave iodine both by inhalation and internally."

Further entry is not made until July 7th—Dr. Johnson of Iron River had joined the sanatorium by this time on which date Mrs. Mary Mc—, of Anaetia, N. D., entered as a patient. "She has dry rales on the apex of both lungs and has been using iodine both by inhalation and internally."

Three weeks later Mrs. Annie U— came. "She has had trouble with her lungs for twenty months, hemorrhage 18 months ago. She is thin and weak.

"There are a few imperfect bacilli in sputum and at times I can detect a few dry, crackling rales in apex of lung."

She is given:

"Carbonate of creasote—five drops (at present) and a tonic of tr. of calisoya and gentian."

On July 27th Mrs. J—, the first patient, received 1 m. of iethyol given three times daily, this dose to be increased gradually to 5 m. upon August 1st. Her right lung is reported in good

condition, there are slight rales in the middle lobe of the right posterior and also in the apex, both anterior and posterior. Mrs. Mc— evidently complained of stomach trouble for she received a “nox vomica, acid and pepsin mixture” at this time.

Later August 1st—the ichthyol and the stomach mixture are continued. Iodine is given to Mrs. J— by inhalation only and “there appear to be less bacilli in her sputum than at first.” The other patients appear to be doing nicely and Art. J— of Lake Nebagamon has just been entered as the first male patient.

By August 16th work at Evergreen Park is going at top speed. Mrs. J— shows improvement, Mrs. Mc—’s dyspepsia has caused her to lose three and a half pounds in the past week. Art. J— shows no improvement “unless it is that he sweats less.” He is running a temperature of 102.2 and has a pulse rate of 120; his lungs are free from rales. He is put upon ichthyol. To counterbalance this, however, is the case of Julia T—, aged 23. Entered upon August 2nd, she “really seems to be upon the gain.” She takes her sun bath regularly in pleasant weather, is stronger, and runs a temperature of 102 instead of 105.

Thus affairs go until September. Two new patients have entered during the latter part of August but Mrs. J— has gone. She remained in the sanatorium only six weeks during which time “she showed a marked improvement in the base of the lungs.” Her case was quite hopeful and it may have caused the doctor a pang to finish out her sheet with this terse line in pencil, “went West next and died in a few weeks.”

The rest of the patients stayed on until the middle of September, then they drop off one by one. Julia T—, though she is doing well, leaves the 13th of September. A month later comes the news of her death. Art. J— leaves for California and dies there a few weeks later. Mrs. Annie U— stays until the 25th of the month. Her pulse has come back to 81, temperature is normal. Evidently the treatment has benefitted her for she lives until June, 1905, when she dies from “kidney and heart disease.”

The rest return home and by October 1st the cottages have been abandoned for the winter. Looking back upon it from his Cumberland office, Dr. Hopkins probably considered it a well spent summer. Enough progress had been shown by the



The cottage at Lake Nebagamon that became the first tuberculosis sanatorium in Wisconsin.

seven patients treated to serve as a nucleus for enthusiasm; enough errors had been found to stimulate a winter's planning. Taken by and large, there was not a single logical reason in all the data collected to argue against a bigger, better year in 1905.

And that season started propitiously. A small pamphlet was circulated bearing the title: “Evergreen Park, Cottage Sanatorium, For Tuberculous Patients. W. B. Hopkins, M. D., Medical Director, Miss Tillie Thompson, Trained Nurse.”

Of the treatment for tuberculosis it says: “Regular habits must be the foundation for all treatment. Regular hours for sleep and meals, regular hours for rest and exercise.”

Then of the cost to the patient:

“The cost is not high. The expense in the cottages with four or five patients in each cottage is fifteen dollars per week. In tents, twelve dollars per week. This includes medical attendance, nursing (when not confined to the bed) board and medicine, but not personal laundry. Persons who are unable to meet this expense can build shacks or use their own tents within the park provided they are well ventilated and screened and everything is kept in a perfectly hygienic condition within and without, and it is understood that they comply with the same rules and regulations as the regular patients. These patients I will treat for ten dollars per month, not including calls between nine p. m. and six a. m. Single meals fifty cents each. The above prices do not include surgical operations.”

In large type is added: “Religion—Nonsectarian but Christian.”

(Continued on page XXIV)

THE JOURNAL BOOK SHELF

Concealed Tuberculosis or "The Tired Sickness." George Douglas Head, B.S., M.D. P. Blakiston's Son & Co., Philadelphia; pp. 137.

Manual of Psychiatry. Paul E. Bowers, M.S., M.D., pp. 365. W. B. Saunders Company, Philadelphia and London.

Organotherapy in General Practice. G. W. Carnrick Company; pp. 253.

Compiled Lectures on Uveal Tract in General Iris Ciliary Body Choroid Lens Vitreous. Compiled from American Encyclopedia of Ophthalmology and other sources with Correlation Notes and Additions. By Vernon A. Chapman, M. D., F. A. C. S., Assistant Professor of Ophthalmology Marquette University Medical School, Milwaukee.

Genito-Urinary Diseases and Syphilis, Including Their Surgery and Treatment. By Charles S. Hirsch, M. D., Urologist to the Jewish Hospital; Mt. Sinai Hospital, and Eagleville Hospital for consumptives, Out Patient Dept., Philadelphia. Fourth edition, revised, with 44 illustrations. Price \$2.00. P. Blakiston's Son & Co., Philadelphia, 1925.

Proceedings of the International Conference on Health Problems in Tropical America, held at Kingston, Jamaica, B. W. I., July 22 to August 1, 1924. By Invitation of the Medical Department, United Fruit Company. Published by United Fruit Co., Boston, Mass., 1924.

Medical Education, a Comparative Study. By Abraham Flexner. The Macmillan Company, New York, 1925.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

RECEIVED FOR REVIEW

Fractures and Dislocations. Immediate management, after-care, and convalescent treatment with special reference to the conservation and restoration of function. By Philip D. Wilson, A. B., M. D., F. A. C. S., Instructor in Orthopaedic Surgery, Harvard Medical School, and William A. Cochrane, M. B., Ch. B., F. R. C. S., Edin., University Tutor in Clinical Surgery, University of Edinburgh. Illustrations 978. J. B. Lippincott Company, Philadelphia, 1925.

The Crippled Hand and Arm. A monograph on the various types of deformities of the hand and arm as a result from abnormal development, injuries and disease, for the use of the practitioner and surgeon. By Carl Beck, M. D. Illustrations 302. J. B. Lippincott Company, Philadelphia and London, 1925.

The Diagnosis of Children's Diseases. With special attention to the diseases of infancy. By Prof. Dr. E. Feer, Director of the University Children's Clinic, Zurich, Switzerland. Translated by Carl Ahrendt Scherer, M. D., F. A. C. S. J. B. Lippincott Company, Philadelphia, London, Montreal, 1925.

Manual for Diabetics. By Gladys L. Boyd, M. D., Director of Diabetic Clinic and Clinical Assistant, Hospital for Sick Children, Toronto; Research Fellow in Pediatrics, University of Toronto; Assistant Physician to New-Born Clinic, Toronto General Hospital; Pediatrician-in-Chief, Woman's College Hospital, Toronto; Fellow of Canadian Society for the Study of Diseases of Children. And Marion D. Stalsmith, Dietitian to the Diabetic Clinic, Hospital for Sick Children, Toronto. Funk & Wagnalls Company, New York and London, 1925.

REVIEWED

Diseases of the Eye. By De Schweinitz. 10th Edition. W. D. Saunders, Publishers, Philadelphia.

This edition of what may be called America's leading text-book of Ophthalmology appears in a new and more compact volume having been completely revised and reset.

Few text-books on any subject have been so popular and so systematically kept abreast of the times as this well known work of De Schweinitz. This revision includes "the useful and important additions" to ophthalmic literature which have appeared since the last edition. Among the newer subjects included are the Diaphragm Lamp, Gullstrand Contact Illumination, Binocular Visual Acuteness, Illumination and Acuteness of Vision, Sunlight as a Source of Illumination in Ophthalmology, Simple Centric Ophthalmoscopy, Gullstrand Ophthalmoscopy with Red Free Light, Agricultural Conjunctivitis (Patton and Clifford), Striate Clearing of Corneal Opacities, Uveoparotitis, Hernia of the Vitreous, Senile Changes in the Optic Nerve, Temporary Amaurosis in Infants, Butyn, Extraction of Cataract by Suction (Barraquer's Method), Subconjunctival Excision of Pterygium (Ziegler), Tendon Transplantation, Muscle Resection with Tendon Transplantation, O'Connor's Cinch Shortening Operation.

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this branch of medicine can not fail to find in it a trustworthy guide.—F. A. D.

Cancer—How It Is Caused; How It Can Be Prevented. By J. Ellis Barker. E. P. Dutton & Company, Publishers, New York.

The author, a layman, presents an array of statistics and citations from the literature as proof of his statement that cancer is due to chronic poisoning and to vitamine starvation. The chief source of the chronic poisoning is intestinal stasis or chronic constipation. He quotes extensively on this subject from Sir W. Arbuthnot Lane who has written an appreciative introduction to his volume. These poisons are formed largely in consequence of the consumption of food-stuffs which have been deprived both of the vitamins contained in them and of the rougher material which tend to counteract constipation. There is also the continued absorption of chemical poisons among which poisonous food preservatives are most important. He states that at present there is no cure for cancer but that by dietary measures and the prevention of constipation cancer in time may be almost eliminated.

The book, the author states, is addressed principally to the general public, and is written in plain untechnical language. This is unfortunate inasmuch as it shows no critical judgment in the evaluation of the material presented and the conclusions drawn in no wise follow from the premises.

Whatever might be said in its favor as a study in statistics is entirely vitiated by the bald statement that there is at present no cure for cancer. A book containing such a statement can do only harm in discouraging early radical extirpation, at present the only known cure for cancer.—C. A. Hedblom, M.D.

National Health Series. 6 Volumes. Edited by the National Health Council. Funk and Wagnalls Company, Publishers, New York and London.

We have received for review the last six volumes of the National Health Series, edited by the National Health Council and published by the Funk and Wagnalls Company, New York and London, 1924.

Adolescence; Educational and Hygienic Problems. By Maurice A. Bigelow, Ph.D., Professor of Biology and Director of the School of Practical Arts, Teachers' College, Columbia University. Dr. Bigelow has handled a subject considered by most parents to be very "delicate" in a thoroughly intelligent manner. Teachers as well as parents should find this volume most helpful in the effort to understand the problems of the adolescent.

Exercises For Health. By Lenna L. Meanes, M.D., Medical Director. Women's Foundation for Health, Inc. One wishes that Directors of Physical Education and Physicians in charge of Student Health Departments as well as all thinking women—and men—might read this highly entertaining and intelligently written small book. The exercises recommended are most practical and the entire volume is well worth while.

Health of the Worker; How to Safeguard It. By Lee K. Frankel, Ph.D., Chairman National Health Council, with the collaboration of Bessie Bungel, M.A.

Dr. Frankel's long experience in preventive medi-

cine has peculiarly fitted him to present to employer and employee alike this really valuable contribution. With much profit it may be read by everyone at all interested in industrial problems.

The Child in School; Care of Its Health. By Thomas D. Wood, M.D., Professor of Physical Education, Columbia University.

This particular volume, written by one who has contributed much to the health of children, especially during school age, is most welcome. Parents, teachers, members of school boards cannot fail to be enlightened by its contents.

Home Care of the Sick; When Mother Does the Nursing. By Clara D. Noyes, R.N., Director, Nursing Service, American National Red Cross.

Miss Noyes is undoubtedly one of the great nursing authorities of the world and this practical manual of things to be done for the patient and how to do them is most timely. In the various chapters, explicit instructions are given to the mother or practical nurse for the care of the sick. Also hygienic measures to be a daily routine are explained in detail.

Your Mind and You; Mental Health. By George K. Pratt, M.D., Medical Director, Massachusetts Society for Mental Hygiene.

For the many, besides parents, people interested in the problems of mental hygiene, this volume is highly instructive. In such a brief space, it is impossible to more than touch upon various phases of what is now recognized as a most particular specialty. Judges, directors, superintendents and attendants in "Homes for Delinquents," State Hospitals, etc., as well as disciplinary deans and committees of colleges might, at times, have a broader conception of many so-called offenses, were they more familiar with the problems discussed in Dr. Pratt's admirable book.

After reviewing the entire twenty volumes of the National Health Series, the writer feels the National Health Council and the Funk and Wagnalls company are to be congratulated in presenting to the general public such valuable information.

The price of each volume is thirty cents net—of the entire series \$6.00, net, surely most reasonable. The hope is expressed that they will be as widely read as they deserve to be.—W. A. M.

Physical Diagnosis. By W. D. Rose. 4th Edition—755 pages. The C. V. Mosby Co., St. Louis, Mo.

The fourth edition of this standard text presents practically no radical departure from the last edition. In general, with the possible exception of the neurological section, the subject matter is adequate and well organized. We cannot subscribe to the general arrangement of the text which offers the thorax first. The most logical approach for a treatise on physical diagnosis would seem to be after the order of a routine physical examination. Furthermore the omission of history-taking and of a consideration of subjective symptoms are scarcely justifiable even in the strict interpretation of the title of the text. Minor objections are offered to the omission of the thymus gland from the contents of the superior and anterior mediastina.

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The work of Professor William Snow Miller with reference to the minute anatomy of the lung and of Professor Charles F. Hoover on the diaphragmatic and intercostal functions should be consulted in the preparation of new editions. The theory advanced in explanation of Harrison's groove is inadequate in our opinion. Then, too, Capp's points in the cervical region in cases of diaphragmatic pleurisy are not necessarily in the course of the phrenic nerve. The closing paragraph of the section of radiographic diagnosis involves a rather larger contract than is implied in the "adequate conception."

At first glance these criticisms might appear far-reaching. Actually they cover very small points and in no sense impair the usefulness of this excellent textbook, against which the chief indictment drawn is the unusual order of the subject matter.—W. S. M.

Developmental Anatomy. By Leslie Brainard Arey, Professor of Anatomy at Northwestern University Medical School. 419 illustrations, many in colors, 433 pages. W. B. Saunders & Co., Philadelphia and London.

This text gives a splendid presentation of the development of the mammalian body. The development of each organ is well described and abundantly illustrated. The volume is divided into three parts. In the first part the early stages are treated comparatively and the full course of prenatal and postnatal development is outlined. The second part traces the origin and differentiation of the human organ-system, grouped according to their germ-layer derivations. The third part comprises a laboratory manual for the study of chick and pig embryos. The first part and the chapter on the nervous system are exceptionally well illustrated and presented.—T. H. B.

Laboratory Guide in Histology. By Leslie Brainerd Arey, Professor of Anatomy at Northwestern University Medical School. Second Edition, 1924, 96 pages. W. B. Saunders & Co., Philadelphia and London.

This is a very inclusive guide for a general course in Histology. The directions and questions are pointed, covering the diagnostic features of the structures treated.

The subject is taken up in the conventional way. A few pages are given to cytology. Eighteen pages are devoted to Histology proper, including the four elementary tissues, Epithelial, Sustentative, Muscular and Nervous. The last forty-two pages are devoted to Organology.—T. H. B.

Fundamentals of Human Physiology. By R. G. Pearce and J. J. R. Macleod. Third Edition. The C. V. Mosby Company, St. Louis, Mo.

The well established scientific reputation of the authors of this volume is sufficient guarantee that the contents are accurate and worth while. All too seldom do men who have achieved international renown condescend to the writing of elementary treatises. Drs. Pearce and Macleod have aimed to present a brief but comprehensive review of the science of physiology. They have succeeded. The discussions though necessarily brief are up to date, embodying the most recent advances, a feature very rare in an elementary work. Cuts and diagrams are abundant and good.

This volume is not in any sense a medical manual. It is a text very suitable for advanced high school or college classes, nurses, technicians or any layman who is desirous of knowing the more important results and trend of the modern science of physiology.—W. J. M.

The Physiology of Exercise. By James Huff McCurdy and R. Tait McKenzie. Lee & Febiger, Philadelphia and New York.

With the extraordinary interest in and development of athletics during the last generation a great deal of attention has been devoted in many quarters to the physiology of exercise.

Dr. McCurdy's attempt to treat this subject is of interest because he brings to his task not only the experience of a trained physiologist but the experience as well of a physiologist who is familiar with the methods and problems of practical training. It is almost needless to say that the results of such a combination are apt to be good.

Although the book is labeled a textbook for students of physical education, it will be found to be of interest to the specialist and general reader. Anyone who is interested in knowing what happens to the body as a whole or to any of its parts during exercise will have many of his questions answered in its pages.

The mechanical make-up is excellent. Tables are abundant and typographical errors few. A more liberal use of diagrams and a somewhat fuller index would have been helpful. The generous bibliographies are one of the excellent features. Lists of questions at the end of chapters enable the student to formulate concrete ideas from data necessarily sometimes scattered in the text.

The only work with which Dr. McCurdy's text can be compared is the well known "Physiology of Muscular Exercise" by Bainbridge. The latter is a pure physiological treatise, having only the indirect relation to physical education. McCurdy is at every point striving to bring physical training in both its detailed and broad aspects into relation with physiological science.

Only two criticisms at all adverse occur to the reviewer's mind. The metabolic side of muscular activity is not adequately treated. This does not refer to respiration or blood changes but to the mass of information that has recently been accumulated concerning the nature of contraction and the recovery processes, the types of metabolism involved and the effects of exercise on the excretions.

In the second place the stand that excessive training as exhibited in many athletic sports is devoid of danger does not seem to the reviewer to be a safe conclusion. In the author's discussion adverse data such as that furnished by the United States Naval College, Harlow Brooks, and the condemnation of excessive training by such German physiologists as Reubner are not mentioned. This question is still an open one. A comparison of length of life and incidence of disease between athletes and the general public is not convincing. Athletes come from a special class who are physically fit at the beginning. The death rate and incidence of disease among athletes might be lower than for the gen-

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eral public and still be higher than it should be for its given class. It is data of this kind that must be collected to settle this much debated question.

The reviewer hopes that this text, which is really so excellent, may stimulate some one to produce a still more comprehensive work which may serve as a manual for the physiology of physical education. The work being done in America by McCurdy, McKenzie, Sargent, Martin and Dawson justifies this hope.—W. J. M.

FIRST SANATORIUM IN STATE

(Continued from page 583)

As a reference committee the following names are given:

F. W. Epley, M.D., New Richmond, Wis.
Wm. E. Ground, M.D., West Superior, Wis.
Charles L. Greene, M.D., St. Paul, Minn.
Rev. F. M. Haight, Eau Claire, Wis.
E. Huser, Cumberland, Wis.

Whether stimulated by this pamphlet—it was sent only to physicians, for Dr. Hopkins would not stoop to publicity which he considered unethical—or by the reputation for hopeful results acquired the season before, is not indicated, but nevertheless the camp filled up. The cottages were carrying their capacities and the overflow had to be housed in tents by July.

Records of this year show many improvements over the previous year. A greater stress appears to have been placed upon rest. The iodine treatment is apparently slowly being discarded. Many of the difficulties encountered the preceding year seem to have been solved, for the tone of the entire record is surer. Of course some minor matters of discipline came up. Patients still insist upon trying their own methods. One of them in particular insists that exercise is the treatment he needs, and obstinately walks until he is completely fatigued to the chagrin of the doctor. Another comes and goes as it pleases him.

These are a few of the vexations. They are compensated for, however, by achievements. Patients came both from Wisconsin and Minnesota. The Douglas County Medical Society met at Evergreen Park in 1905 and papers upon the treatment of pulmonary tuberculosis were read. Evidently the venture was considered a fair success.

Then at the end of the summer, Dr. Hopkins audited his books. The original purchase of the land and the erection of buildings had cost him in the neighborhood of \$6,000.00. The cost of main-

tenance over and above the income from the patients amounted to more than \$500.00 a year, not counting his own services and those of Dr. Johnson which were gratis. It was plain that unless outsiders could be interested the financial drain would become too great.

Thus, after a winter of thinking it over, the project was dropped. A line or two from his son's letter, his son is Ralph E. Hopkins of Cumberland, will give an indication of how the old doctor felt:

"Just what it cost father, he would never let us know, and he never mentioned the sanatorium after he gave it up. He spent his entire life to accomplish this task, and it was a most keen disappointment to him.

"In the site and the cottages he invested about \$6,000.00, the hospital furnishings I do not know about, but everything was very fine, and regular hospital equipment."

As for the patients, "all except one died within five or six years. In the summer of 1908, the cook who was employed the first summer died of pulmonary tuberculosis, and I well remember her while she was there as a healthy and beautiful woman," so Dr. Johnson, who has furnished much of the detail about the sanatorium, states. He further says, "As if to emphasize the relentlessness of the Great White Plague, Dr. Hopkins died of pleurisy—perhaps of tubercular origin—in 1918."

REPORT OF THE COMMITTEE OF THE SECTION ON OPHTHALMOLOGY ON LOCAL ANESTHESIA

The committee on local anesthesia in ophthalmic work of the Section on Ophthalmology of the American Medical Association reported as follows: American ophthalmologists as a whole have not used infiltration anesthesia to the extent that its merit warrants. Infiltration anesthesia furnishes a satisfactory anesthesia for most ophthalmic operations, and may supplant general anesthesia except in those patients whose cooperation cannot be obtained. In those cases in which a satisfactory anesthesia is not secured from topical applications alone, infiltration anesthesia will be found to be a valuable adjunct and sufficient for any kind of ophthalmic work. Thus it will be found especially useful in cataract operations when used to paralyze the orbicularis muscle and prevent squeezing with possible loss of intra-ocular contents, and in advancement operations. The anesthetic of choice should be procain in 1 or 2 percent solution, and never exceed 4 per cent solution, of which latter solution 2 c.c. is sufficient, though 4 c.c. has been injected many times without toxic effects. Epinephrin, 1:100,000 or 1:200,000 (two drops to a 1:1,000 solution of epinephrin to 5 c.c. of procain solution) should be added, not only for its ischemic effect but to prevent absorption of the solution, thus prolonging the anesthesia and lessening the toxicity of the procain. The solution should be injected very slowly through a fine needle, and not less than ten minutes elapse before beginning operation. From fifteen to thirty minutes is not too long to wait before beginning such operations as enucleations and advancement of ocular muscles. From the standpoint of the general physical condition of the patient, there are no contraindications to the use of infiltration anesthesia for ophthalmic operations. For the technic of securing satisfactory anesthesia by infiltration, the committee recommends any of the late works on local anesthesia.

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Some Easily Overlooked Manifestations of Circulatory Failure with Remarks Upon Diagnosis and Treatment*

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A good many years ago an internist friend and I were walking over Walnut Street bridge, Philadelphia, discussing the physical diagnosis of diseases of the heart. In our youthful ignorance we agreed, like the three tailors in Tooley Street, that it was a closed chapter, that all was known that ever could be known and we had best devote our untapped energies in physical diagnosis to some other branch of medicine if we wanted to make discoveries. In this connection it is interesting to know that Andral in 1829 wrote the following: "Since the publication of the immortal researches of Corvisart, and of numerous other works subsequent to his, which have still further enlarged the dominion of science, the history of diseases of the heart and its membranes are to be regarded as almost complete." Little did we think that in a small provincial town in England a man at that very moment was blazing a new path in cardiac diagnosis, and that his work was to revolutionize a subject we believed to be perfect and unchangeable.

Sir James Mackenzie and those who have trodden in his footsteps have created a new science, and with it a new language, that would sound strange to the ears of Corvisart, Stokes, Bamberger, Skoda, Grainger Stewart, and Rosenbach.

If I venture tonight to touch upon the subject of heart disease, I am standing with one foot in the old world of physical diagnosis and with the other in the new world of laboratory diagnosis. The new, be it remembered, has not displaced the old, the one supplements the other.

I want to speak of some manifestations of circulatory failure, the picture of which is very obscure, often misleading the unwary and sometimes the expert. Even Mackenzie—*il mastro di color che sanno*—I am sure has sometimes gone astray.

I want to deal with a few of the more anomalous

manifestations of early and late cardiac failure, and discuss the ways and means of recognizing and treating it.

The term "failing heart power" gives the impression that the heart alone is concerned in the pathogenesis of the symptoms. That is our traditional mode of expression, but it is inadequate and incomplete. Hence, before going further I want to make it clear that when I speak of failing heart power I have in mind the entire circulatory apparatus, which though anatomically divisible into the heart, arteries, veins, and capillaries, is physiologically one great organ. Heart failure, therefore, nearly always means circulatory failure. The need to emphasize this conception comes from the fact that we have not hitherto given enough attention to the other components of the circulatory system, the heart having completely filled our horizon. Studies on venous pressure, capillary circulation, gaseous exchange in the lungs, and osmosis, are throwing a flood of light on the subject of failing circulation.

EARLY SIGNS

As a rule the earliest sign of failing heart power is shortness of breath on exertion. When that symptom obtrudes itself few men fail to recognize its meaning. Nevertheless, mistakes are common. If the dyspnea is pronounced and is associated with coughing and wheezing, the diagnosis of asthma is often made. If a murmur is detected, the term "cardiac asthma" is generally used; in the absence of a murmur the diagnosis is apt to be plain asthma.

Many men, especially those who have not served in a large municipal hospital, hold to the view sans murmur no heart disease. This is a very pernicious doctrine, for it means overlooking many instances of failing heart at a time when the condition is remediable.

I hear some one say if there is no murmur present, how can you tell the heart is diseased? By ordinary physical examination, which usually reveals the following departures from normal:

*Read, by invitation, at the Inter-State Post Graduate Assembly, October 27, 1924, at Milwaukee, Wis.

1. The apex beat is a little to the left of the normal position.

2. Percussion reveals enlargement of the area of cardiac dullness.

3. Auscultation is at times the least informing, although to the trained ear something in the sounds and muffling of the first sound, perhaps a prolongation of it is suggestive. The electrocardiograph proves helpful in localizing myocardial lesions, but in daily practice is rarely available.

What about arrhythmia? Arrhythmia may be absent and yet the heart may be gravely diseased; the reverse is also true. Extra-systoles and auricular fibrillation while often found in failing hearts, are entirely compatible with normal function, and of themselves and by themselves are not of much prognostic value.

A gallop rhythm may be significant if it is of the cantering type, that is if produced by a duplication of the first sound like the Greek anapest meter.

One other sign is often present in cases of early cardiac disease—a few moist rales at the bases of the lungs on deep breathing. They may be heard only on one side, usually the one on which the patient is lying. Naturally when the stage of edema of the legs is reached, the diagnosis is no longer in doubt.

GASTRIC SYMPTOMS

Gastric symptoms sometimes usher in failing circulation. Even if not the first manifestation, they may come to dominate the scene.

The following case is an illustration of what I have in mind. A married woman twenty-seven years of age consulted me on account of persistent vomiting. She stated that she had been well until April, 1922, when her vomiting began suddenly. She stayed in bed for a week and the vomiting ceased, but she continued to be a little short of breath, although able to lie flat, and had occasional attacks of palpitation. Since that time her chief trouble has been recurrent, painless vomiting. Her previous history is meager in points of significance. She has never had rheumatism; she had slight tonsillitis, no chorea. She was married eight years ago and has two healthy children, one seven years and one eighteen months old with a miscarriage between them.

The attacks of vomiting, with the emphasis she laid upon them to the exclusion of other symptoms, made us at first suspect some primary

gastric disease. Examination, however, showed a double mitral murmur, a large heart and a large liver without any edema anywhere. In this patient, the cardiac failure was rather advanced and yet vomiting was the chief symptom. It was evidently connected with congestion of the gastric mucosa and liver.

Another striking feature in this case was the marked enlargement of the liver without visible edema. One usually expects some degree of dropsy when the liver is greatly enlarged as a result of cardiac decompensation. It is, however, possible, as this case illustrates, to have the decompensation fall principally upon the liver. That organ can hold an enormous amount of blood. I am in the habit of comparing it to a lock in a canal—for a time it can hold back large quantities of stagnant blood, eventually, however, there is a spilling over with appearance of edema and ascites.

The important point in this matter is that such enlargement of the liver without familiar signs of decompensation is liable to lead to diagnostic error. In several instances I have seen the diagnosis of malignant tumor made.

Particularly difficult are the cases of mitral stenosis with enlargement of the left lobe of the liver producing a prominent tender epigastric tumor. Since the murmur of mitral stenosis is often inaudible, the cause of the enlargement of the liver will not be suspected, and the tumor will be interpreted as a malignant growth.

On one occasion the late Dr. W. L. Rodman asked me to see a patient prior to operation for gastric cancer. There was vomiting, failing appetite, loss of flesh and the presence of a large tumor-like mass in the epigastrium. I found that the case was one of mitral stenosis with a left lobe enlargement of the liver.

Cough is a common feature of beginning as well as of advanced decompensation. In rare instances it is so severe as to be an overshadowing symptom, as in the following case: Mrs. T., a widow of about sixty-eight years of age, had for some time been troubled by a harrassing, unproductive cough and insomnia. My first impression when I saw her was that she was suffering from chronic bronchitis with some degree of emphysema.

To my surprise I found on examination that the apex beat was in the anterior axillary line. There was no murmur, no arrhythmia, no effusion, no edema. Treatment on the basis that the cough was an expression of cardiac weakness proved help-

ful, but not for long. The damage to the myocardium was beyond repair.

Here the old fashioned methods of inspection, palpitation and percussion give the required information. The Hippocratic practice of using the eyes and hands and that of the immortal Auenbrugger of using the fingers were quite adequate for the needs of the situation.

MAY SIMULATE MALIGNANCY

That myocardial weakness may simulate malignant disease of the gastro-intestinal canal may at first sight seem unlikely, but the following case as well as some others I might cite proves it:

I was once called to Johnstown, Pennsylvania, to see a physician, fifty-four years of age, who was suspected of having malignant disease either of the stomach or bowel. The chief symptoms were great weakness, an epigastric pressure feeling with eructation of gas on exertion, poor appetite, loss of flesh and increasing despondency. When I heard the story and saw the patient, I was quite prepared to accept the diagnosis. An X-ray study of the gastro-intestinal tract had been made but the pictures gave little information. On examination I found that the heart was somewhat enlarged, the sounds extremely feeble and the blood pressure low. There was neither arrhythmia nor murmur. With some trepidation I made a diagnosis of myocarditis—using that term in the clinical sense—and attributed everything to circulatory weakness. Under digitalis and other appropriate treatment the patient recovered in a short time and afterwards visited me in Philadelphia. The heart is still slightly enlarged but fully competent. I must confess that when I took the train home from Johnstown, I asked myself the disquieting question "is it heart disease or is it latent cancer?"

Much more common than the resemblance to malignant disease is that to the severer forms of nervous or functional dyspepsia. Sometimes the gastric manifestations in early circulatory failure, as in the first case I mentioned, are so prominent that they focus the attention upon an innocent organ, the stomach, rather than upon the heart.

The following case is illustrative of this fact: L. P., physician, fifty-four years of age, had "suffered from gas"—bloating and belching—and from epigastric pressure for several years. A noted gastro-enterologist whom he consulted lavaged and dieted him but to no avail. When I saw him I found in addition to the gastric symptoms, which were the only ones he stressed, a little

shortness of breath and a sense of great exhaustion. Physical examination showed some swelling of the liver, decided cardiac enlargement, and a distinct bruit de galop, without other arrhythmia. The case was clearly one of progressive myocarditis with predominantly gastric symptoms.

Ascites as a solitary transudate or exudate is usually attributed to cirrhosis of the liver, sometimes to tuberculous peritonitis, or to malignant disease. Nevertheless such a silent ascites may be due to cardiac failure, and is an exception to the rule that ascites, dropsy and pulmonary congestion and perhaps hydrothorax are usually found in association in cases of heart failure. Adherent pericardium is the chief cause of ascites as a mono-symptomatic expression of heart failure. Occasionally the cause is a chronic myocarditis. The diagnosis can be made by careful attention to the physical signs, in particular to the presence of marked increase in the area of cardiac dullness.

Hydrothorax, especially one sided, may be the only objective manifestation of failing heart power. As a rule the effusion is on the right side, but it may be on the left. If the case is one without murmur, the cause of the hydrothorax may be misinterpreted. An overlooked hydrothorax may be the obstacle to successful digitalis therapy—when the effusion is removed, the drug takes hold.

Pulmonary edema. I have in mind the sudden so-called apoplectiform edema of the lungs, which sometimes occurs in cases of mitral stenosis. It is terrifying in its violence both to the patient and to onlookers. It may come on without the slightest warning, and has appeared occasionally during or after labor. In addition to sudden onset, a tendency to recur is one of its striking features. If properly treated, it is rarely fatal, but the physician must be familiar with its significance and management.

Pulmonary hemorrhage, as a symptom of cardiac disease, is quite well known. It is most frequent in mitral stenosis, the murmur of which, as I have already stated, is frequently inaudible. That explains a fact well known to sanatorium physicians, that cases of hemoptysis due to mitral stenosis are very often diagnosed as pulmonary tuberculosis. One should always, in sudden pulmonary hemorrhage, think of this fact, especially if the patient is a young person.

A few years ago I pointed out the occurrence of *psychoses* during the course of heart disease. It is very easy in such a case to conclude that the

patient has some form of independent insanity, when in reality the mental manifestations are dependent upon the heart lesion, more rarely upon digitalis.

One other subject should be mentioned because of its practical importance. As you know, in cases of failing heart with dropsy, the urine often contains albumin and tube casts. To many minds these urinary findings are proof of nephritis, of some form of Bright's disease. Such an opinion would receive corroboration if the physical examination showed a regular, murmurless heart. When not called nephritis, such cases are spoken of as cardiorenal cases or as chronic parenchymatous nephritis with hypertrophy and dilatation of the heart. The following story illustrates the point I wish to make:

One day I came into my wards at the Philadelphia General Hospital and asked the interne what he had for my class. He replied "I have a good case of Bright's disease."

The patient had just had a hot pack and seemed greatly exhausted. On examination I found that he had general anasarca, and a perfectly regular heart without murmur. The urine contained a large amount of albumin. To all appearance the diagnosis was justified. Examination, however, showed that the case was one of great dilatation of the heart with secondary passive congestion of the kidneys. The hot packs were stopped, digitalis was administered and complete rest enjoined. In a short time the patient left the hospital with good compensation and normal urine.

The differentiation between cases of nephritis with secondary cardiac failure, which are the true cardiorenal cases, though better called renocardiac, and cases of primary heart disease with passive congestion of the kidneys, falsely called cardiorenal, is not easy. The phenosulphonphthalein test is often fallacious, giving reduction in both types. The blood chemistry is likewise of little help. In time the therapeutic test may determine the correct diagnosis for the primary cardiac cases often recover from the attack while the true renal cases generally go on to a fatal termination. For rapid bedside distinction the character of the urine is of great value. In cases of congestion of the kidneys secondary to heart failure, the urine is dark, strongly acid and throws down a heavy pinkish sediment of urates. This does not occur in true nephritis. A feature in the history is also

important, namely that heart cases often have a record of repeated admissions to hospital, each for a cardiac break. This is not the history of nephritis.

TREATMENT

I now come to the subject of treatment. It is not necessary to dwell on the well known principles of rest and diet and digitalis. When digitalis fails, apocynum cannabinum may be tried. I want to emphasize the importance of not overlooking a large effusion, which acts as a hindrance to the heart and prevents it from reacting properly to treatment. A single tapping may suffice to change the case completely, or it may be necessary to tap two or three times. Recently a patient, W. M., 57 years of age, came to see me on account of great prostration and shortness of breath. He had been under treatment for heart trouble, but had been steadily getting worse. I found aortic insufficiency and all the characteristic signs thereof, but that was not sufficient in itself to explain the man's disability and dyspnea. The discovery of a large effusion seemed to be an adequate explanation. I had him tapped; a quart of fluid was removed, with the result that he has been a changed man, and is eager to resume his occupation as a teacher of manual arts.

Sometimes despite every effort the dropsy persists. The integument is full of water, the face puffy and cyanosed, the serous cavities filled, the genitalia swollen, the lower limbs enormously enlarged. The patient has to sit up night and day, gets very little sleep, and is in an altogether pitiable condition. I have seen patients in this state recover completely from the dropsy and the serous effusions and live for several years as a result of a simple procedure, very ancient, though forgotten by many, namely scarification of the legs. The following case is an illustration:

Mrs. C. H., forty-two years of age, married, was seen on September 21, 1921, with Dr. I. V. Levi. The patient had been dropsical since July. The urine was very scanty—eleven ounces in twenty-four hours—and contained albumin and casts. She had been digitalized several times, and had come to have an absolute intolerance for the drug. Whether given by mouth or hypodermically it always produced immediate nausea.

I found her sitting up in bed; her face was swollen, the cheeks purple, the lips of a maroon color. She was dropsical from head to foot; her legs were enormous; there was fluid in the abdo-

men and probably in the chest. The heart was enlarged to the left and irregular, and at the apex a blowing systolic murmur could be heard. The heart rate on auscultation was 156, the pulse at the wrist 86, a deficit of 70 beats. As there was no preparation of digitalis that had not been tried in the patient, either by mouth or hypodermically, there was no profit in persisting in its use.

At my suggestion the patient's legs were scarified with numerous incisions on the outer and inner surfaces below the knee. The result was wonderful. The anasarca entirely disappeared from the integument, and the patient was able to go home. I saw her again, and found her limbs of normal size; there was no edema of the skin, but a well marked ascites was present. This was removed by aspiration.

Early this past summer I was walking through the lobby of an Atlantic City hotel when a man accosted me, and asked me to step over to meet his wife. I was somewhat nonplussed as he was a stranger to me, nor could I recall having seen the lady introduced as his wife, but when she told me her name, I remembered her at once. It was Mrs. H., the dropsical woman whom I had scarified two years before. She seemed perfectly well and was enjoying life at the seashore.

It may not be without interest to those who take pleasure in medical history to quote something upon scarification which I found in a book called "The History of Physick; from the time of Galen to the beginning of the 16th Century," by J. Freind, M. D. "In a work by Sylvius de le Boe this author (de le Boe) relates from Asclepiades the manner of curing an Anasarca very exactly. This is by making incisions on the inside of the leg, about four fingers breadth above the ankle, as deep as generally those in bleeding are made. At first a little blood issues out; after, there is a continual discharge of water, without any inflammation so that the aperture cannot be closed, till the humour is spent, and the swelling gone down; and this drain cures the Distemper without any internal Medicine. Leonides the Alexandrian, an Author who lived after, but near Galen's time, and whose remains we find chiefly in Aetius, says further, that if the incisions in the legs do not make a discharge quick enough, some ought to be made in other parts of the body; in the thighs, in the arms, or in the Scrotum, if swell'd, by which means a great quantity of watry matter may be evacuated. Archigenes adds, that by these scarifi-

cations, not only the swelling of the thighs and legs, but that of the Belly has been found to subside. And, no doubt, where an Ascites is attended with an Anasarca this method may succeed in some degree; tho' in a simple Ascites it must be ineffectual. The operation itself is mentioned by Hippocrates; and has been practiced from his time, down to our own days, with great success."

I once measured the amount of fluid by having a double-bottomed tray made on which the patient rested her feet. We collected 35 oz. of serum a day. That is by no means as much as is drained off in some cases, but cannot be measured because it soaks into the dressings.

Southey's tubes may be used, but they have no great advantage over scarification. Infection is rare in either case, the serum being in a measure bactericidal.

I usually make about six cuts an inch to an inch and a quarter long on the outer and inner aspects of the leg below the knee. The incisions are carried through the skin into the subcutaneous cellular tissue. A little blood may flow at first, but it soon gives place to a continuous stream of watery serum.

When a patient recovers from typhoid fever or pneumonia, the credit seldom belongs to the doctor directly. The *vis medicatrix naturae* left to herself is capable of battling successfully with many acute and chronic infections. In cases of advanced circulatory failure with serous effusions, general dropsy, inactive kidneys, and the whole train of wellknown symptoms, Nature left to herself lets the patient die.

But when we succeed by therapeutic measures in restoring the patient to fair health, then we have achieved a real triumph. Then we have fulfilled one of the greatest missions of the physician—we have done what nature unaided could not do.

VALUE OF COOPERATION BETWEEN INTERNIST AND SURGEON

In complicated gastric conditions Donald C. Balfour, Rochester, Minn. (Journal A. M. A., March 21, 1925), says he performed partial gastrectomy on seventy-four patients with one death. The seventy-four cases in the series were: gastric cancers, thirty-three; gastric ulcers, twenty-five; recurring gastric ulcer, one; gastrojejunal ulcers, nine; duodenal ulcers, four; jejunal ulcer, one, and malfunctioning gastro-enterostomy, one. The majority of these patients had received preoperative rest and treatment as outlined, and the convalescence has also been followed, when indicated, by the members of the gastro-enterologic staff. A brief review of the technic of partial gastrectomy is made. In this series of cases, ethylene anesthesia, combined when necessary with sufficient ether to secure satisfactory relaxation, was used in sixty cases; a combination of local and ether anesthesia in three cases, and ether anesthesia alone in only one case. Balfour is convinced that ethylene in gastric surgery definitely lowers the risk of pulmonary complications, which are the cause of 50 per cent of deaths in operations in the upper abdomen.

Hypertension in General Practice*

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The subject of hypertension should be of great interest to all of us both personally and as physicians; personally because we belong as professional men to a group which is regarded as especially liable to the various disturbances associated with hypertension, and professionally because we meet with the evidences of this baffling syndrome so frequently, and so often with so little success. There is scarcely a branch of medicine in which the subject of blood pressure does not at times obtrude itself in either diagnosis or treatment, and no factor so often daunts the spirits of the conscientious practitioner.

Apparently something about the taking of one's blood pressure appealed to the imagination of the public from the very first, for it promptly became of so much interest that, perhaps some of us, at times may have wished that the sphygmo-manometer had never been invented, but on the other hand the very interest of the public and the demand for relief of "high pressure," have forced us to give the subject the really serious consideration it merits.

The amount of this serious consideration may be gauged by the fact that in the literature in 1923 and the first six months of the current year, there are to be found over two hundred articles in the medical journals covering the various phases of the subject. A review of as much of this as has been available and of the standard text-books as well, is illuminating in one thing at least, and that is, that the whole subject is in a deplorable state of confusion, especially in regard to the etiology and treatment. There is one source of satisfaction, however, that in the great number of observations, much valuable information is being gathered, new theories are being offered, older ones being disproven, a truer evaluation of data is being obtained and it would seem that a very much better understanding, if not a solution of the problem may be hoped for before so very long in the future.

It is to be borne in mind that in using the term hypertension reference is not made to it as a disease per se, but merely as a prominent symptom.

often frankly secondary to many organic diseases, at other times appearing with no demonstrable organic basis, but with the certainty of organic disease following its persistent presence. In many instances the question arises as to which is primary and which is secondary, and the difficulties of treatment are obvious; it is no wonder that there exists so much dissatisfaction in general practice on the subject.

For the present discussion, hypertension is referred to more or less as an entity, some times the chief complaint of the patient, at other times found in the routine examinations for various conditions, or it may be discovered accidentally in individuals taking periodic physical examinations, or in others seeking life insurance. With or without symptoms it is of serious import, as, barring accidents or intercurrent infections, there is always a possible termination in cerebral apoplexy, cardiac disease or uremia.

INCREASING FREQUENCY

Whether hypertension is increasing in frequency is a question that confronts us, and the answer would seem to be in the affirmative, although it is impossible to state categorically that such is the case or to give the rate of increase. The best indications are to be obtained from the records of the vital statistics, and probably next to these, the records of our larger life insurance companies. The latter represent selected risks, and therefore may not be considered as an accurate index of the community as a whole, but if the causes of death for different periods of years be compared, very suggestive data may be obtained. Hypertension may be assumed as occurring at sometime in cases reported as deaths from cerebral hemorrhage, thrombosis, chronic nephritis and many cases of heart disease, but this does not include all of its possible occurrences. On the other hand, there are fashions in diseases, and cario-vascular renal disease, and especially heart disease, are sometimes reported as the cause of death without proper certainty of diagnosis. In the living, the increasing frequency of physical examinations of the healthy and apparently healthy, the very general requirement in the last few years of blood pressure readings in life insurance examinations, and the rou-

*Read before the Inter-State Post Graduate Assembly, Milwaukee, Oct. 27-31, 1924.

tine use of the sphygmomanometer in practice nowadays, may give an impression of increase in recent years that is more apparent than real. Statistics indicate that the death rate of individuals over 45 is relatively higher than it was 15 years ago, which is a very significant fact. Cerebral hemorrhage, organic disease of the heart and arteries, nephritis and cirrhosis of the liver are all showing a decided increase in frequency and of these, according to the U. S. Bureau of Vital Statistics, arterial disease showed the greatest increase of all. In Ohio, in the period from 1913 to 1923 of all assigned causes of death, 15.2% were diseases of the circulatory system. In 1923 there was an increase of 6,467 deaths from all causes over 1913, which is about proportional to the increase in population. The increase in deaths from diseases of the circulatory system, however, was 1075, or 16.56%, which indicates a definite and actual increase. Judging from the local reports in Columbus, it would seem that the rate was considerably higher than in the country districts, rather as one might assume to be the case. Unfortunately the nomenclature and classifications in statistics are incomplete and confusing; not all cases of diseases of the circulatory system are associated with hypertension. Bunn,¹ in a discussion of the deaths from heart disease, gives a chart of the incidence of such deaths in Ohio and states that at the age of 45 and over, organic heart disease causes more deaths than any other disease.

In this table, the term organic heart disease undoubtedly includes not only valvular disease, but myocarditis, sclerosis of the coronary arteries, and in fact probably all cases manifesting cardiac symptoms, especially cardiac decompensation and very possibly many cases of sudden deaths of undetermined cause, but reported as heart disease for want of a better term. In this group, probably the great majority were really secondary to or a part of the hypertension syndrome, but just what per cent under the present careless methods of death reports, it is impossible to say.

Thus the question of the incidence of hypertension is in a state of doubt, but the fact remains that in general practice more cases present themselves for treatment and the tragedies of the syndrome seem more frequent.

CLASSIFICATION

Various classifications have been offered, but none is entirely satisfactory up to the present time. Warfield's² grouping is an illustration. He divides

hypertension cases into two classes, subacute and chronic.

Under the former he groups the hypertension of pregnancy, eclampsia and the often more or less transient states associated with focal infections, exophthalmic goiter, acute nephritis, etc., in which the pressure usually returns to normal after the clearing up of the primary condition.

These do not belong to the present discussion, because the hypertension in such cases is usually an unimportant and transient factor, although it may be noted in passing, that Hinselmann³ asserts that increased pressure in pregnancy is a valuable sign of impending eclampsia, and asserts that this syndrome is the result of a vaso-constriction due to a functional insufficiency of the vascular system. He would remove eclampsia and the kidney of pregnancy from the toxicoses and class them as overstrain of the vascular system.

It is of interest also as an etiologic suggestion, to note the observations of Peters⁴ of Amsterdam in regard to the effect of renal decapsulation in cases of acute nephritis in which that operation brought about prompt reduction of the increased blood pressure. The question cannot be answered at present, however, as to whether this lowering of the pressure, following the resumption of renal function usually promptly occurring after this operation, is due to the excretion of pressor substances abnormally retained in the blood, or to the mechanical relief of the increased resistance to the blood flow in the congested kidneys.

Under chronic hypertension Warfield believes that most cases may be divided roughly into three groups. Group 1 includes hypertension with chronic nephritis; in such the clinical picture is that of chronic renal disease and the high blood pressure is merely incidental. Albuminuria is variable, but persistent, casts are present, renal function is low, edema occurs sooner or later; the systolic pressure is often over 200 and the diastolic 120/140, and the termination is in uremia or cardiac decompensation according to which organ gives out first. The cases may be readily recognized and are to be considered and treated purely as cases of chronic nephritis.

Under the headings, Group 2, Essential Hypertension and Group 3, Arteriosclerotic Hypertension, Warfield and some others attempt to differentiate the two classes of individuals in whom the predominating symptom is high blood pressure, with an absence of renal symptoms, but with cer-

tain characteristics which he considers diagnostic and prognostic according to their style. Unfortunately, these distinctions are artificial and confusing rather than clarifying as they tend to suggest different varieties of disease, or separate disease entities. It would seem best therefore, to combine these two groups under the one term of essential hypertension to include all cases in which there is a definite persistent increase in the systolic or diastolic pressure unassociated with those recognized organic causative primary conditions such as chronic nephritis and some cases of cardiac hypertrophy resulting from valvular lesions.

The failure to recognize the secondary character of many of the symptoms of the hypertension syndrome is a source of much of the confusion and of the attempts to form various groups and types as representing different varieties of disease; the essential thing is, that there is a definite persistent period of increased pressure which sooner in some cases, later in others, leads to organic changes in the circulatory system and the organs dependent there on, with resulting disturbances dependent upon the type of individual and his anatomic weaknesses. If we were all built like the "wonderful one hoss shay" with each part of our circulatory system built as strong as each other part, we too would "run a hundred years to a day" growing old slowly, with moderate hypertension, with gradual evenly disseminated arterio-sclerosis resulting until an intercurrent infection would bring the termination.

As it is, however, one group of individuals may have inherited hearts of poor muscular quality, or through lack of proper exercise during adolescence, or through slothfulness and over indulgence are obese and have more or less fatty hearts, when such individuals reach the danger period, the fourth and fifth decades, and acquire hypertension, their hearts soon reach their limit of hypertrophy and dilation follows with all the symptoms of cardiac decompensation. This is not a disease entity, but merely the results of the persistent high pressure in individuals with inherited or acquired cardiac weakness.

Another group may have inherited arteries of poor quality; as Osler observed some years ago, there appear to be families with this anatomic weakness; or individuals through overexercise in youth, various infections, especially syphilis, dissipation, etc., may acquire weakened vessels, which under the sham of hypertension undergo prema-

ture, patchy, sclerosis, especially of the cerebral vessels, and cerebral hemorrhage is the usual termination.

A third group may be anatomically sound originally, but by their manner of living, especially in over eating and over drinking, by lack of exercise, with possible presence of focal infections, inattention to proper elimination through the skin and intestinal tract, may throw excessive work on the kidneys, and these organs already taxed to their limit, under the strain of hypertension slowly but steadily fail and uremia is the termination to be feared. The practical deductions to be drawn are that the period of essential hypertension of at present unknown etiology is extremely variable in different cases; in some it may last for years with no apparent interference with the general health, so that the discovery of a moderate increase in blood pressure alone, must not be stressed too seriously; on the other hand it must be remembered that its presence is always a source of increased body-strain which will seek out anatomic weaknesses, especially of the heart, blood-vessels and kidneys, and in the presence of such may lead to resulting serious or fatal impairment.

One must therefore obtain all of the available data in such cases, the family history, the personal history, occupation, habits of life, make a careful physical and clinical examination and so construct a clinical picture which will give an insight into the present status of the patient and the probability for his future. In this way many an individual may be relieved of his fears unduly excited by the knowledge that he has "high blood pressure," while others may be warned of the dangers in store and impending tragedies averted and perhaps indefinitely postponed.

ETIOLOGY

Practically everything that happens or can happen to an individual from birth, and even before birth, to middle life has been mentioned as a cause of hypertension, and very probably all of them contribute a portion to its production. Prenatal influences of heredity, the various diseases of childhood, the infections of adolescence, the character of home surroundings, dietary influences, under and over nutrition, occupation, habits, in fact all the vicissitudes of human life add their bit to the wear and tear of our organs and tissues, while some develop prematurely the hypertension syndrome with all its dangers, many others, paralleling them very closely in life conditions,

pass on to advanced years, with only the slower changes which we expect with old age.

A Study of 1,021 Cases of High Blood-Pressure and Related Impairments and Living Habits Compared with 13,335 Cases of Normal Blood-Pressure.

Physical Defects and Influential Living Habits.	Normal Blood-Pressure 13,308 white males (29 mm. above to 15 mm. below the stand- ard). Per cent all ages.	High Blood-Pressure 1,021 white males (20 to 40 mm. above standard for age). Per cent all ages.
High protein diet.....	38.4	38.5
Excess of tea and coffee.....	40.8	44.3
Alcohol, moderate.....	6.9	8.8
Alcohol, excess.....	.6	1.1
Tobacco, temperate.....	12.1	13.8
Tobacco, excess.....	33.1	31.0
Functional heart signs.....	5.6	9.6
Valvular defects.....	.8	2.4
Hypertrophy.....	2.2	7.8
Myocardial changes.....	.1	1.0
Rapid pulse (90 and over).....	7.7	18.7
Arterial changes.....	17.8	35.2
Tonsils, defective.....	26.5	26.9
Caries of teeth.....	8.1	9.7
Recession and pyorrhea.....	14.4	19.4
Heavy dentistry, X-ray advised.....	41.4	42.7
Insufficient dentistry.....	5.4	7.2
Gastric, acid stomach, etc.....	17.8	17.9
Constipation.....	39.2	38.4
Albuminuria.....	14.7	18.1
Casts.....	3.9	6.6
Pyurea (marked or persistent).....	2.7	3.5
Glycosuria.....	3.8	5.0
Overweight, 10 to 15 per cent....	9.3	11.0
Overweight, 15 to 20 per cent....	7.5	9.5
Overweight, over 20 per cent....	12.6	25.5

This is strikingly shown in the table drawn up by Fisk⁵ analyzing 13,308 cases of normal blood pressure in which systolic pressure was from 20 mm. above to 15 mm. below the standard for age and comparing them to 1021 cases in which the systolic pressure was from 20 to 40 mm., above the same standard for age.

In this table you see depicted many, if not most, of the factors often ascribed as causes of high blood pressure, such as high protein feeding, alcohol both in moderation and in excess, the use of tobacco in moderation and also in excess, defective tonsils, caries of teeth, recession and pyorrhea and other dental defects, constipation, glycosuria and overweight. In almost all of these the difference in the incidence in the association with high pressure is strikingly small, except in overweight, where there is enough to appear of some significance.

From the study of this table two questions arise. First, have these factors, with the exception of overweight any influence in the hypertension syndrome, if so what or how great an influence? Second, is there any specific, at present unrecognized, source of high blood pressure?

In reply to the first query, it is hard to disregard fairly long established ideas or theories; but we must be ruthless where the truth is concerned, especially if conservatism is holding us back from the proper treatment of such cases. It may be fairly assumed that all of these factors, alone or in combinations, act adversely, but the evidence points to the belief that they merely increase the wear and tear of the tissues, and that none of them is specific, or the important causative factor that has been believed. It may be that even overweight should also be included in the same category, as merely an adjuvant to the main underlying factor or factors, and that it acts largely mechanically in increasing the demands of the circulatory system, just as an oversize truck body on an undersized motor will cause excessive tension and wear on the engine, so in the obese a greater strain is thrown on the cardio vascular system from not only the actual carrying of so much extra weight, often on a small frame, but also by the necessity of forcing the blood through the tissues infiltrated with fat.

And so it is with many other factors which have been cited as etiologic factors.

Heredity has been mentioned by many writers, and while in endowing an individual with deficient kidneys, blood-vessels or heart muscle it may determine the character of the later stages of the clinical picture and lead to the final outcome, it is difficult to see how it influences the primary state of pure hypertension.

Endocrine influences have also attracted much attention in recent years. The knowledge of the action of pituitrin, adnephrin, the opposite clinical state and low blood pressure of Addison's disease, the appearance of the so-called climacteric hypertension in women, the often associated hypertension with hyperglycemia and hyperthyroidism, of necessity raised the question of internal glandular secretion influence. Endocrinology is a fascinating study and it is tempting to ascribe to the activities of these organs diseased conditions which are not as yet explained, but no definite knowledge has been arrived at as to whether excessive, deficient or imbalance of secretion of the ductless

glands play more than an aggravating or secondary action in the production of hypertension.

Psychic and nervous influences will elevate the blood-pressure undoubtedly; Daland, years ago drew attention to the effect of automobile driving, especially through crowded thoroughfares; E. König⁶ took the blood pressure of several hundred patients before and during surgical operations and found the pressure uniformly elevated before the anesthetic, dropping consistently under general anesthesia, but remaining high in operations under local anesthetics. He ascribed the rise in pressure to mental effect. Hediger is convinced that a mentally conditioned instability of the vascular system plays an important role in the development of hypertension.

Jansen⁷ and his colleagues state from observations on animals and man, that the main regulation of the blood pressure is on the organs controlled by the splanchnic nerves, and that the compensator action is impaired in patients with hypertension.

Kylin⁸ believes the whole condition (hypertension) to be a symptom of a disease of the vegetative nervous system.

Capillary spasm with or without nervous influence has also been mentioned.

In all of these the influence of the nervous system may be granted as part of the mechanism of increasing the blood pressure, but it has not been demonstrated as yet as a primary force, but appears to be rather acting secondarily to stimuli outside of the nervous system. In the face of so much confusion and so many theories, the most rational plan would seem to be to seek for the presence of some pressor substances, perhaps a normal constituent, but which if retained or accumulating in the blood from faulty elimination, has the effect of causing slow, persistent increasing of the blood-pressure.

F. Hogler⁹ in testing the action of blood plasma in the cat's intestine found that the blood plasma hypertension cases had a stronger action than that of normal individuals.

Maliwa¹⁰ in determining the protein cholesterol and bilirubin in specimens of blood drawing large quantities, 350 to 500 c.c., of blood, felt that he was able to make some suggestive distinction in cases of high blood pressure.

The most significant of all thus far would appear to be the report of the work of Ralph Major

and Walter Stephenson, in the Bulletin of the Johns Hopkins Hospital for May and June, 1924, in which they found a substance in the normal urine, methyl guanidine, which causes a marked and prolonged rise in blood pressure. This substance is a product of metabolism and if it is shown to be decreased in excretion in cases of hypertension, it will point very strongly toward its retention in the blood with consequent elevation of the pressure. Some such activity of this or other substance would explain the whole syndrome better than any other theory. Take a typical case: History—a young individual passes through adolescence and early adult life exposed to the average vicissitudes of life, is active, often athletic, has perfect elimination through the kidneys, intestinal tract and skin; at thirty there is a tendency to slow up, the individual becomes immersed in business or family cares; the body weight usually shows an increase, a proof of the decrease in metabolic activity; in average healthy individuals the earlier good habits carry them through this decade without apparent detriment. Forty arrives, the "dangerous age;" the tendency toward sedentary habits becomes more marked, the weight increases, constipation often becomes a habit, skin elimination is decreased with increasing load thrown on the kidneys, conditions certainly favoring a decreased output of the products of metabolism, and the retention of a theoretical pressor substance becomes not only possible but probable, with the development of an increase in the blood-pressure reaching from the higher limits of normal to an actual hypertension according to the amount of pressor substance retained. Hypertension once produced acts in a vicious circle and tends toward becoming persistent with slow but steady rise. During this stage any of the secondary factors, such as improper diet, sedentary habits, dissipation, tobacco, general or focal infections, constipation, endocrine disturbances, and especially overweight, by increasing or disturbing metabolism, increase retention, with consequent increasing pressure. Thus the primary stage, essential or idiopathic hypertension can be comprehended, the absence of organic basis understood and the variations in different individuals more or less explained. From this stage on, the progress is even more clearly defined; the hypertension once established, the heart, blood vessels and kidneys bear the brunt and inevitable organic changes ensue, the final clinical picture depending upon anatomi-

cal weakness inherited or acquired, intercurrent infections or other more or less accidental factors.

PATHIOLOGY

The pathology of the syndrome as a whole is chiefly the pathology of the secondary changes in the heart, blood-vessels and kidneys.

In the stage of essential hypertension, no definite pathology has been demonstrated. Attempts have been directed mainly toward histologic alterations in the arterioles and capillaries, Rouget cells, etc., but without definite results.

Warfield² says that in autopsies in patients with high blood pressure but dying from other causes, the renal tissue practically always shows an increase of connective tissue about the finer blood vessels, even in cases showing normal renal function during life. He continues, "The criterion is not what the morphologist finds but what the kidneys are capable of doing during life. Kidneys, which are functionally normal are for all purposes normal kidneys." This is rather a dogmatic assertion; much has been done in the study of renal function, but our criteria of normalcy are at present arbitrary, and one would be rather presumptuous to assert that we have reached our limits in this direction.

It may be that in these microscopic changes in the kidney are the causes of the impaired elimination of some such substances as methyl guanidin, or similar substances and that this is the true initial pathology of hypertension.

TREATMENT

The most interesting phase of the discussion of hypertension to the average practitioner is very naturally, the treatment, and yet an occasional review of the whole subject and especially of the investigations underway is necessary for a better understanding of the problems involved in the management of these cases and their treatment. We have drugs that will reduce blood pressure and the temptation would be to use them unless one grasps the fact that this is worse than useless, in that it is merely treating the effects without attacking the underlying cause or causes, and therefore vaso-dilators have little or no place in the treatment except in emergencies or in the later stages, to avert impending catastrophies. From such a discussion also, it is evident that there is no routine treatment for patients with hypertension, and nowhere in medicine is the dictum more applicable, "to treat the patient and not the disease," and nowhere else is there more de-

mand for sound judgment on the part of the practitioners.

A correct diagnosis must be made and this depends on much more than the mere use of the sphygmomanometer; a careful history is a necessity as is also a thorough physical examination, including the use of the ophthalmoscope if possible, the examination of the urine and the blood chemistry finally to complete the clinical picture and establish the diagnosis. By such means it is not difficult to recognize the early stages, the cases of pure essential hypertension, with at present no recognizable organic basis, and also the later stages with distinct evidence of pathology in the heart, blood vessels or kidneys, or combinations of two or all three, and estimate with a fair degree of accuracy the probable termination. This is of course, most readily accomplished in hospitals with laboratories at one's command, but a fair estimate at least may be made anywhere and without laboratory equipment except a sphygmomanometer, test tube and specific gravimeter, as to whether a patient is in the early stage of essential hypertension or in more advanced stages with secondary organic changes.

From the history, the younger the patient, the fewer the symptoms and the shorter their duration, the greater the chance of an early stage. One should never be content with one blood pressure reading; marked variations are characteristic of essential hypertension. The higher the readings and the more fixed at different times of the day, the more likely is it that the patient has passed beyond the early stage. Kylin¹¹ drew attention to this, as did also Fahrenkamp,¹² who advised taking the blood pressure twice a day at least, and in a series of three hundred and sixty cases he took the readings three or four times a day and in those with sclerosis of the kidneys, the blood pressure never went below 200 mm., even under rest and dieting, while in the essential hypertension cases, the pressure varied from 220 mm. to 160 mm. under rest, going up under mental stress, exertion, the use of tobacco, etc. In his belief such variations excluded kidney involvement.

Roemheld¹³ advocates taking the blood pressure in the morning before rising or eating as giving the most reliable insight into the actual conditions in the circulation. He believes that if the pressure at that time is approximately normal, the hypertension is probably merely functional.

If on physical examination the heart is not

found to be enlarged, or but slightly so, the process can not have been of long duration and the evidence is in favor of essential hypertension, but marked enlargement, points toward the later stages. Palpable radials are not usually present until the case is fairly advanced, hence this condition is not found in the early stage, or in pure essential hypertension.

In the ordinary urinary examination, the presence of albumen, persistently present or in any quantity, indicates the kidney involvement and the secondary stage of hypertension. The absence of albumen, however, does not exclude sclerosis of the kidney, and in such cases the blood chemistry and renal function tests are of great value. If these aids are not available, the simple taking of the specific gravity of the urine voided at different times of the day is of great assistance. Should the specific gravity be found to be persistently low, practically fixed within a few degrees, renal sclerosis may be fairly assumed to be present.

If the ophthalmoscope shows changes in the vessels of the retina similar changes may be assumed in the finer vessels elsewhere, and beginning sclerosis taken for granted.

The greatest difficulty in the treating of cases of hypertension is not in the recognition of the condition or the stage of progress, but in the management of the patient and in a certain degree, the attitude of mind of the practitioner. The latter, especially in the early stages, may go to one or another extreme and either make light of the condition and practically ignore it, or, if he is an alarmist, he may frighten his patient unnecessarily and make him a neurasthenic.

Even in the later stages the treatment is too often perfunctory until impending tragedy compels serious consideration. This is partly due to previous unfortunate experiences in trying to manage similar cases, for it is often exceedingly difficult, in the absence of pain and other definite discomforts or symptoms to make a patient realize that there are dangers in store for him when those dangers are perhaps some years ahead, and it is even still more difficult to induce the average patient to take steps to avert the trouble.

Human nature has changed but little in 3,000 years, since Naaman went to consult Elisha and was "exceeding wroth" because instead of enacting a spectacular miracle, the prophet sent him forth to work out his own cure.

People come to us seeking relief of high blood

pressure; they want some wonder working medicine or other treatment that will cure them without any effort on their part, but there is no such treatment. They too, often resent and refuse to submit to changing their regime of life, restricting their diet, easing up in their business activities, refraining from excesses, taking more exercises until actually forced to do so by evidence of failing kidneys, a laboring-heart, or a cerebral hemorrhage.

When, therefore, a patient of forty odd years consults us and we make a diagnosis of essential hypertension, the situation should be thoroughly explained in a common sense way, not to scare him into neurasthenia, but that he may understand what the future has in store unless he take steps to avert the dangers ahead of him. The family history, the physical findings and habits of living should be thoroughly studied. Should he have foci of infection, they should be cleared up if practicable, not with the promise that such procedure will "cure" his high blood pressure, but that in themselves they are sources of danger and they may be aggravating his condition. His business activities should be curtailed, as the worry and tension of modern business life undoubtedly aggravate a rising blood pressure. This does not mean that he should retire from business, but simply to fit the load to a machine that is showing signs of wear.

DIET

Next, the diet, and many sins have been committed in the way of dieting this class of patient. It is so easy to say, "eat no meats" that this has become a routine treatment. In the table given above, the per cent of hypertension eases in heavy protein eaters is negligibly greater than in those with normal blood pressure and similar habits, and Strouse and Kelman¹⁴ report some very interesting observations in feeding hypertension cases with liberal amounts of protein and even with that anathema, strong stock soups, with no increase of blood pressure. Herrick¹⁵ gives evidence along the same lines in his account of six patients who consulted him for "high blood pressure"; they had all been put on a non-protein diet, and as a consequence had made up the deficiency with carbohydrates, and all felt worse, their weight had increased and their blood pressure was greater than before. He gave them a fairly liberal allowance of proteins, but reduced their carbohydrates, and limited their total intake of food in calories to about three-fourths of their normal requirement.

They all showed prompt improvement in subjective symptoms, their weight decreased and their blood pressure was markedly reduced.

In all probability the non-protein diet was first introduced in former days when the hypertension cases were only recognized in the late stages when kidney changes were practically always present, and later the same diet was gradually extended to all hypertension cases.

In the same way, probably, the salt free diet was tried with apparent benefit with hypertension with renal symptoms. O'Hare and Walker,¹⁶ however, recently carried out some striking observations in regard to the giving and restricting of salt in essential hypertension with the conclusion based on careful clinical study and blood chemistry analyses, that salt plays little part in vascular hypertension.

In other words, as has been suggested, "It is not what one eats, but how much!"

The general plan of diet in an essential hypertension case should be a fairly balanced diet of easily digested food, containing sufficient vegetable fibre to stimulate good intestinal action, and rather under the caloric requirements of the individual, especially if he be inclined to overweight.

Elimination. As has been suggested the majority of hypertension cases are throwing an excess of the load of elimination on the kidneys to the neglect of the intestinal tract, the skin and the lungs. The first of these last named, may be helped by the diet, but all the emunctories will be aided best by regular systematic exercise. Some individuals resort periodically to various health springs and indulge strenuously in massage, hot baths and aperient waters. They often feel much better for a while, and indeed such measures accomplish a great deal and may be recommended when the patient will not submit to other advice, but they cannot compare in results to properly graded, regular systematic exercise, the year round. Unfortunately, while this should appeal to intelligent people as rational advice, is usually like the advice of bathing in the river Jordan to Naaman! In these days of strenuous business life the saving of time has become a fetish, and rapid transit facility and especially the automobile, threatens to destroy the art of walking, which is one of the best exercises for the middle aged individual. If hypertension is increasing it may well be that the automobile, which threatens to make us a sedentary race, is largely responsible.

Other methods of treatment have been suggested, among them electricity in various ways and by artificial light. The results are transitory and unsatisfactory. Peemöller¹⁷ in reviewing these methods of treatment, states that in the use of the d'Arsonval's apparatus and similar electric devices, the real cause of the lowering of blood pressure is the formation and inhalation of gas (nitrous oxid) generated by the apparatus. Hence these appliances are simply another method of applying nitrites, and the effect is purely evanescent and of no real benefit.

There is no treatment that can take the place of the three main principles, to lighten the business load the patient is carrying, a common sense diet, and elimination, chiefly by systematic exercise according to his ability.

In the advanced cases with secondary organic changes, each case must be considered on its merits and special attention directed toward the structures showing the more serious signs of overstrain. In some cases cerebral symptoms suggest a threatening hemorrhage, and a prompt reduction of the blood pressure may be indicated through venesection; this is but temporary relief which must be followed by rest, mental and physical elimination and diet modified according to the special indications. In decompensated heart cases or in threatening failure of the kidneys, the hypertension is disregarded until after the immediate menace has been relieved.

It is needless to stress the necessity of securing the cooperation of the patient, but it is just as well to emphasize that in obtaining this cooperation much depends upon the mental attitude of the practitioner and upon his diet, firmness and good judgment.

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Medical Treatment of Empyema with Special Reference to Chemotherapy*

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Interest in diseases, like interest in art, literature and public affairs, runs in certain definite cycles. A few years ago following the discovery of salvarsan, interest was focused upon syphilis in a way it never had been before. During the past two years as the result of the discovery and the use of insulin, the study of that ancient and almost prosaic disease diabetes mellitus, has excited and thrilled the entire medical world. Certain infectious diseases such as influenza because they appear in an epidemic and periodic manner, produce definite recurring cycles of interest. After this interest has abated somewhat we can then look back and appraise the results of this period of intensive study.

During the World War physicians had an unusual opportunity of studying medical problems. Problems of nutrition involving large armies or even the entire population of certain countries demanded accurate and immediate solution. Certain infectious diseases, notably typhus, influenza, pneumonia and meningitis, were seen in such numbers as probably will never be seen again by the physicians of this generation.

At this time an old and somewhat commonplace disease, empyema, forced its unwelcome attention upon the medical profession. Before the war the average physician had not had any very great experience with empyema. The occasional case that wandered into his practice was diagnosed by the aspiration of a small quantity of pus, turned over to the surgeon and operated upon. Some recovered, some died and the mortality rate was largely a matter of interest to the surgeon. Many cases of neglected empyema also appeared at clinics from time to time—neglected because the study of empyema itself had been neglected.

The treatment of influenzal empyema by the dictum of "when you find pus resect a rib" was followed by an appalling mortality. The mortality rate of 84 per cent at Camp Funston and of 65 per cent at Camp Wheeler emphasized the dangers of early operation in empyema, and made many physicians wonder if we were not dealing with an entirely new type.

While the very high mortality rate observed in the army camps was due in part to the severity of the infection, yet previous studies had already shown that empyema was anything but a benign condition. Moschowitz, who studied the cases in Mt. Sinai Hospital in New York, from the period 1904 to 1914, found an average mortality of 28 per cent. He collected further statistics which show that the death rate in empyema before the two great influenza epidemics varied from 18.9 per cent (Lilienthal) to 55 per cent (Lavrow). These statistics prove the great seriousness of empyema, in the decade preceding the influenza epidemics.

EARLY OPERATION DISASTROUS

The disastrous results of early operation in influenza empyema which were so uniformly noted, constitute the most important single observation on this subject. And conversely the marked improvement in the mortality rate following delayed operation in these cases, remains the most important therapeutic lesson learned in regard to this disease.

At the time the value of delayed operation was coming to be gradually appreciated, several observers introduced less radical methods of treatment. Mozingo irrigated the chest with Dakin's solution through a catheter and obtained excellent results. Manson treated 43 patients by repeated irrigation with chlorinated soda through a catheter. All of his patients were cured by this method and no secondary operation was necessary.

*Read before the Inter-State Post Graduate Assembly at Milwaukee, Oct. 27-31, 1924.

During the influenza epidemic of 1919 and 1920 forty cases of influenzal empyema came under my observation. In most of these cases the empyema appeared within four or five days after the onset of the pneumonia and frequently even earlier. The fluid at first was fibropurulent but rapidly, often within twenty-four hours became frankly purulent. Because of the evident co-existing bronchopneumonia early operation was not attempted. The alternative presented itself of either merely waiting until operation seemed safe or trying in some way to influence favorably the course of the empyema.

Since the investigations of Churchman had shown that gentian violet has a marked bacteriostatic effect upon gram positive organisms and as we were dealing with streptococic and a pneumococic infection we began treating these cases with instillations of gentian violet.

GENTIAN VIOLET TREATMENT

The technique of this treatment was very simple. The chest was first aspirated with a needle, all of the fluid possible withdrawn and then 100 c.c. of an aqueous solution of gentian violet was introduced into the chest and allowed to remain there. We began at first with a very dilute solution 1:5,000 and in the succeeding injections increased the strength rapidly to 1:1,000.

The results of this treatment were very encouraging. Twenty-seven patients were treated by this method and fourteen or more than one-half cleared up completely and no subsequent operation was performed. In eight patients the treatment was only partially successful, later operation being necessary. Five patients whose empyema was complicated by a co-existing bronchopneumonia did not respond to this treatment and died.

In most of the cases where a later operation was necessary we felt that operative procedure had been simplified by this treatment. I remember one patient particularly who was desperately ill with a bilateral empyema whose respirations often were as rapid as eighty per minute, and who it seemed could not possibly recover. Under the gentian violet treatment the empyema on one side cleared up completely so that a later operation on the other side was carried out with no risk. This patient made a complete recovery.

This experience during the influenza epidemic suggested a further trial of this method in empyema associated with the usual lobar pneumonia or bronchopneumonia. We hoped that perhaps

empyema produced by the less virulent pneumococcus and occurring apart from such an appalling epidemic would give us even better results.

A short time after the influenza epidemic I saw a case of empyema associated with pulmonary tuberculosis. The patient was acutely ill, had a high fever and the aspirated fluid showed a pure culture of staphylococcus aureus. This patient was treated with gentian violet and following a single instillation of a 1:500 solution, the pleural fluid became sterile on culture and remained so. Soon after this observation Waters of the Loomis Sanitarium reported two cases of tuberculous empyema treated with gentian violet. The fluid of these patients showed staphylococci and pneumococci both of which disappeared following treatment. I have recently treated by this method two additional cases of tuberculous empyema who showed staphylococcus aureus in the pleural fluid. In both instances the fluid became sterile on culture but both patients unfortunately had a marked pyopneumothorax with collapse and carnification of the lung, and subsequently died. While this treatment in my cases of tuberculous empyema did not produce a cure, it did apparently prolong life and what is particularly striking, it demonstrated the marked bactericidal or bacteriostatic effect of the dye.

In 1922 my colleague, Dr. Robert C. Davis, treated eighteen cases of empyema with gentian violet. Fifteen of his cases were in the seropurulent and three in the encapsulated stage, and all but one were caused by the pneumococcus, the exception being a case of streptococic empyema. All of his patients recovered without rib resection. His results were much better than in my earlier series, due, I believe, to the fact that treatment in his patients was instituted earlier and also because his cases were mostly of pneumococic infection and not of the virulent streptococic type I had encountered.

SUMMARY OF RESULTS

During the past two years Dr. Davis and I have continued our studies on this subject. Empyema has not been as prevalent as during the influenza epidemic and it has also appeared in a less virulent form. Our results have been on the whole very good but there have also been a few failures. A summary of all of our cases shows that fifty-seven patients with empyema have been treated with gentian violet. Forty-five cleared up completely and twelve were operated upon. In all of

the failures treatment was not instituted in an early stage, and this we believe was largely the cause of the poor results. In some instances this delay in treatment was because the condition was not diagnosed sooner. In others, the treatment was not suggested until the empyema had been present for some time and other forms of medical treatment including frequent aspiration and irrigation with Dakin's solution had failed.

We cannot emphasize too strongly that this treatment, if it is to be successful, must be instituted early. If we wait until extensive adhesions or encapsulation have occurred, the problem becomes to a considerable extent a mechanical one and surgical treatment is indicated. Adhesions and encapsulation make thorough aspiration and irrigation with gentian violet very difficult. Some patients, however, even in this stage have cleared up under the gentian violet treatment but in most instances operation with a loosening up of the adhesions and drainage of the encapsulation has been necessary.

The average number of aspirations necessary in our first series of patients was fourteen. In Davis' series the number of aspirations varies in most cases from four to fourteen. In my later cases the number of aspirations has been much less, varying from three to seven.

No untoward symptoms have ever been observed following the instillation of the gentian violet. Most of the patients treated at some time have spat up small quantities of the dye. The patient should be warned in advance of this probable occurrence or he may be alarmed when he coughs up sputum of a deep violet color. This phenomenon shows that there is usually a connection between the pleural cavity and the bronchus and is evidence for the correctness of Moschowitz's view that empyema takes its origin from a small abscess in the pulmonary tissue which ruptures, infecting the pleural cavity and establishing communication between this cavity and the bronchus.

Gentian violet has marked advantages over most of the substances suggested for intrapleural instillation since it is practically non-irritating, non-toxic and yet highly bacteriostatic. Churchman has shown that *in vitro*, dilutions as high as 1 to 1,000,000 inhibit bacterial growth, and this effect is also quite marked in the pleural cavity. In one patient seen recently with a streptococcus empyema the fluid became sterile following three instillations and in another patient with a pneu-

mococcus empyema the fluid was sterile after one instillation.

In our earlier cases we used a very dilute solution of 1 to 5,000 for instillation but later we have employed solutions of 1 to 500 and 1 to 250. These stronger solutions have a greater bacteriostatic effect and are apparently neither irritating nor toxic.

The question is frequently raised as to whether repeated aspirations of the pleural cavity without instillation of gentian violet would not cure empyema. In light of the experiences of McCrae and of others it seems quite probable that repeated aspirations alone may at times clear up an empyema. The use of gentian violet, however, we believe, hastens this process and often cures patients who would not clear up under simple aspiration alone. Since gentian violet produces no bad effects and is so highly bacteriostatic we believe its use is indicated in such patients.

One of the most important and difficult questions to decide is when to operate if operation seems necessary. Our rule has been to give the gentian violet treatment a trial for two weeks and then if the patient is not clinically improved, if the temperature has not shown a marked and progressive fall and if the pus is not sterile, then rib resection is indicated.

Some critics of the method have suggested that our best results are obtained in patients who do not have a thick pus and are therefore not true empyemas. This criticism, we believe, is not valid. Moschowitz has shown that in empyema there are three stages: the formative stage, the acute stage and the chronic stage, which is the stage of frank pus.

Our answer to these critics is that we treat most of our patients in the formative and in the acute stage and the majority of them are cured before the stage of frank pus is reached.

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The Interpretation of the Cough Symptom*

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Symptoms, or the reaction of the tissues to injurious agents, have been the chief guides in diagnosis since the beginning of the medical era. The investigation of symptoms has not, however, received the close attention it deserves, mainly because of the prevalent belief that the requirements of diagnosis are generally met by simply noting the presence or absence of symptoms, and that a clear conception of their mechanism is not essential. The reasons for this lack of interest or enthusiasm are on the one hand, a neglect to appreciate the true value of symptoms in distinguishing disease processes through knowledge acquired by a study of their production; and, on the other, the great difficulty encountered in pursuing this line of research, chiefly because methods for such investigation do not exist. The progress made in physiology, bacteriology, chemistry, and allied sciences has been as rapid as it has been remarkable, especially when compared with the tardy advance in symptomatology. Yet, with this high attainment in the so-called laboratory studies, none of us would venture the opinion that the facts acquired by an inquiry into symptoms are less valuable than those obtainable by laboratory methods.

The early manifestations of disease, especially in their acute forms, are chiefly those of disordered function, when remedial measures offer the best chance of success. The later stages are characterized in the main by alteration of structures.

The act of coughing consists essentially of a violent expiration, the air current being driven swiftly and forcibly through the bronchi, trachea, larynx, and mouth for the purpose of removing material from the air passages. As a rule, a deep and often quick inspiration precedes the expiration. Just before the expulsion of air, which is the main feature of the act, the vocal bands are approximated through the contraction of the adductor, constrictor or phonatory muscles of the larynx—the lateral crico-arytenoids, the arytenoids, and the thyro-arytenoids. The expiratory phase begins just before the separation of the approximated vocal bands, thereby causing the intrapulmonic pressure to rise momentarily. When the required tension is reached, the larynx opens, and the air sweeps out with the production of the characteristic cough sounds. Their acoustic qualities are due to the intensity of the air current, peculiarities in the tension of the vocal bands, differences in the diameter of the air passages, and variations in the consistency of material contained in the respiratory tract.

The muscles effecting the forcible expiration

*Read before the Inter-State Post-Graduate Assembly, Milwaukee, October 27-31, 1924.

bring into action abdominal and thoracic groups; the muscles of inspiration—the diaphragm and intercostals; the muscles closing the glottis—the adductors of the larynx. They are governed by nerve mechanisms which concern:

(1) Spinal centers and their efferent nerve fibers.

(2) The inspiratory and the expiratory centers in the medulla, which excite and coordinate spinal centers.

(3) The adductor laryngeal center and its efferent paths.

(4) The various afferent nerves which stimulate the inspiratory, expiratory and adductor centers.

(5) The cerebrum.

The existence of a special coordinating center controlling the act is still a matter of controversy. The evidence at hand lends weight to the opinion that such is not the case. Coughing is generally volitional. When occurring during sleep, in soporous states, and in violent paroxysms, its purely reflex nature is suggested. It is difficult to determine to what extent it is an unconditioned or pure reflex; or to what degree it is a conditioned reflex, that is, one intensified by cerebral activity, perhaps volitional, since sensations of discomfort referred to the throat are often present.

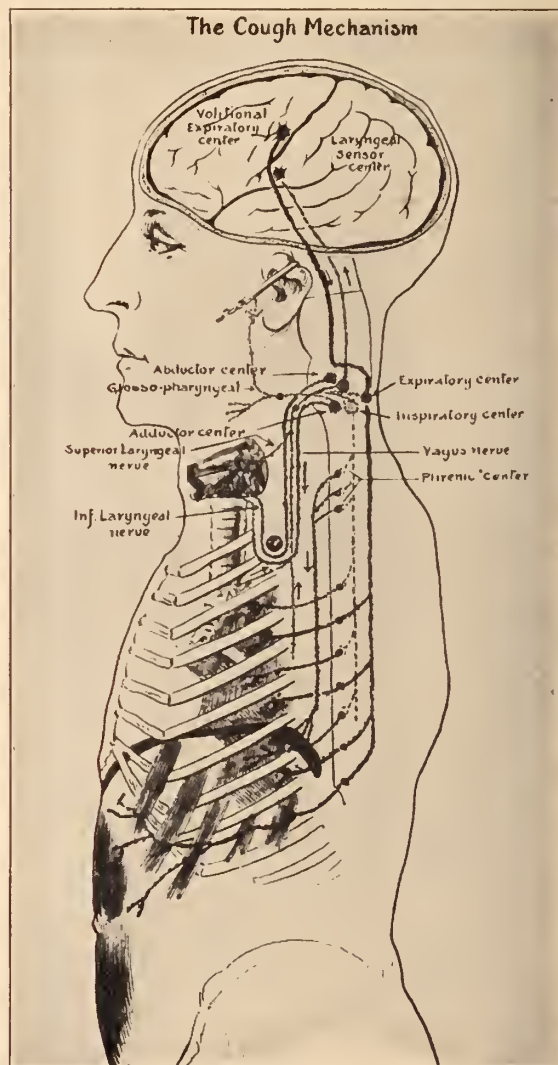
MECHANISM

Its mechanism appears to be as follows: In the unconditioned or purely reflex cough, the irritation to the afferent terminals being of a mild character, the nerve impulses are conveyed to the medulla, causing: (1) Increased activity of the inspiratory center; (2) stimulation of the adductor or constrictor center of the larynx; and (3) increased excitation of the expiratory center. (a) The inspiratory muscles, (b) the adductor muscles of the larynx, and (c) the expiratory muscles contract in response to this stimulation.

With more pronounced irritation, especially when located in the interarytenoid region (supplied by the superior laryngeal) impulses of greater intensity are transmitted, which not only reach the medulla where they stimulate the centers just named, but some of them pass upwards to the cerebrum where sensations are evoked and recognized as tickling, distress or pain referred to the throat. In the cerebrum, nerve impulses are now discharged and transmitted to the medulla. A purely reflex cough is converted into a more or less

volitional act by the descending impulses which reinforce the function of the centers activated by the ascending impulses—conditioned reflex. The combined effects of the ascending and descending impulses intensify the action of the muscles innervated by them.

In volitional cough, impulses descend from the cerebrum to the centers in the medulla.



CAUSES

It is not the object of the author to attempt a systematic discussion of cough in various diseases in which it is symptomatic, but rather to emphasize its importance in some morbid affections with the hope of throwing light on its mechanism and clinical interpretation. Bedside studies, carried out in a painstaking manner, are the chief, if not the only, means for the solution of these problems.

The regions in the body susceptible to stimula-

tion, and the nature of the stimulus effecting the reaction, have been the subject of extended investigations, which, however, have not clearly elucidated this problem.

Cough may be produced by irritation in certain parts of:

- (1) The respiratory passages — larynx, trachea, bronchi, pharynx, and naso-pharynx
- (2) The pleura
- (3) The mediastinum
- (4) The external auditory canal

In reflex cough, the interarytenoid region is the chief area from which afferent impulses arise. Slight irritation of the normal mucosa in this locality by a variety of substances is followed by paroxysms of varying severity. This action is augmented when the organ is the seat of congestion and acute inflammation.

In pulmonary disease, as chronic ulcerative phthisis, when the products discharged from the diseased lungs and bronchi reach the larynx, they provoke coughing as a rule. These paroxysms often continue until all the phlegm is expectorated.

Evidence has been brought forth showing that the tracheal mucous membrane is capable of evoking the act with certain forms of stimulation. Sudden pressure of a bronchoscope on the mucosa of the trachea produces it, but this excitation is quickly tolerated, shown by cough subsidence without removing the instrument. When, however, a new area is touched, it returns. This low state of sensitiveness stands in strong contrast to that of the interarytenoid region, where the irritation is resented, and must, as a rule, be removed before the seizure ceases.

The dry harsh cough so conspicuous in the early stages of many cases of influenza appears to have a tracheal origin. A clearer understanding of its mechanism in grippe points the way to better management in therapeutics.

Stimulation of the larger bronchi, especially at the bifurcation of the trachea, appears capable of causing the reflex. These structures have a low state of irritability. The morning paroxysms in patients suffering from chronic pulmonary tuberculosis are probably of bronchial origin. On awaking, when the individual changes from the dorsal to the sitting position or turns on his side, the secretions accumulated during the night suddenly shift and effect stimulation.

It is not known whether the reflex can be evoked by excitation of the smaller bronchi.

The question whether the vesicular structure of the lung is supplied with afferent nerve terminals is also impossible to answer definitely. Clinically, a negative opinion is offered in acute cases of pulmonary consolidation characterized by an absence of bronchial exudate, which run an atussive course. The author observed an interesting example of this kind occurring in a young woman who had an infiltration of the upper portion of the right lung, readily demonstrable by physical signs and X-ray examination. Constitutional symptoms, fever, and emaciation were present. After prolonged treatment in a sanitarium, recovery followed. At no time in the course of her illness did cough occur. Positive evidence of the existence of the symptom in parenchymal pulmonary disease is wanting, as it is impossible to exclude pleural and respiratory tract stimulation.

Painful, dry cough is a cardinal symptom of acute pleural disease. It cannot be stated whether it has its origin in the costal or visceral pleura, or the subpleural tissues, as the afferent nerve terminals supplying these structures have not been satisfactorily demonstrated in relation to this reflex. Its occurrence during aspiration of a pleural effusion, after much of the fluid has been removed, is a sign so well known to the clinician that it needs no special comment.

In mediastinal disorders involving the inferior laryngeal nerve by tension or pressure, as in aneurism of the arch of the aorta, it is an outstanding phenomenon. Text books generally state that the ringing, dry cough of aneurism is caused by pressure on the recurrent laryngeal nerve, without offering a satisfactory explanation of its mechanism. Since the inferior laryngeal has essentially a motor function, nerve impulses are carried to the larynx, not to the medulla. Therefore, this does not entirely elucidate the problem. If, however, the symptom is analyzed more closely, it will be observed that with disordered function of the muscles of the organ, greater susceptibility of the nerve terminals of the superior laryngeal is acquired. The characteristic acoustic qualities of aneurismal cough are due largely to perturbations in the action of the laryngeal muscles.

The so-called ear cough is rarely diagnosed by the general practitioner, although sometimes a most distressing ailment. Without careful search,

its cause is easily overlooked. It can be demonstrated in many individuals by lightly applying a probe to certain areas of the wall of the ear canal. The author had under his care a young woman suffering from violent attacks of cough of several years' duration, the nature of which was obscure. Fear was entertained that she was tuberculous, since her husband was the victim of this disease. A careful survey of her case relating to the pulmonary system gave negative findings. A highly sensitive inflammatory condition of the walls of the external auditory canal was the cause of her complaint. Appropriate treatment quickly caused a disappearance of her cough.

I have never been able to satisfy myself of the existence of a gastric origin for cough, nor from stimulation in disease of any of the abdominal or pelvic organs. The afferent nerve terminals appear to be confined only to the thorax, respiratory passages, and ear.

EFFECTS

A reaction of the tissues to noxious agents is injurious, protective or defensive, or indifferent. Within short periods, the degree of response may vary so as to alter its usefulness or convert it into a harmful act. Tissue peculiarities, constitutional and local, are dominant factors in modifying reflex response. The influence of toxic states is generally depressive—of acute inflammatory lesions, irritative.

The amount of expectoration, the readiness with which it is removed, the dangers of retention of material in the air passages, and the influence of overstress on the lungs and circulation are matters too well known to the physician to require detailed description.

The efficiency of the act depends on the removal of phlegm from the air-passages without undue expenditure of energy. When caused by pathological disorders of the pleura, mediastinum, and auditory canal—regions which have no direct connection with the air-passages—its favorable influence, expressed in terms of sputum discharged, is entirely wanting. The severe racking paroxysms, so characteristic of the early stage of laryngitis, tracheitis, and bronchitis, before exudation takes place, often yield promptly to the influence of sedatives, which prevent injury from mechanical disturbances. One of the perils of influenza from the acutely inflamed trachea is the frequent, dry, noisy, and often painful cough, out of all propor-

tion to the necessity to expectorate. Its dangers are not fully realized in the production of complications of this disease.

In cough, interference with the filling of the heart and retardation of the flow of blood through the vessels always occur, and, when pronounced or protracted, are responsible for cardiac asthenia, venous congestion, and bleeding. Conjunctival hemorrhage—the blood-shot eye—is well known to all of us. Serious accidents to the circulation are perhaps of more common occurrence than generally supposed. We can recall many cases which display the malign influence on the vascular system when the seizures are in excess of the needs to remove secretions, or when they are weak and frequently repeated, but lack strength sufficient to raise sputa high enough to be expelled. The author had under his care a young woman, who, at the age of nine years, had an attack of whooping cough, which caused extensive retinal hemorrhages. Unfortunately, the outcome was almost complete, permanent blindness. Its effect on the myocardium is shown in the case of a middle-aged man in whom profound myocardial weakness with low blood pressure was the sequel of a protracted cough. Recently, I saw a middle-aged woman suffering from chronic valvular disease, in whom severe paroxysms prevented readjustment of compensation. The use of heroin, after other cough sedatives had failed, gave her relief and comfort, and finally was the means of strengthening the myocardium. The attitude of the profession in urging the passage of the measure, now enacted into law, prohibiting the importation and manufacture of heroin, is difficult to comprehend.

In computing the results of any plan of treatment in pneumonia, as with sera and pneumococidal drugs, due consideration must be given to the effects of mechanical disorders brought about by structural changes in the respiratory organs. The consequences of severe cough in favoring the spread of pleural infection, in aggravating pain, in causing wakefulness, in increasing the strain on the circulatory apparatus, are factors which influence the course of this disease and its mortality.

Disturbances of intra-abdominal pressure, from prolonged paroxysms, produce vomiting. The development of hernia is also due to this cause. A serious complication occasioned by the powerful expiration of the act was brought to my attention

in the case of a physician, aged fifty-one, who contracted whooping cough. His illness was severe and the paroxysms were of such violence that three ribs were fractured. The diagnosis was confirmed by the X-rays. Although more than a year has now elapsed, he still has attacks of coughing when he leans back in a chair so as to cause pressure over the area which was the seat of the fracture. The explanation, I believe, is found in

pleural stimulation which arises at a point where adhesions exist.

Extra-pulmonary varieties of cough—pleural, mediastinal and ear—are wholly or in the main injurious, and their diagnosis calls for special care.

The author expresses his thanks to Doctor Albert P. Brubaker, Professor of Physiology in the Jefferson Medical College, for valuable suggestions relating to the physiology of this subject and for the preparation of the diagram.

Untoward Reactions During Antileutic Treatment of the Tuberculous*

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These comments are a contribution in the light of the recent studies of Stokes to the problem of the occurrence of unfavorable reactions, either systemic or cutaneous or both, in syphilitic patients after the injection of neoarsphenamine. It has been the general impression that the presence of an infection like chronic pulmonary tuberculosis predisposes the patient to untoward reactions following either the initial dose or a number of doses of the arsenical given intravenously. Also, that intravenous treatment with other drugs in the same type of patient is not accompanied by any significant reactions.

The following case developed after a number of doses and occurred as a stormy sequel to the eighth intravenous injection of neosalvarsan. Doctor E. J. Kehoe followed the clinical progress in this case.

A white man, age 45, but having the appearance of a man over 60, was admitted to Major Hedding's service with a diagnosis of chronic pulmonary tuberculosis, moderately advanced and slightly active. Tertiary syphilis and arteriosclerosis were added to the diagnosis after his examination here. He had a hard chancre 26 years previously. The prognosis of Dr. Francis P. Dolan as to his pulmonary condition was "Guardedly Favorable," but it was believed that along with a negative sputum the clinical signs of syphilis in his nervous system and circulatory apparatus might indicate syphilitic infiltration of his lungs as the major etiologic factor of his condition. On this basis and also because previous hospitalization had produced no

marked improvement in his physical state antileutic treatment was instituted.

When this treatment was begun on February 16th, 1924, he was 23 lbs. underweight and within a few weeks he gained 8 lbs. In a period of eleven weeks a total of 6.7 gms. of neoarsphenamine distributed into 8 doses was injected. These doses were alternated with mercury cyanide gr. 1/12 to gr. 1/4 intravenously.

It was noted at once by Dr. Kehoe that his physical and nervous condition improved. The terrific headaches and urinary incontinence disappeared, and there was a gain in both weight and strength. In fact the improvement in his condition warranted a transfer to an Ambulatory Ward. There was a history of alcoholism.

The last dose of 0.9 gm. was given May 3, 1924, at 11 a. m. By 3 p. m. the patient noticed a leg edema. Chills developed shortly after. About eight hours after the injection the skin began to itch around the border of the scalp. There was no increase in temperature. The second day a generalized flush with increase in the pruritus was noted. On the third day he was covered with a distinct erythematous rash. This gradually became macular in character of a boiled lobster color, while the itching was intense and absolutely prevented sleep. There was marked tremor even in the muscles of the face; and a stomatitis caused considerable suffering. Temperature at this time was 99.2, pulse 88, and a trace of albumen was found in the urine. On the fifth day adrenalin was given hypodermatically and the injection was followed very promptly by a fading of the rash, and relief from the maddening itch. The adre-

*Publication approved by Col. T. S. Roach, Medical Director, Northwestern Branch.

nalim was repeated several times and after each administration a severe rigor occurred which continued for about 15 minutes. At no time was there any nausea, vomiting, or diarrhoea. Bromides and bicarbonates gave no relief. Epidermal thickening developed, and a fine branny desquamation could be seen over the entire body. The restlessness persisted, and was increased by a photophobia. As desquamation in large flakes occurred over the neck and extensor surfaces a vesiculopustular eruption developed and by the 7th day staphylococcal cutaneous pockets were formed in denuded areas. Weakness was pronounced. On the 13th day, there was hyperaesthesia, hypertonicity, and greater thickening of the skin. The patient became lethargic. Blood examination showed 6,970,000 R. B. C.; 17,350 W. B. C.; 125% hemoglobin, and relative red blood cell volume of 61% due to the anhydraemia. There was an increase in urinary albumen. Exitus in deep coma occurred on the 17th day.

The blood picture showed an achromia. The differential count looks normal when considering only the percentages: polymorphonuclears 63%, small lymphocytes 26.5%, large lymphocytes 4.5%, transitionals 5%, and basophiles 1%. But on closer examination it is seen that 49.5% of the total count is made up by a large white blood cell with a small, crescent shaped, dark staining, slightly lobulated nucleus thrown to one side of the cell, in fact almost to the periphery. These we included with the polymorphonuclears, and would be designated by some haematologists as the band-form (Stabkernige) polymorphonuclear.

This case was the most severe reaction seen among our syphilitic tuberculous patients, but our medical staff had repeatedly commented on the fact that reactions of all grades—both cutaneous and systemic—seem to occur in greater percentage among them than in non-tuberculous individuals in private practice. Even with smaller doses of neosalvarsan this seems to confirm the observation of Stokes and Cathcart¹ that the syphilitic individual with an intercurrent or chronic infection is possessed of a peculiar "sensitivity or allergic instability" that predisposes him to postarsphenamin reaction. Those acquainted with the psychology of the tuberculous individual will not be misled by subjective symptoms and will pay more attention to the effect in men who are quite phlegmatic.

The measure of antiluetic treatment is determined by an improvement of the individual in (1) physical condition, or (2) the disappearance of obvious luetic lesions, or (3) the appearance of a negative Wassermann reaction. Such indexes of improvement especially (1) and (3) prevailed in practically nine out of every ten cases treated here. At this time we wish to call attention to the fact that *cautious* doses are not necessarily *curative* doses. Sterilization from a luetic infection is directly dependent upon effective concentration of the arsenical in the body. It has not yet been proven that a luetic infection in a tuberculous individual is present in a milder degree than in otherwise uncomplicated syphilitics. It is generally known that a certain amount of arsenical is needed to treat the latter efficiently, and this has been designated the total curative or effective dose. Therefore, it may be said, why treat the tuberculous individual at all if one is not going to treat him thoroughly.

Post-treatment reactions in tuberculous individuals can be differentiated into those that occur (A) as syphilitic individuals and (B) as exacerbations of some tuberculous symptoms—particularly increased pulse rate, greater weakness, and rise in temperature. With this classification as a guide one is not so easily deterred in the treatment of the tuberculous. In our cases, a few reacted by a temporary exacerbation of the tuberculous symptoms mentioned.

Pharmacologists differentiate between idiosyncrasy and eumulative effect, in that the first is due usually to a single, small dose, while the latter requires repeated doses. We have not been able to find a case report of acute exfoliative dermatitis following a single dose of neoarsphenamine. On the other hand studies on the eumulative effect following repeated doses have apparently not been correlated with the weights of the individuals so as to determine the amount per kilogram necessary to produce a toxic reaction. A study of the toxicity of a substance is linked up with the concentration in the body fluids and tissues and the length of time that the concentration is maintained. Sicard (2) gave neoarsphenamine in daily doses of 0.15 to 0.3 gm. and noted no toxic reaction until the end of the second month when the total given was 11 to 12 gm. Our case received 6.7 gms. in a period of eleven weeks. This is much less than the total toxic dose of Sicard. Stokes and Cath-

cart also state that the amount which induces a toxic reaction is relatively small.

The most severe reactions following treatment noted in our private practice occurred in three patients, who also had other infections. The first was in a man (L. W.) who had just previously had an acute gonorrhoeal urethritis followed by marked enlargement and suppurative inguinal lymph nodes. He shortly after had a hard chancre of the lip, the rash, loss of hair, a four plus blood Wassermann, and headaches for several weeks before antileptic treatment was begun. After practically each injection of neoarsphenamine he had a violent reaction consisting mainly of severe chills, abdominal distress, and occasionally a diffuse erythematous rash. A young woman (B. R.) with a long standing gonorrhoeal salpingitis and a pro-

nounced predilection for alcohol would go into a state of collapse after each injection of neoarsphenamine. An asthmatic (W. S.) had obtained prompt relief by intravenous injections of sodium iodide. He later rebelled against antileptic treatment when after each of the first three minimal doses he was thrown into a condition in which chills and headaches were followed by a generalized myalgia.

Our experience indicates that untoward reactions in syphilitic patients occur more readily during treatment when there is a concurrent infection present of either a tuberculous or non-tuberculous nature.

1. Stokes and Catheart: *Arch. Derm. and Syph.*, 7:14, 1923.

2. Sicard: *Soc. med. d. Hop. de Paris*, 35:833, 1919.

Pulmonary Embolus*

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Fatal pulmonary embolism is a post-operative disaster that every surgeon fears. It is an event totally unforeseen and unpreventable and for which we have not present means of relief. The suddenness of onset followed usually within a few minutes by the death of the patient precludes all possibility of any therapeutic procedure. If anything is to be done on the problem it will have to be directed towards prevention rather than cure. To that end, i. e., cure, two means have been used: (1) Ligation of the pulmonary artery; (2) Trendelenburg's operation which consists of opening the pulmonary artery and removing the clot. Although life has been prolonged in some instances, still such a procedure is obviously impractical and by its very nature doomed to failure.

While still a member of the surgical staff of the Mayo Clinic, we took occasion to investigate 22 proven post mortem cases of pulmonary embolus that occurred in a series of 20,369 surgical operations. Added to these are three cases that have occurred in private practice.

We studied these cases especially for the relationship of varicose veins noted previous to operation — phlebitis noted post-operatively and thrombo-phlebitis discovered at autopsy. The

age of these patients—the youngest was 8, the oldest 68—average about 45 years. It is of interest to note that pulmonary embolism usually occurs in patients in the later decades—at the time when the circulation is slowing down, a possible factor in causation.

The time of occurrence is a matter of note. The earliest in this series occurred on the second day—the latest on the fifty-first day—the average on the tenth day, just at the time when patient is becoming active. Cases have been reported in the literature as early as two or three hours and as late as three months.

From the beginning of surgical history, pelvic operations have been given as the principal cause of embolus. Still in this series only 8 of the 25 cases were on the pelvic viscera. A greater number than of any other type of operation yet a small percentage of the whole.

There were 4 appendix cases, 1 cholecystectomy, 1 splenectomy, 4 gastroenterostomies, 3 bowel resections, 1 bladder resection, 1 ligation of superior thyroid. It is of interest to note that 10 of these cases were carcinomatous. This factor has a bearing because of the circulatory changes.

Thirteen cases of the 25 showed thrombosis of the ileacs and femoral veins at autopsy.

Any study of embolism of necessity concerns itself with the question of thrombosis. Since

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Virchow's monumental work in 1846, the question of embolism and thrombosis has been of intense interest to surgeons.

What are the factors in the production of thrombosis? Quoting Hampton and Wharton there are two, primary and contributory. Primary—infection and trauma; contributory—slowing of blood stream, clinical and physical changes in the blood and anatomical relations of the blood vessels. Thrombosis is represented as a collection of blood platelets with leukocytes and fibrin. This is caused directly by endothelial injury and this in turn by traumatism, toxin or bacterial invasion. And this is the question that we sought the answer to in this study.

That traumatism plays a role is unquestioned and it is a factor common to all surgical operations in a greater or less degree. The part that infection plays is a matter of speculation. A survey of the literature shows a division of opinion on the subject. A review of our own cases shows that infection played a prominent part. The post mortem examination revealed thrombosis of the femoral or iliacs in 13 of the 25 cases, a little over 50%. In reviewing the histories of these patients 4 showed varicosities previous to operation and only 2 developed a recognizable phlebitis following the operation. But it is significant that everyone of the cases that showed thrombo-phlebitis at autopsy ran a post-operative temperature of 99 to 100 that was unexplained by any discoverable cause. Michealis was one of the earliest observers to call attention to the point. He stated that in patients who have a perfectly normal temperature curve after an operation, thrombosis and embolism need not be feared.

Welsh has pointed out that thrombosis of a large vessel may occur without any swelling or symptoms whatsoever. The post mortem examination of the remaining 12 cases showed, aside from the lung findings common to all, no signs of any pelvic or abdominal thrombosis. The question might be raised that thrombo-phlebitis is purely traumatic and not inflammatory. It is the conclusion of Hampton and Wharton that traumatic thrombosis of the pelvic veins is more often associated with pulmonary embolism than the inflammatory type. Yet all of our cases showed a post-operative temperature that would rather indicate an infection plus trauma rather than trauma alone. The two conditions are too closely allied to be differentiated and they both undoubt-

edly play a part. Unfortunately these cases were not studied bacteriologically, as this would settle a much mooted point.

Great stress is laid by continental writers on slowing of the circulation as a possible cause, such as is found in anaemic debilitated cachetic patients. They also speak of the myomatous heart in association with fibroid uterus. In the five hysterectomies for fibroid uterus in our series, autopsy reveals no heart changes worthy of note.

With reference to preoperative debility, cachexia and anaemia slowing the circulation and this predisposing to the thrombosis and subsequent embolism, nine of our cases fell into this group and showed marked preoperative signs of circulatory slowing a fairly large percentage, but not a striking feature. Virchow believed that the cause of embolism lay in an enfeebled circulation and inflammation of the vessel wall if present was merely a secondary effect.

There is abundant evidence to bear witness to the fact that anaemia—fall in blood pressure following hysterectomy—toxaemia from cancer, are all factors that tend to stagnate the blood stream and given the usual trauma may lead to pulmonary embolus.

If we are to accomplish anything in the way of prevention of pulmonary embolus both in its fatal and minor forms, viz., pulmonary infarction, it is by the consideration of a few known factors.

First the question of circulation. Slowing of the circulation has been emphasized by many writers as a potential cause of thrombosis. An anaemic debilitated operative case should be considered a possible candidate for pulmonary embolus and measures instituted to build up the circulation. Fluids preoperatively where possible and encouragement of early movement of post operative cases with short bed stay are measures that should be instituted. Sudden movement on the part of any operative case should be strictly forbidden and patients should be cautioned. We have noted that embolus occurred in many patients following some sudden movement.

Secondly trauma to tissue and infection. Both these factors are under the control of the surgeon in a great measure. Gentleness in handling of tissue, ligation of all bleeding points accurately and not en masse are to be emphasized.

It must be admitted, however, that embolus occurs even when the operative conditions are ideal

and when perfect asepsis and technique have been observed.

Notwithstanding this fact, prevention of thrombosis is to be aimed at. Whether trauma or infection play the principal role, still the prevention of

both is in a great measure in the hands of the surgeon and while fatal pulmonary embolism is considered the justifiable disaster of surgery, effort should not be spared to make this complication a post-operative rarity.

Age	Sex	Operation	Varicosities	Embolism No. days P. Q.
64	M.	Gastroenterostomy & resection stomach	Iliac Thrombosis	23 days
55	F.	Hysterectomy Fibroid	Thrombosis of Renal-ovarian	12 days
50	F.	Cholecystectomy	Common iliac Thrombo-phlebitis	32 days
			10 days infarction	
			19 days pneumonia	
			32 days embolus	
35	F.	Perineorrhaphy and shortening of round ligaments	Iliac Thrombosis	22 days
57	M.	Carcinoma sigmoid	Right iliac vein Thrombosis	6 days
57	M.	Inguinal hernia and lipomia	Phlebitis Postoperative	12 days
33	F.	Oophorectomy and Appendectomy	Thrombo-phlebitis left external and common iliac vein	10 days
56	F.	Carcinoma transverse colon	Thrombo-phlebitis iliac vein	31 days
42	F.	Hysterectomy Fibroid	Thrombo-phlebitis iliac vein	23 days
16	F.	Ligation thyroid	Thrombo-phlebitis iliac vein	16 days
68	F.	Prolapse	Varicose veins; chronic legs and vulva	8 days
68	F.	Gastroenterostomy, carcinoma inoperable	Varicose veins	21 days
56	F.	Inoperable carcinoma stomach	Varicose veins	
52	M.	Diverticulum Bladder	None	9 days
42	M.	Ca. Rectal sigmoid	Thrombosis of both iliacs	
38	M.	Gastroenterostomy Gastric ulcer		51 days
51	M.	Appendix abscess		9 days
50	F.	Hysterectomy Fibroid V.	Thrombosed internal iliac	10 days
24	M.	Splenectomy	Thrombosis of mesenteric iliac & femoral	17 days
51	F.	Fibroid V. Hysterectomy		2 days
46	F.	General abdominal carcinomatosis		9 days
49	F.	Hysterectomy	Left iliac thrombosis, 12 day phlebitis	17 days
21	M.	Appendix		10 days
36	F.	Appendix	Varicose veins	9 days
8	F.	Appendix		8 days

THE EXTENSION OF HOSPITAL PRIVILEGES TO ALL PRACTITIONERS OF MEDICINE

Hospitals that are not under the control of medical schools may think that in the matter of medical education theirs is only a subordinate and unimportant part. In fact, their position is not only important; it is extremely important; for, while the medical school may sell the student his admission ticket to the play, seats are not ordinarily reserved, and it remains for the hospital eventually to usher the medical graduate to his place. S. S. Goldwater, New York (Journal A. M. A., March 28, 1925), is attempting to enlist interest in the extension of hospital privileges to all practitioners of medicine. He urges that the most effective possible use should be made of the extensive facilities for medical education that hospitals control. In his opinion it is to the credit of the open hospital that it brings into touch with an organized institution many physicians who, under a more restricted or exclusive hospital system, would be deprived of those helpful and stimulating medical contacts, without which they are in danger of deteriorating in medical knowledge and proficiency from the moment of graduation from medical school. Granting that an open hospital is of necessity a relatively loose organization, in which uniformity of procedure is difficult of attainment, and from which the most systematic and illuminating study of groups of cases by organized teams of clinicians and laboratory men is ordinarily excluded, the open hospital nevertheless affords far better opportunities for fruitful clinical study than can be found in the lonesome and dreary circumstances of private practice. Proceeding from the basic idea that without a hospital connection a physician of ordinary talents cannot mentally thrive, or, at least, that he is in grave danger of contracting loose habits of thought, of becoming careless and superficial in his clinical methods, it follows that it is the duty of physicians to seek hospital connections, and that it is equally the duty of those who control hospitals to facilitate such connections. If any-

thing can be done to liberalize the closed hospital without destroying its efficiency as a teaching and research center, it should be done; if any suggestion can be offered that will tend to improve the character of the service in open hospitals, it should be adopted; but these steps, however important in themselves, are of far less concern than the fact that the need of a hospital connection for every practicing physician should be the controlling factor in all community hospital organization. Without sacrificing those elements of strength that are characteristic of the well organized staff hospital, the closed hospital should utilize every possible means for widening its professional influence. Staff positions should be created for as many clinical and laboratory assistants as the service can healthfully absorb—and the number of men that can be comfortably tucked under the blanket of a hospital staff organization is truly astonishing. The appointment of temporary volunteers who are capable of carrying on intensive studies which are beyond the capacity or the available time of the regular staff should be encouraged. Invitations should be extended to the practitioners of the neighborhood to attend clinical and pathologic conferences. Formal post-graduate teaching should be organized—under university auspices, if possible; independently of any medical school, if necessary. In some cases, facilities for the treatment of private patients may, without detriment to the hospital, be placed at the disposal of an associate or "courtesy" staff. Diagnostic aid should be extended to unattached practitioners. Encouragement and practical assistance should be given to open hospitals that are sincerely striving to improve the quality of their work. The educational efforts of the county medical society should be seconded. A reasonable rotation in office should be insured by the adoption of rules prescribing age and service limits. The hospital should lend a willing ear at all times to unattached physicians who believe themselves to be the victims of an unduly narrow hospital policy, and who offer suggestions for extending the privileges of the hospital to a larger group.

Artificial Pneumothorax for Tuberculosis Prevails in Vienna; Mohlgaard's Publication Believed Premature

BY LOUIS M. WARFIELD, M.D.,

Vienna, Feb. 28, 1925.

My Dear Mr. Crownhart:

The two weeks post-graduate course given by the faculty of the University for Native and Foreign Physicians was held during this past month. The general subject was "Disturbances of the Digestive Tract" The work was well planned with lecture sessions and clinical demonstrations in the forenoons and afternoons. The meetings were so arranged that the men were in one lecture amphitheater all morning or all afternoon. There was a good attendance of both native and foreign doctors. Naturally, as in all such courses, the sessions varied in interest, but on the whole those who went through the two weeks seemed to feel that they had gathered some worth while points. The post-graduates were kept busy. They began shortly after 8 A. M., and finished the morning session at 1 P. M. They were again at it from 2:30 P. M. until 5 P. M.

It was rather surprised to see in the Paris edition of the "New York Herald" that Eppinger had discovered a simple and easy way to reduce flesh. I heard his short talk before the Vienna Medical Society and was not very much impressed with his "simple" method. He showed lantern slides with data of only two men with marked adiposis, to one of whom he gave intravenously an organic preparation of mercury, a powerful diuretic known by the trade name of novarsurol, and to the other he gave a salt-free diet. It was to the result of treatment of the first patient to which the newspaper referred. This novarsurol, however, seems to me to be a rather dangerous preparation. It can only be given when there is absolutely no evidence of kidney lesion. It does produce, in the majority of cases, a tremendous diuresis which begins within four hours or less of injection. So far so good. In edema of cirrhosis of the liver, or in edema of uncomplicated cardiac failure it occasionally acts wonderfully, but, I have seen two cases recently at autopsy who had had one or several injections of the drug, where the small intestine was the seat of an evident catarrhal inflammation with microscopic ulcerations. Such a drug seems to me to be too risky for constant use; yet it is given here just now to many patients.

The great chemical works are feverishly turning out organic compounds of the heavy metals in their search for specific remedies. After a few trials on animals they are tried out on patients. Anything is tried out on patients. One will find in the German journals recommendations of these "new" drugs from time to time. I feel that we in America should take a very conservative attitude towards these novelties. It is better to let the other fellow do harm to his patients, and if we seem slow to take up the new things, we shall at least be sure when we do use them that they have been given an extended trial. (Remember optochin for the treatment of pneumonia). I see also that Friedmann of turtle baecilli fame says he has now had ten years trial of his vaccine and finds it good. Is he getting ready for another trip to America? God forbid!

We may think that we ride hobbies. We do not know what it is to ride a hobby as one is ridden here. Practically every one here who has a "course" for the American doctor has one which he mounts, and on which he goes galloping through facts rough shod, only sparing those facts which fit in with his own particular theory. It is great fun to be on the outside looking in. Unfortunately, so many of the Americans here are either just out of school or have been in general practice where they were too busy to keep up with medical literature. To many of these doctors, the Viennese doctors represent the last word in medicine. The motto, "Don't believe all you hear and only half of what you see," should be on the first page of every note book. The native doctors differ violently among themselves, yet seem to be fairly friendly with each other. (American doctors take note). One hears not infrequently rather heated discussions among the pupils of these various teachers, every American standing up for his favorite teacher. Do not misunderstand me, my gentle reader. There is much that is good, splendid, but there is also the other side of the picture, the commercial side. One can not help but see that.

I have been much interested to learn that artificial pneumothorax is used here in the treatment of lung tuberculosis almost to the exclusion of other treatment. As in France, the patients are treated

in the Out-Patient clinics. They are using here ordinary atmospheric air and the apparatus is exceedingly simple. In fact, one set of apparatus consists of only a small hand pump, a U-tube monometer, rubber tubing and needle. It is packed in a box not much larger than that in which some of the mercury blood pressure instruments are packed. It is easily transportable. At Prof. Neumann's barracks hospital (the place looks like one of our wooden building encampments in war time, and actually was such a series of barrack buildings) a very simple method is used. Two liter measuring bottles with a manometer between them are mounted on a board. By means of a rubber bulb, air pump, and an arrangement of stop locks, one liter flask is filled with air which forces the liter of sublimate solution into the connecting bottle. Puncture is made and water pressure forces air into the pleural cavity. I did not time the individual treatment, but I am sure that it took less than five minutes from the time the patient lay on the bed to inject 500 c. c. of air. They are also doing quite a number of thoracoplastics in order to collapse old cavities, empyemata, or bronchiectasis. The Americans like Prof. Neumann very much. He gives a very snappy clinic on a case (in English) and leaves the impression that he knows his subject. He occasionally uses O. T. in very small doses intravenously, just as many of us have used it for a long time, when the patient seems to be at a standstill and needs a little boost.

The general feeling around here in regard to Mohlgaard's work with serum and a gold-salt treatment is that his publication is premature. In the first place, his basic experiments on animals are not above criticism; in the second place, his cases have been treated too recently to judge of permanence of results; in the third place, his preparation is decidedly dangerous for the patient. It seems, in the present state of our knowledge, that the addition of the artificial pneumothorax to our well known hygienic measures offers to the tuberculous person the best and quickest means of recovery. Of course, this is no new treatment. Accidents still happen, but with careful study of the individual case from all angles before introducing air, the risk to the patient is reduced to a minimum. Among the hundreds of patients treated by Prof. Neumann's staff there has never been a fatality.

Early diagnosis is here an important matter for the patient because chronic cases with accompanying pleural adhesions make the treatment impossible. Also lesions on both sides (active, of course) is a contra-indication to artificial pneumothorax. Accordingly, to get the best results we must continue to plead with patient and doctor for early recognition of the lung disease.

Sincerely,

LOUIS M. WARFIELD.

MAINTAINING LENGTH AND POSITION IN THE TREATMENT OF COMPOUND FRACTURES

The importance of maintaining length and position in the treatment of compound fractures is stressed by H. Winnett Orr and J. E. M. Thomson, Lincoln, Neb. (*Journal A. M. A.*, Nov. 1, 1924). Ordinarily compound fractures are but puncture wounds, and, after careful cleansing, can be reduced by methods applied to simple fractures and, if kept absolutely at rest in plaster casts or splints, they can be treated as simple fractures. Should infection occur, drainage can be established through a window in the cast without disturbing the bone fragments. Severely lacerated and mangled injuries should be given adequate débridement as early as possible. Even in those cases in which there is extensive loss of bone, full length of the limb can be maintained by fixed traction. Later, when healing has occurred, a bone graft can be supplied to fill in a gap if one exists without loss in the length of the extremity. The exact technic as employed is as follows: For compound fractures of the lower extremity, moleskin adhesive plaster traction straps are used. The frayed ends of a strong, pliable rope are sewed into the distal end of the straps which are applied to both sides of the limb well up to the site of fracture, and bandaged into place with muslin bandages. The patient is anesthetized on a fracture table; traction is instituted by a muslin bandage about the foot, and the rope ends are attached to the traction device by which a pull is made and continued until the limbs are of equal length. The cast is applied in the usual manner, as low on the extremity as the ankle. After the plaster has sufficiently set, traction having been continuously maintained by the foot bandage, the traction ropes are cut from the holding device, turned back against the leg portion of the cast, and embedded in the cast by several turns of plaster bandage, thus anchoring them and maintaining the traction. When the plaster is set, the muslin bandage anchoring the foot is removed, and the foot is then wrapped in sheet wadding, and the cast applied with the foot at a right angle to the leg. In some instances, we have found it necessary to use ice tongs or pins applied just above the condyles of the femur, at the ankle or through the heel. This may be done at any time when the fracture is near the joint, and when it is difficult to maintain traction and position by other means. We do not use the pin in the ankle, but in several cases have put it through the os calcis. We merely embed the pin or tongs in the cast, thus fixing the constant pull of the appliance, and securing the lower fragment in correct rotation. This is a method of greatest importance in those cases in which exact position as to rotation, eversion or inversion of the foot or lower fragments is difficult to secure or maintain. Such exact position can be secured and accurately maintained by manual control of the ice tongs or pin until it is "frozen" into the cast in just the position desired as to length and rotation. Ice tongs and pins are often the only devices that will give this kind of control in compound fractures. Attempts to secure such control by the insertion of bone grafts, plates, screws, wire, etc., into an infected field can be mentioned only to be condemned. They found cases in which, after full length was accomplished, exact apposition of the fragments could not be obtained by traction alone. Direct leverage applied to the fragments with an instrument has given splendid position. Compound fractures of the humerus are treated in a body arm spica with the flexed forearm used for traction, the countertraction being established against the shoulder. Forearm fractures are placed in plaster from the finger tips to the axilla, the forearm flexed to 90 degrees in semisupination and the hand in dorsiflexion, traction being maintained through the flexed elbow against the biceps portion of the arm and the dorsoflexed hand. The wound is cleaned up or débrided, filled lightly with a petrolatum gauze pack, and is covered under the cast with a dry, sterile pad. Unless there is marked rise in temperature, the wound remains untouched for from two to six weeks, at which time a window is made over the wound, and the first dressing is removed. During this procedure, the position of the fragments is undisturbed.

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SERVICE AVAILABLE

There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 558 Jefferson Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical, Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. *Medical Books* will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. *Physicians' Exchange Column* is open to all members without charge.

4. *New Scientific Publications* listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. *State Laws* and departmental rulings can be secured through the Secretary's office.

6. *Legal Advice* upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

7. *Legislative Service.* Upon request members may secure information upon any measure introduced in the 1925 Wisconsin Legislature.

FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

POST-OPERATIVE MASSIVE COLLAPSE OF THE LUNG

PULMONARY complications constitute the most important of the post-operative problems. It has been stated that three per cent of all patients operated upon developed some form of pulmonary complication and that one patient in every two hundred operated upon dies from some one of these conditions.

Massive collapse of the lung, one of the serious and frequent post-operative complications, appears to be a little understood clinical entity. Scott¹ in a recent article on this subject calls attention to two facts of importance regarding this condition:

1. It presents a definite clinical entity which generally escapes recognition.

2. The mechanism of massive collapse probably plays an important role in the field of pulmonary complications.

Originally described by W. Pasteur² in 1908, this term was used to distinguish a condition in which a lobe or its major portion is collapsed from lobular atelectasis which occurs in areas too small to be recognized. This condition comes on within forty-eight hours after operation in over eighty per cent of the cases reported and is characterized by a sharp rise in temperature, pulse and respiratory rate with cough, dyspnoea and pain in the chest.

The physical signs are unilateral dullness with *displacement of the heart toward the affected side*, diminished or suppressed breath sounds over the affected area and depression of the affected side with lessened respiratory excursion, the base or lower portion of the lung being the most frequently involved. The first of these signs is said not to occur in any other condition.

The X-ray early shows increased density over the collapsed area with displacement of the heart to that side and often makes a diagnosis possible before it can be made by physical signs.

The condition may last from a few days to two weeks or more and may terminate (1) by lysis, (2) by complications, (3) by crisis.

The exhibition of drugs except small doses of morphine to relieve the dyspnoea seems to exert no favorable influence on this condition.

The prognosis is generally good except in those cases terminating in bronchopneumonia as a complication. It is in this group that most of the fatalities occur. —J. F. S.

¹Scott, Archives of Surgery, Vol. 10, No. 1, January, 1924.
²W. Pasteur, Lancet II: 1351, 1908.

UNIVERSITY OF WISCONSIN AND MEDICAL EDUCATION

THE writer, when president of the State Medical Society in 1910, took the above for the title of his presidential address. Since that time much medical history has been written—and re-written; as witness the State Insurance Act of England that put some 13,000,000 of her people under a State Health Insurance plan and which is now contemplating adding the dependents of those insured persons, which would mean some 15,000,000 to 17,000,000 more coming under state life insurance. Witness also the drift in our own country *from* state medicine since the world war.

In 1907 the two-year course in medicine was established at the University. Any of the students graduating from that two-year course to the well recognized schools of medicine will unambiguously declare that the course has been a most excellent one. The very fact that the best medical schools in the country have been anxious to take our students, is a sufficient guarantee that it is recognized as equal to their own. The clamor of students of the universities where the best medical schools are located, such as Harvard, Johns Hopkins, Pennsylvania, Washington University and many others, for entrance into the medical department of their own university, has made it impossible for them to accept more than a very few of our students. So that when the students from the two-year course at Madison graduated, they were frequently at a loss where to go and often found it impossible to get into such schools as they desired to attend.

This made it imperative that we either abandon the two-year course in medicine or establish a full time medical school.

For many years the officials of the University and especially the faculty of the Medical School have not only felt the need of the establishment of

a full four-year course, but have been planning it thoughtfully ever since the establishment of the two-year course. All those years Dean C. R. Bardeen has had original ideas about medical education that he has been slowly perfecting with the collaboration of the faculty. In 1923 in Chicago, before the Committee on Medical Education of the A. M. A., he presented a paper entitled "Present Ideals of the Physical Plant in Medical Education," which received much favorable comment, and which I would commend to the readers of the Journal for perusal.

At a special session of the legislature called by Governor Phillip in 1920, the building of a hospital to be designated "The State of Wisconsin General Hospital" was provided. The provisions for, and under which, the hospital was established, were outlined in a paper by Dean C. R. Bardeen, printed in the Wisconsin Medical Journal, September, 1924. I would urge every physician of Wisconsin to read carefully this article. (Get all the facts, and only the facts, before making a diagnosis!)

Only a few years after the two-year course, and with it the University Clinic, was established, some suspicion arose that the University Clinic, and hence the medical faculty, were exceeding their legal prerogatives and an effort was made to abolish the clinic. An act of the legislature actually did forbid the culture establishment of the final two years. This act of course was later repealed and those who at that time feared local encroachment by the University medical faculty, are now its warmest supporters.

We should learn wisdom from this episode. If any of the medical profession in the State of Wisconsin feel that the establishment of a four-year medical school is a danger either to their private practice or may possibly lead toward state medicine, I would earnestly beg them first to acquaint themselves with the facts. Then I am sure that all fear of interference with private practice will disappear.

The law drawn in connection with the establishment of the hospital is so definite in its provisions; the endeavor to align with its policies the good will and cooperation of the profession throughout the state is so clear, and profession's interests are so well safe-guarded that I am sure only knowledge of its provision is needed to disarm hostile criticism.

From an educational viewpoint, it should be of immense value to the profession of the state for as a means of post-graduate education it is sure to be helpful. The establishment of a medical school and hospital at Madison is not a local but a state affair. It is not going to disturb the relationship between the private practitioner and his patient; for, as Dr. Bardeen says, "The main responsibility for the care of the sick falls upon the private practitioner. In the long run the sick will receive the best care under conditions which encourage private practice of a high type."

This is the underlying principle dominating those interested in the hospital and the establishment of the final two years at Madison. The practitioners of the state can smooth the path and lessen the difficulties of those initiating this work. They could not if they would, hinder its progress. I am sure the profession of Wisconsin does not wish to so hinder it.—E. E.

THE GORGAS MEMORIAL

GENERAL Gorgas was one of the greatest American who ever lived. And like most great men he was unpretentious, and a modest man. This fact has been taken into account by those who have determined that the most appropriate memorial which could be erected to perpetuate his memory is a "service—institution."*

We physicians, as has been pointed out by the officers of the organization promoting the Memorial, have a personal and selfish interest in seeing to it that this project is put across right and kept properly within the control of medical scientists. Not that we have any patience with the bumptiousness medical men sometimes show toward the Memorial is going to be established whether the medical profession leads off or not. Such service as Gorgas rendered to commerce alone will be "ignorance of the laity" in matters pertaining to the public health.

What we are getting at is this: the Gorgas recognized by merchants and financiers. They will be made to appreciate the money value of a Yellow-Feverless-Latin-America. More than that, they will see the promise of cash dividends in further extensions of such work in other lines of sanitary research.

It's up to us to "put up or shut up," if, as physicians, our opinions in regard to the memorial are

to receive due weight. But not necessarily in money. Service and interest may be more valuable than dollars; because high grade service and interest will bring out dollars while money alone can't buy high grade service. If the medical profession, as such, is to have its say in the councils of the Gorgas Memorial, we will have to buy our tickets at the box office or gain our admission on passes for service rendered. Shall we see you at the Gorgas Memorial?—H. E. D.

*Wisconsin Medical Journal, December, 1924.

AS OTHERS SEE US

WISCONSIN MEDICAL JOURNAL.

The State Medical Society of Wisconsin issued in January, 1925, its second annual lay issue. This is a new and novel method of combining a state journal, which is usually supposed to be scientific in character only, and a lay type of a medical journal.

However, the movement is commendable provided the management is able to finance and publish sufficient numbers to reach those of the state who would profit by receiving that issue of the Journal.

We desire to congratulate the Editor and editorial board of the Wisconsin Medical Journal upon its second annual number. It is attractive and contains some splendid reading not only for the nonmedical individual of the state, but also for the members of the medical profession.

—Editorial, *Atlantic Medical Journal*, March, 1925.

NOTICE OF EXAMINATION

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. June 1, 1925
- At Chicago, Ill. June 1, 1925
- At New Orleans, La. June 1, 1925
- At San Francisco, Cal. June 1, 1925

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.

THE JOURNAL CLINIC

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THE BUREAU OF POST-GRADUATE MEDICAL INSTRUCTION
UNIVERSITY EXTENSION DIVISION
The University of Wisconsin

REPORT OF A CASE OF DISSECTING ANEURYSM OF THE AORTA

BY T. W. NUZUM, M.D.,
PEMBER-NUZUM CLINIC,
JANESVILLE

The following case may be of interest because of its rarity and because the patient had been examined by several noted internists, and had gone through four clinics, and had three operations all at one time with no relief, but made infinitely worse by the latter, October 4th, 1924.

H. S., age 59, a salesman and manufacturer, has a wife, two children. Habits good. Has suffered at times for twenty years from duodenal ulcer, which had been quiescent for some two years or more.

While on one of his trips it was noticed that he was talking at random and he was advised to return home which he did the next day driving his own car some 150 miles.

He came to the Clinic and his blood pressure was 240 sys., 120 dias. Casts and albumin in the urine.

His reflexes were normal, blood and spinal fluid, Wassermann, negative, hemoglobin 50%, reds under 2,660,000, whites 16,300.

He was suffering from haemorrhoids, which were bleeding, and had marked arterio-sclerosis.

He was sent to the hospital, put to bed, placed on a diet, and on the fourth day had a severe chill and developed a severe pneumonia in the upper lobe of the left lung, from which he was very ill for three weeks, but finally recovered, gained in flesh and general health, but complained of severe pain in his back, constant and very distressing, and not relieved by any medicine, nor treatment, except temporarily by anodynes.

X-ray showed cloudy area in the upper lobe of the left lung, which had not cleared up; the heart markedly enlarged and the arch of the aorta was dilated and just below the arch was a rather indefinite shadow.

The duodenum showed an old ulcer which from the X-ray findings and symptoms seemed quiescent.

He was fairly active and visited three other clinics, was X-rayed and examined by a number of good men; but none seemed to account for his constant pain in the back except to call it a neuritis or arthritis.

He finally submitted to an operation at which time his appendix and gall bladder were removed and a gastroenterostomy was done, but after the effects of the anodynes wore off his suffering was greatly aggravated, and he was never able to leave his bed, but required anodynes continually to control his pain.

On three different occasions he was suddenly seized with a severe chill, his temperature would rise to 104

and on one occasion to 106, and this would repeat each day for two or three days when he would return to normal. Repeated blood examinations failed to find any malarial parasites nor was there any history that he had ever suffered from malaria.

His blood pressure came down to 125 sys. and at times I was able to hear a bruit above and to the left of the aortic arch, and at the ensiform, but this I could not always hear. There were two distinct infarcts in the plantar surface of one great toe and one, in one little toe.

I saw him about 6 o'clock one evening and there was no perceptible change in his condition. At 1 A. M. came an urgent call and I reached his bedside 15 minutes later and found him dead. He had thrown up about three quarts of blood, which was caught in a vessel.

THE POSTMORTEM

Arteries much sclerosed. Duodenal ulcer entirely healed. Stomach contained a quantity of clotted blood, its mucosa was healthy. The tissues were exsanguinated, liver contained a number of infarcts and was larger than normal, spleen slightly enlarged, no infarcts, pancreas normal, heart large and left ventricle very thick, valves and endocardium normal, arch of the aorta dilated and just below the arch a dissecting aneurism which had eroded three dorsal vertebrae and had ruptured into a bronchus of the left lung.

There were dense adhesions of the upper lobe of the left lung to the chest wall and an area of unresolved pneumonia. The kidneys showed evidence of chronic nephritis, there were no marked changes in the colon, his arteries were very hard. It is very plain that his mental lapse was due to an infarct from the aneurysm, also his pneumonia. The chills and fever were due to the same cause, also the infarcts in his toes. The case is rare, I having seen only one before, and the diagnosis difficult.

UNIVERSITY OF WISCONSIN MEDICAL SOCIETY

January 27, 1925

PROGRAM

- I. REPORT OF THE WASHINGTON MEETINGS
 - A. DR. W. J. MEEK
 - B. DR. E. L. SEVRINGHAUS
- II. DISEASES OF THE THORAX WITH PARTICULAR REFERENCE TO THEIR SURGICAL TREATMENT
DR. C. A. HEDBLÖM

Doctor Meek and Doctor Sevringhaus reported on the outstanding papers in their respective sessions at the Washington meeting.

The address of the evening was by Doctor Hedblom who introduced the subject of Diseases of the Thorax, with particular reference to their surgical management, by a discussion of empyema. The various infective organisms were discussed and the importance of recognition of the etiologic agent stressed in relation to the time element of operation. The two most common forms of empyema are those caused by pneumococci and streptococci. In empyema of pneumococcal origin, early operation is indicated; whereas streptococcal empyema, adhesions forming slowly and limitation being less definite, is best met by delayed operation, the emergency being tided over by aspirations or the closed method of drainage. The several clinical varieties of chronic empyema were outlined with particular reference to the complications arising from neglect. Empyema necessitatis, pyopneumothorax and extreme scoliosis were demonstrated by lantern slides. Dr. Hedblom stated that the chronic empyemas might be divided into three general groups:

1. Unrecognized or undrained.
2. Persistent draining.
3. Recurrent.

He stated that delayed healing resulted from several causes, such as late or inefficient drainage, persistent infection of the pleura, bronchial fistula, tuberculous pleurisy, foreign body, massive collapse of the lung with fixation and fibrosis of the lung. The foreign body may be tubing, calcified pleura, bismuth paste, bone fragment, or any one of a number of substances.

Dr. Hedblom next took up the question of the surgical treatment of bronchiectasis and lung abscess. He stressed in the latter connection the importance of foreign bodies in the causation and the frequency of abscess following tonsillectomy. Certain of these cases may be treated by artificial pneumothorax, whereas in others either extrapleural thoracoplasty or an open operation may be indicated. Excision of the involved part may be advisable, and the chosen method at the present time, in his opinion, is a cauterized lobectomy. By lantern slides Dr. Hedblom enlarged on the question of the pathology and treatment of subphrenic abscess, pericarditis, tumors of the chest wall, carcinoma of the lower esophagus, diaphragmatic hernia, and congenital or acquired deformity of the chest wall. Particularly impressive in the statement of the advance of this field of surgery

were Dr. Hedblom's mortality statistics—five operative deaths in three hundred and ten cases.

This paper was discussed by Dr. Head.

COMBINED MEETING OF THE DANE
COUNTY MEDICAL SOCIETY AND
THE UNIVERSITY OF WIS-
CONSIN MEDICAL SOCIETY

February 17, 1925

ETIOLOGY OF ENCRUSTED CYSTITIS
B. H. HAGER.

ASSOCIATE PROFESSOR OF SURGERY

Dr. Hager discussed the symptomatology of alkaline phosphatic or encrusted cystitis, stating that hematuria, urgency and frequency rather than pyuria characterized this condition. He added that gritty urine which was alkaline in reaction was the common observation. Encrustation of the trigone was frequently observed. Commonly cystitis is the result of infection secondary to a remote focus. In initiating the study of this condition extremely interesting observations were made of the hydrogen ion concentration of the bladder urine and of the ureteral urine and it was remarked that the pH of 7.8 was the rule in the bladder urine, whereas ureteral urine had pH of 5.8. It is apparent from chemical studies that the urea nitrogen which was high in the ureteral urine fell somewhat in the bladder urine studies and the ammonia nitrogen proportionately increased. The alkaline change then in the bladder was definitely due to ammoniacal change. It was early proven that the various bacteriological constituents of the urine were not capable of producing cystitis by their own growth. An earlier observation had proven the inadequacy of any such bacteriological factors in inducing a cystitis when introduced directly into the bladder.

Dr. Hager discussed the bacteria of the urine in these cases and stressed particularly the importance of a Gram negative bacillus which was invariably found and which, when introduced into a bladder chemically inflamed by the introduction of 0.1% salicylic acid, induced a characteristic encrusted cystitis. The control experiments were negative.

It was apparent, therefore, by pathological studies of the inflammation by this plan of experimental procedure and the recovery of the organism from such lesions that Koch's postulates had been fulfilled. Dr. Hager pointed out that the Gram negative bacillus closely resembled an organism

obtained from the nose in cases of atrophic rhinitis, and he added that the condition of encrusted cystitis was more common in women and after childbirth.

Drs. Sisk and Sullivan discussed this paper.

SOME PROBLEMS IN NEURO-SURGERY
A. S. CRAWFORD,

ASSOCIATE PROFESSOR OF SURGERY

Dr. Crawford introduced his subject by a discussion of the historical background of the development of neuro-surgery, carrying the subject back to the earliest periods of history and through the Hippocratic and Galenic periods down to the more recent developments, under the modern masters of surgery. He particularly stressed the importance of anaesthesia, asepsis and cerebral localization in relation to surgery of the cranial cavity. By a series of lantern slides he demonstrated this phase of the subject and then introduced the individual conditions which are at present amenable to surgical interference and the developments of the several operations. The Gasserian ganglion operation, spinal cord and brain tumor, abscess of the brain, sympathetic ramisection, pituitary disorders and spina bifida were discussed. The various diagnostic procedures and the various manners of surgical approach were discussed in relation to the conditions mentioned.

PREVENTIVE MEDICINE

Edited by

W. D. STOVALL, Chairman

Section on Preventive Medicine, State Medical
Society of Wisconsin

This Section is open to all members of the State Medical Society and others who wish to discuss subjects pertaining to Public Health. Original articles, and criticisms of statements appearing in this section are earnestly solicited. Questions concerning public health procedure will be answered. Address communications to Dr. W. D. Stovall, State Laboratory of Hygiene, Madison, Wis.

PREVENTION AND CONTROL OF
SCARLET FEVER*

BY L. M. FIELD, M.D.,

BELOIT

The clinical picture of scarlet fever has been well known for many centuries, but not until about 1670 during the great epidemic in London was there given a clear-cut description of this affection which differentiated it from other exanthemata of infectious origin. Since that time it has been known to exist in nearly all countries and among all peoples. It is endemic in all big cities and

*Read before Wisconsin Conference of Health Officers, Madison, September 25, 1924.

occasionally becomes epidemic, sometimes so mild as to go unrecognized and at other times so malignant as to terrorize.

From the time that the disease was first described by Sydenham nearly three centuries ago until very recently, the cause of the disease and proper methods for control have been unknown. Since the discovery of the germ theory of disease scores of the best investigators of the world have been working on the cause of the disease and the development of a serum or antitoxin for its treatment and prevention, only to be doomed to failure.

The protozoon origin, the filterable virus and streptococcus theory have been weighed in the balance and found wanting by many investigators. All observers admitted, however, that regardless of the true etiology of scarlet fever the streptococcus materially influenced the welfare of the patient and the course of the disease. As early as 1880 or 1881 the streptococcus was announced as the cause of scarlet fever and an antitoxin and serum were a little later produced for its prevention and cure. These did not come into general use and fell into disrepute for the main reason that a test was not devised that would tell whether or not the individual was susceptible.

It appears that the best work in scarlet fever has been done very recently by Dr. George F. Dick of Chicago, who has developed a test whereby the susceptibility of the individual can be determined. His experiments have been performed on human subjects, a very necessary thing since most animals are immune to scarlet fever, a fact which accounted for the failure of some investigators in the past. The filtrate virus theory was discarded by him in his early investigations for the reason that he could not produce scarlet fever in man or animals with any filtrate from the throat mucous of scarlet fever cases. The blood was next studied and cultured and no organism was found constantly enough to indicate a causal relation. He then experimented with certain strains of hemolytic streptococcus isolated from the throat of a scarlet fever patient, and succeeded in producing experimental scarlet fever for the first time on October 6, 1923, which was a most important step in determining the real cause of the disease.

In further experiments he has caused some strain of hemolytic streptococci to fulfill all the requirements of Koch's laws, and it may be pretty safely said that the cause of scarlet fever, which has been a mooted question for so long a time, has

been definitely settled. Since the finding of the cause of a disease is a most important factor in its treatment and control, the way has been paved whereby scarlet fever may be prevented.

CONTROL DIFFICULT

The only method in use at the present time for the prevention and control of scarlet fever is the quarantine of the patient and isolation of contacts. This method would be only partially successful if every case of the disease could be reported or discovered. The fact is that scarlet fever appears in such mild forms that diagnosis is not possible even by a careful physician, especially if the patient is not seen at just exactly the right time. The temperature may be slight or normal after a short time; the rash may be very transitory and disappear after a few hours and there remain insufficient symptoms to establish the diagnosis. The desquamation may be very light and in any event appears late, often after the doctor no longer calls on the patient.

Many cases are never seen by a physician as the illness seems so slight that the parents neglect to call or fail to see the need of a physician. These missed cases become a source of infection to the community and are nearly always neglected so far as treatment is concerned, and recovery is often delayed and they become carriers of the organism which causes scarlet fever. That scarlet fever exists in atypical forms in which few if any of the classical symptoms of the disease are present is indicated. It has been demonstrated that the hemolytic streptococcus, the type which causes scarlet fever, is often found in open skin lesions when no other symptoms of the disease are present. In my own experience I have seen numerous cases of scarlet fever which were preceded by an infection on the skin. Wound scarlet fever has of course been described long ago but in many cases which I have observed, the patient with the infected wound never developed scarlet fever but another child in the family would become ill with the disease. The child who had the infected wound in all probability developed immunity and was capable of transmitting the disease without ever actually having had scarlet fever.

There is strong evidence that there are healthy carriers of the disease and if this be true will account for the many cases we see which can not be traced to any known source. Another source of infection in a community undoubtedly are the discharged cases who become carriers of the causa-

tive organism. I have seen five cases of scarlet fever develop as the result of contact with a boy who was discharged from the hospital after five weeks of isolation and after all visible signs of scarlet fever had disappeared.

THE DICK TEST

In view of these facts the prevention of scarlet fever may be seen to be next to impossible and its control difficult. There is great hope at present that we will have a much improved and more efficient means of control as a result of the work and discoveries of Dr. Dick. He has developed a skin test, which bears his name, and which is used for the purpose of testing the susceptibility of the individual to scarlet fever. It is performed in practically the same way as the well known Schick test for susceptibility to diphtheria. As in the Schick test, it depends on the ability of the patient to neutralize a small amount of the toxin. The toxin is obtained from a certain strain of streptococcus which has been found to be the true cause of scarlet fever. There has been developed also by Dr. Dick an antitoxin for the immunization against scarlet fever. The correct dose of this product has not been thoroughly established, but as soon as this is done the preparation will be put on the market and will be available for general use. It will be only a matter of a few months probably until this is done.

The immunizing treatment will be given in three doses at intervals of from five to seven days. It is not known just how long immunity so produced will last. Although it is known to last one year it will probably last for life. The newborn are practically immune to scarlet fever but the susceptibility to it increases as the individual grows older until about twenty years of age, when the susceptibility decreases as evidenced by the Dick test. As there is a natural tendency after this age to develop immunity, in all probability one immunization will be sufficient. This immunizing treatment is not applicable to individuals who already have been exposed to scarlet fever unless it is demonstrated by culturing that there are no hemolytic streptococci present in the throat. If these streptococci are found in the throat, immunization must be done with immune serum and the immunity will last only a short time, but long enough to permit the active immunization with the antitoxin.

The treatment of the patient ill with scarlet

fever must be done with immune serum, probably from convalescent scarlet fever cases. Although this may present some difficulties for general use but that it can be done, has been demonstrated. With a method for testing the susceptibility of the individual to scarlet fever, a method for successfully treating the disease and a way to immunize the non-immunes against it, there should be a great advance in the control of the disease, if indeed not its complete prevention. It can be pretty safely prophesied that it will be possible to prevent the disease from becoming epidemic to any extent or remaining in a community for any length of time. There remains one important step to be taken to make it entirely preventable, and that is the development of a cultural method simple enough to be generally used for the purpose of culturing the throat and discharges of patients before they are released from quarantine, and also contacts before being released. I am informed by Dr. Dick that this can easily be accomplished although the culture media necessary is a little more difficult to handle than the Loeffler's blood serum now in use for diphtheria culturing, and must be handled in plates instead of tubes. He predicted that the practice will come into general use.

STRICT QUARANTINE ESSENTIAL

Until these new agents and procedures are available it will be necessary to make use of the old methods of control, which consist of strict quarantine of every known case for at least twenty-eight days, isolation of contacts for ten days and efforts made to discover the missed cases. Children should be inspected at the beginning of school for any evidence of communicable disease, and if scarlet fever is present in the community, inspections should be made at regular intervals, excluding all suspicious cases, and all absentees should be visited unless it is definitely known why they are absent. All children with infections of the skin and sore throat should be excluded and observed. I think the schools should almost never be closed for in them we have the best chance to inspect and discover cases.

Whenever possible the patient should be removed to an isolation hospital, and if this cannot be done the patient is to be isolated in the home and concurrent disinfection practiced. At the termination of quarantine the home and persons are to be thoroughly disinfected.

Wisconsin's Progress in Conquering Disease Shown Graphically by State Board of Health Charts

BY C. A. HARPER, M.D.,
State Health Officer,
Madison.

Much has been written about the subjection of numerous common diseases in Wisconsin. To a certain extent we are acquainted also with the fact that certain of the constitutional diseases present a more serious problem, in that the death rates show little diminution and in some cases a constant increase.

We are glad to present in this issue some striking graphs prepared by the Wisconsin State Board of Health outlining what has been accomplished and factors in the task remaining. In the graphical method illustrated in the following pages there is an excellent way of presenting these problems to effect a clear understanding. At the bottom of each graph one may note how Wisconsin compares with the rest of the United States as represented by the Registration Area.

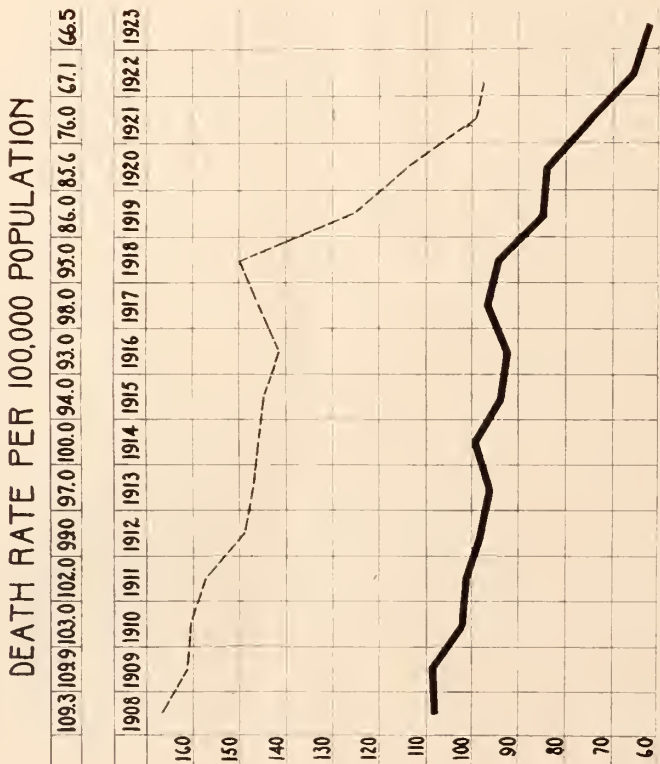
about are the diseases in which most has been done through education and the use of preventive and curative methods. Examples are typhoid and diphtheria. Conversely, we have seen cancer, heart disease, nephritis, among others, rise higher each year in the table of mortality. We are just beginning to give these serious ailments the special emphasis required in the line of periodic examinations, early treatment, and safe and sane ways of living which are the solution for such disorders.

It is a hopeful sign that the present effective programs for eliminating infections in childhood may spell a resultant decline in heart ailments in later life. Child welfare interest becomes, therefore, a definite means of extending the life span of the people.

It should be observed that those diseases where the most pronounced control has been brought

From these graphs we may learn what can be expected in the further conservation of life.

TUBERCULOSIS ALL FORMS

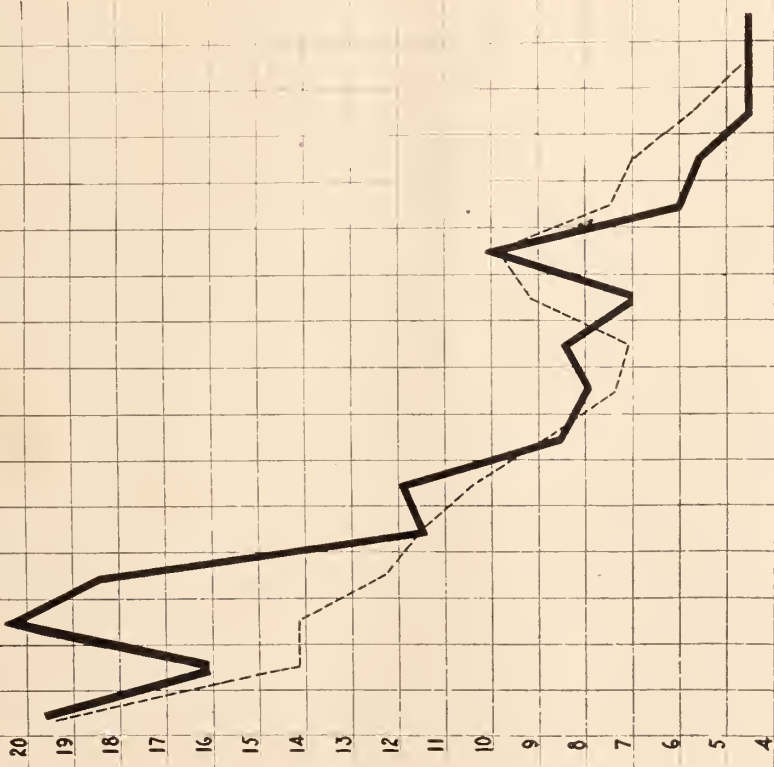


MENINGITIS ALL FORMS

DEATH RATE PER 100,000 POPULATION

19.7 16.2 20.5 18.5 11.7 12.0 8.6 8.0 8.6 7.0 10.2 6.0 5.7 4.6 4.6 4.6

1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923



TOTAL DEATHS

465 382 478 437 280 290 209 197 213 176 259 153 151 123 124 125

DEATH RATE IN REGISTRATION AREA

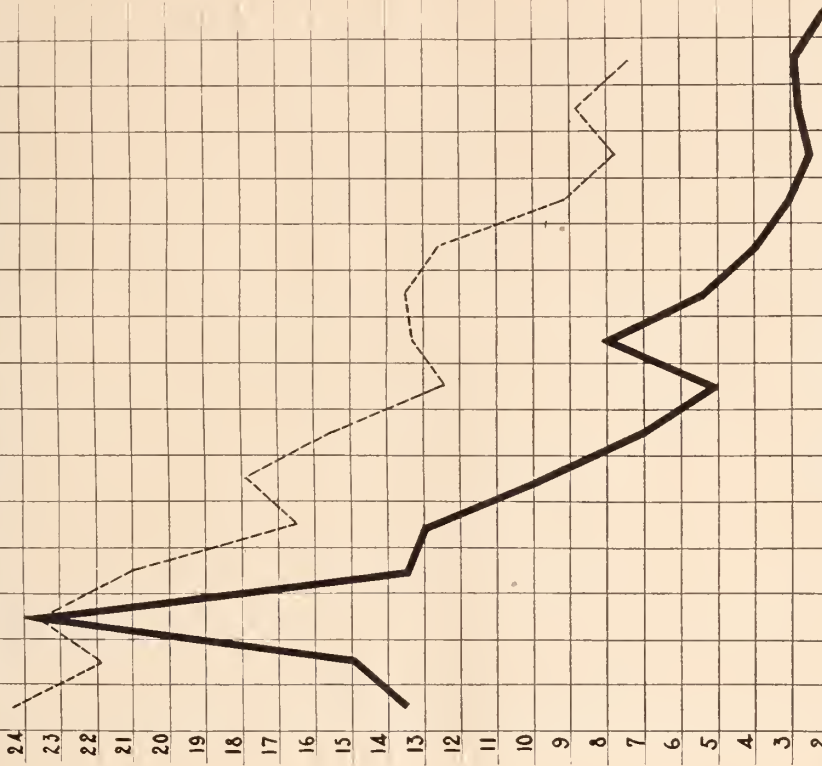
19.4 14.2 14.2 12.3 11.5 10.4 8.8 7.4 7.1 9.2 9.9 6.5 6.0 5.7 4.6

TYPHOID FEVER

DEATH RATE PER 100,000 POPULATION.

13.6 15.0 24.0 13.6 13.0 9.9 7.3 5.0 8.2 5.5 4.0 3.2 2.6 2.9 3.0 2.2

1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923



TOTAL DEATHS

319 352 558 319 310 237 176 123 202 157 102 82 70 78 81 60

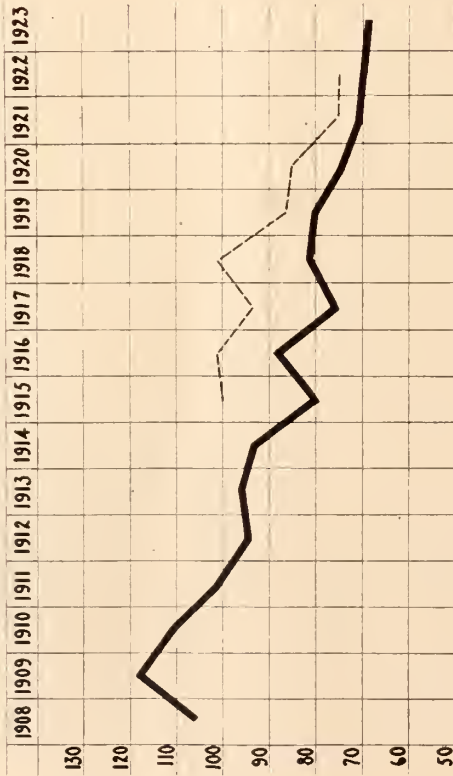
DEATH RATE IN REGISTRATION AREA

24.3 21.9 23.5 21.0 16.5 17.9 15.5 12.4 13.3 13.5 12.6 9.2 7.8 8.9 7.4

INFANT MORTALITY UNDER ONE YEAR OF AGE

DEATH RATES PER 1000 BIRTHS

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
106.6	119.7	112.2	102.7	95.1	96.9	94.6	81.7	89.3	77.7	82.0	80.9	76.5	71.9	70.2	69.9



TOTAL DEATHS

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
5543	6027	5775	5315	5084	5273	5506	4753	5312	4698	4980	4446	4566	4473	4118	4153

— WISCONSIN
- - - - - REGISTRATION AREA

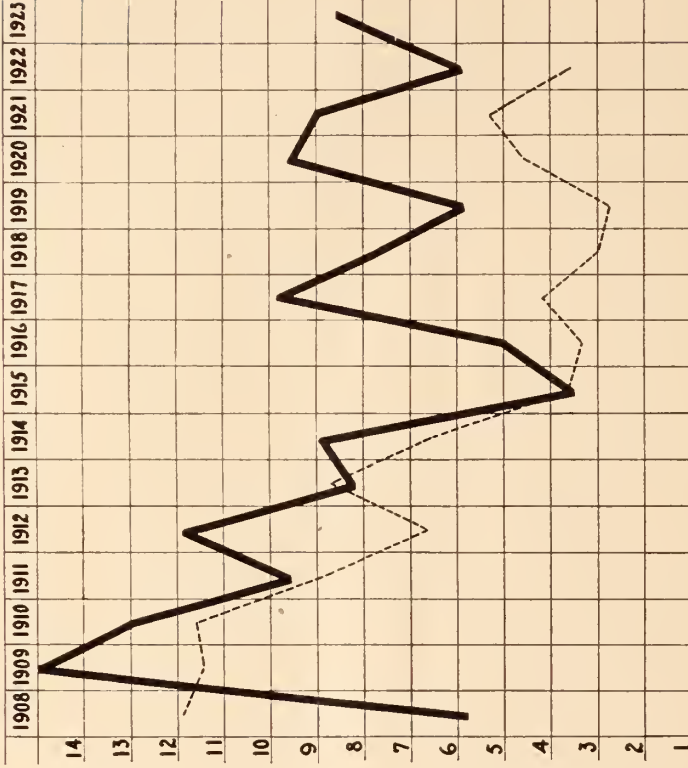
DEATH RATES IN REGISTRATION AREA

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
					100.0	101.0	94.0	101.0	87.0	86.0	76.0	76.0	76.0	76.0	76.0

SCARLET FEVER

DEATH RATES PER 100,000 POPULATION

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
5.8	15.0	13.0	9.6	11.9	8.2	8.9	3.5	5.0	9.8	7.8	5.9	9.6	9.0	6.4	8.7



TOTAL DEATHS

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
133	352	304	225	283	197	215	85	125	245	198	152	252	240	172	239

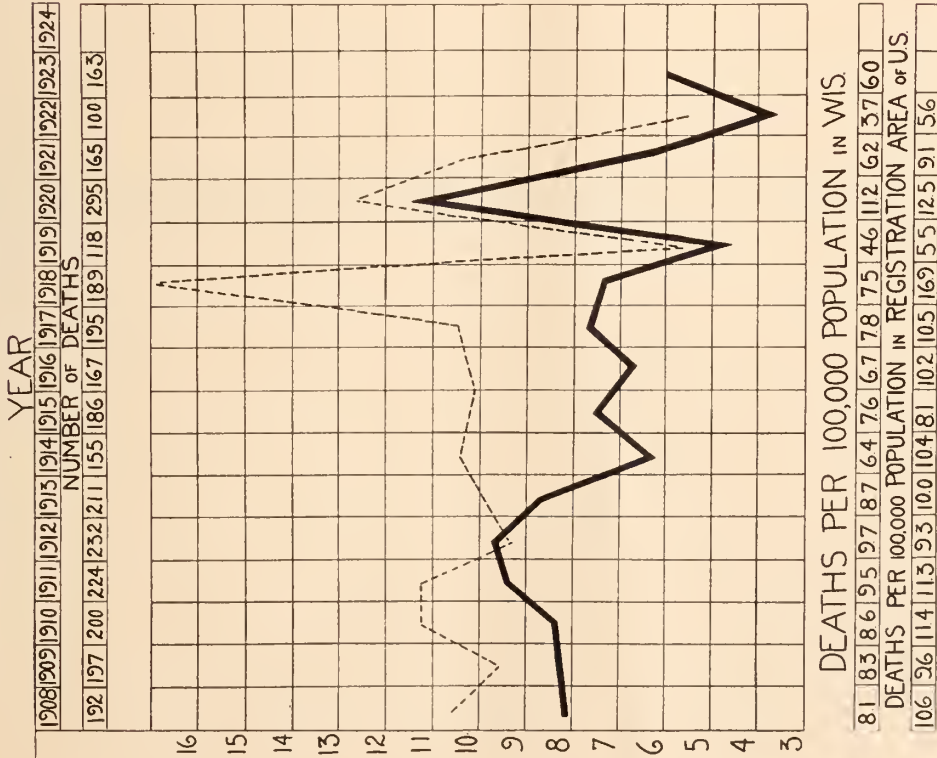
— WISCONSIN
- - - - - REGISTRATION AREA

DEATH RATES IN REGISTRATION AREA

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
11.9	11.4	11.6	8.9	6.7	8.7	6.6	3.6	3.3	4.2	3.0	2.8	4.6	5.3	3.5	3.5

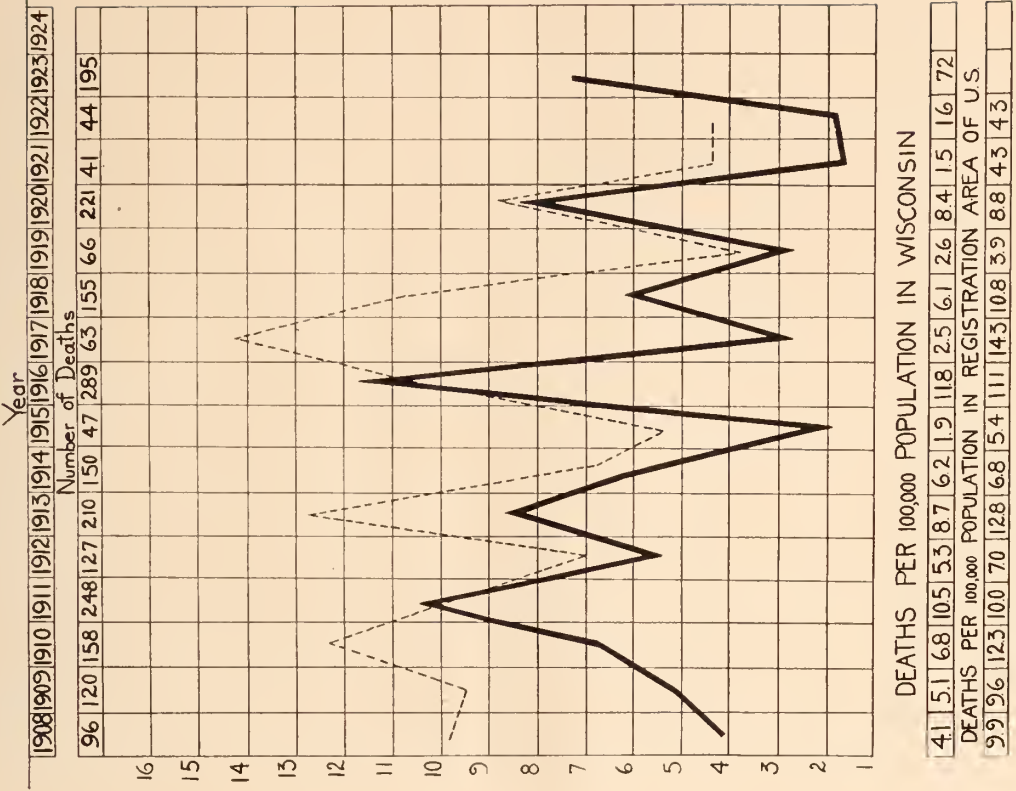
WHOOPIING COUGH

MORTALITY IN WISCONSIN



MEASLES

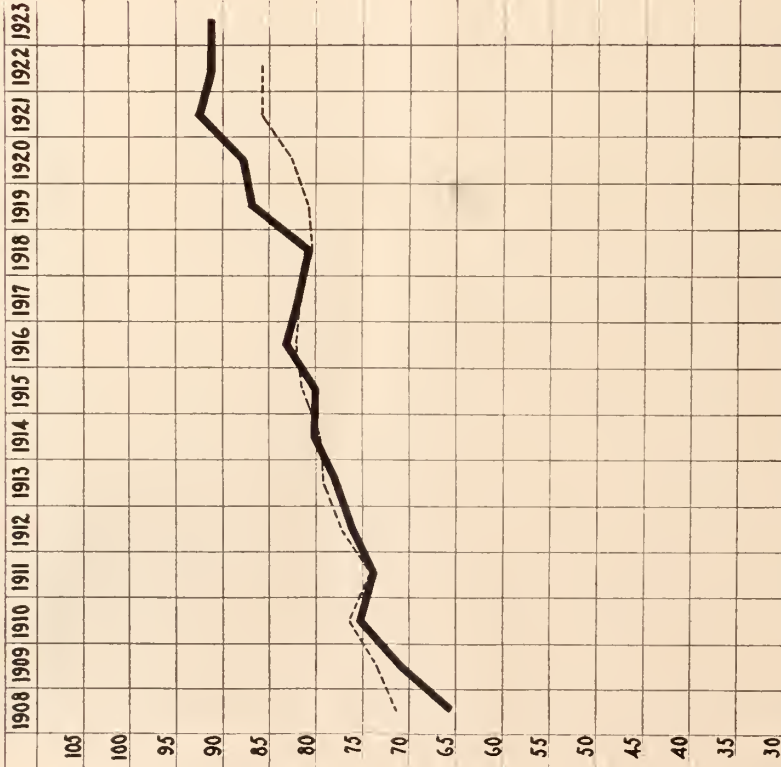
MORTALITY IN WISCONSIN, 1908-1924



CANCER

DEATH RATES PER 100,000 POPULATION

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
65.9	71.0	75.4	74.4	76.7	78.1	80.6	80.5	83.5	82.6	81.4	87.3	88.2	98.0	93.	93.



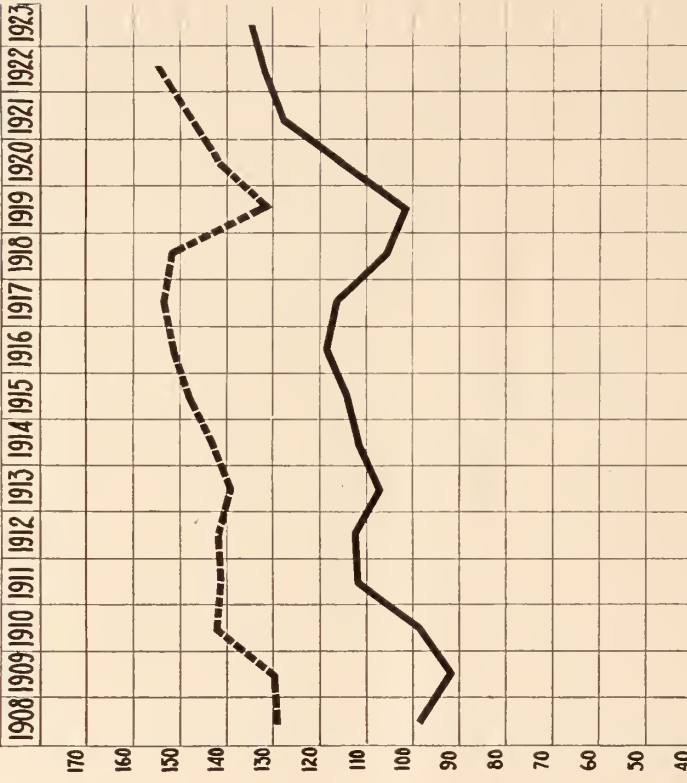
TOTAL DEATHS

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
71.5	73.8	76.2	74.4	77.1	79.0	79.6	81.4	82.1	82.0	80.3	80.5	83.4	86.	86.8	

DEATH RATES IN REGISTRATION AREA

— WISCONSIN
- - - REGISTRATION AREA

ORGANIC HEART DISEASE COMBINED FORMS IN WISCONSIN



DEATH RATE PER 100,000 POPULATION IN WISCONSIN

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
128.3	129.7	141.7	141.1	142.8	138.9	142.2	147.6	150.6	153.8	153.3	131.0	141.9	148.0	155.6	

DEATH RATE PER 100,000 IN REGISTRATION AREA

— WISCONSIN
- - - REGISTRATION AREA

NEPHRITIS ACUTE AND CHRONIC

DEATH RATES PER 100,000 POPULATION

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
52.2	56.2	62.5	63.9	66.9	63.1	62.0	63.9	69.0	68.8	58.8	61.0	61.8	61.0	60.3	60.

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
93.7	95.2	99.0	97.7	103.2	103.0	102.6	105.1	105.6	107.9	97.6	88.1	89.4	85.4	88.5	



TOTAL DEATHS

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
999	1169	1339	1371	1358	1317	1395	1495	1693	1526	1554	1532	1541	1625	1632	

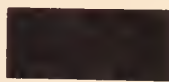
WISCONSIN
REGISTRATION AREA

DEATH RATES IN REGISTRATION AREA

1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923
93.7	95.2	99.0	97.7	103.2	103.0	102.6	105.1	105.6	107.9	97.6	88.1	89.4	85.4	88.5	

United States
Deaths of soldiers, mothers,
infants under 1 year, during
19 months of war by
causes.

Deaths of
soldiers
48,000



Deaths of
mothers
39,000



Deaths of
infants
under 1 year
300,000



War

Child-birth

Lack of care

THE STATE MEDICAL SOCIETY OF WISCONSIN

ORGANIZED 1841

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The Wisconsin Medical Journal, Official Publication

LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES

Table with 3 columns: County, President, Secretary. Lists medical society officers for various Wisconsin counties including Ashland, Barron, Brown, Calumet, Chippewa, Clark, Columbia, Crawford, Dane, Dodge, Door, Douglas, Eau Claire, Fond du Lac, Grant, Green, Green Lake, Iowa, Jefferson, Juneau, Kenosha, La Crosse, La Fayette, Langlade, Lincoln, Manitowoc, Marathon, Marinette, Milwaukee, Monroe, Oconto, Oneida, Outagamie, Pierce, Portage, Price-Taylor, Racine, Richland, Rock, Rusk, Sauk, Shawano, Sheboygan, St. Croix, Trempealeau, Vernon, Walworth, Washington, Waukesha, Waupaca, Wlnebago, Wood.

SOCIETY PROCEEDINGS

BROWN-KEWAUNEE

At the February meeting of the Brown-Kewaunee County Medical Society, the doctors entertained at a Ladies' and Guests' Night, which was the first in the history of the society. It was held at Hotel Northland, preceded by a 6:30 dinner and followed by a varied musical program. Dr. R. E. Minahan was toastmaster. Mr. Earl Dome, boys' secretary of the Y. M. C. A., Green Bay, gave an interesting talk on "The Habits and Customs of the People of Tibet." He also exhibited some rare and interesting curios which he brought from the "Forbidden Land."

Dr. J. M. Sandborn, Appleton, spoke before the Brown-Kewaunee Society on March 3 at the Beaumont Hotel. His subject was "The Present Status of the X-ray in Medical and Surgical Diagnosis." In connection with this address there was shown a motion picture demonstrating the motor phenomena of the stomach observed during its examination by X-ray and fluoroscope.

COLUMBIA

The Columbia County Medical Society met at Portage on March 25. A skin clinic and lecture was held by Dr. Foerster of Milwaukee which proved very interesting and instructive.

DANE

Members of the Dane County Medical Society met at a meeting and dinner on March 17 at the University Club, Madison. Dr. W. T. Lindsay gave a paper on "D'Arsonval Current in Medical Practice;" Dr. F. J. Hodges on "Exact Method of Determining Actual Length of Femur;" and Dr. Peter Bassoe, Chicago, Ill., spoke on "Diagnosis and Treatment of Brain Tumors."

FOND DU LAC

The regular monthly meeting of the Fond du Lac County Medical Society was held at Hotel Retlaw, Fond du Lac, March 11. Dr. Russell D. Herrold of Chicago gave an interesting talk on "G. U." There were twenty-five members present.

MARATHON

At the February meeting of the Marathon County Medical Society, held February 19, the following cases were presented: Dr. J. Freeman, "A Case of Aleukemic Leukemia with Autopsy Findings;" Dr. H. Christensen, "Case of Purpura Haemorrhagica with Splenectomy;" Dr. Joseph Smith, "Effect of X-ray in Leukemia."

The March meeting of the society was held on the 16th of the month at the Wausan Club. Dr. R. F. Fisher presented a paper on "Unilateral Hypertrophy of the Breast in a Twenty Year Old Man;" Dr. M. L. Jones on "Case of Strangulated Testicle;" Drs. M. L. Jones and Freeman on "Case of Paget's Disease with Autopsy Findings;" Dr. W. A. Boslough on "Case of Gastro-Optosis;" and Dr. W. Zilisch on "Problems Concerning County Medical Societies."

MARINETTE-FLORENCE

The Marinette-Florence County Medical Society met at the Old English Grill, Marinette, February 27. Dr. John T. Kaye of Menominee, Mich., read an interesting paper on "Social Diagnosis" in which he took the position that heredity played the principal part in life as against environment. Dr. G. R. Dner, Milwaukee, speaking on "Focal Infection," delivered an instructive talk augmented by the use of many slides.

The Society met again on March 20 at the Grill. Dr. W. E. Fairfield of Green Bay was the speaker of the evening, his subject being "The Standardization in Medical and Surgical Practice." The paper was most interesting and the twenty men present thoroughly enjoyed it.

MILWAUKEE

The regular meeting of the Milwaukee County Medical Society was held at Hotel Pfister on March 13. The program included Dr. C. R. Bardeen, Dean, University Medical School, who spoke on "Development of the University of Wisconsin Medical School;" Dr. Carl Hedblom, Professor of Surgery, University of Wisconsin Medical School, "End Results of Operation for Carcinoma of the Breast;" and Dr. Albert S. Crawford, Associate Professor of Surgery, University of Wisconsin Medical School, "Brief Survey of the Present Situation in Regard to Spinal Cord Tumors."

ROCK

Dr. Nelson M. Percy, surgeon at Augustana Hospital, Chicago, gave an address on "Obstruction of the Intestines" on February 24 before the Rock County Medical Society, which met at the Oriental Cafe, Beloit. Dr. C. C. Smith of Beloit presented a case report. Fifty doctors attended this meeting.

SHEBOYGAN

Dr. E. L. Miloslavieh, professor of pathology at Marquette University, Milwaukee, gave an illustrated lecture on "Chronic Appendix from the Pathological Viewpoint" at the regular meeting of the Sheboygan County Medical Society on March 3.

WAUKESHA

The regular monthly meeting of the Waukesha County Medical Society was held on April 1 at the Oconomowoc Hospital. A paper was presented by Dr. H. M. Barnes.

WINNEBAGO

Members of the Winnebago County Medical Society and the Sixth District Nurses Association met in joint meeting on March 19 at Oshkosh. The program was preceded by a 6:30 o'clock dinner to which guests of the members of the two societies were invited. Miss Mae Kennedy of Chicago, lecturer on psychiatrics, and Dr. R. C. Mullenix, professor of biology at Lawrence College, Appleton, were the speakers.

MILWAUKEE ACADEMY OF MEDICINE

The Milwaukee Academy of Medicine met in meeting on March 10. Dr. Oscar Lotz spoke on "Results of Physical Examination of 5,000 High School Students."

Dr. Carl W. Eberbach, Assistant Professor of Genito-Urinary Surgery, University of Michigan, presented a paper on "Tuberculosis of the Kidney;" and Dr. Arthur J. Patek on "The Recent Epidemic Suggesting Paratyphoid Fever; A study of Five Cases."

The Academy met again on March 24. Dr. Charles H. Stoddard presented a paper on "Heart Failure;" Dr. P. F. Swindle, Marquette University Medical School, spoke on "Electrocardiographic Findings in Normal and Abnormal Heart Conditions;" and Dr. Herbert W. Powers on "Mental and Nervous Phenomena of Cardiac Failure."

NEWS ITEMS AND PERSONALS

With a view to specializing in children's diseases at the Children's Hospital at St. Louis, Dr. L. O. Helmes leaves his practice at Monticello. Dr. Helmes' stay in St. Louis is indefinite although he estimates it at not more than a year, after which he plans to locate at Madison, Wis.

Dr. George V. I. Brown of Milwaukee has been elected a member of the Authors' Club of London. Dr. Brown is the author of a widely read work on oral and plastic surgery. His name was proposed by his friend and colleague, Dr. Eugene S. Talbot of Chicago, who died last December.

Wisconsin enjoyed an unusually healthy period during the last six months of 1924. There were no epidemics in the state, and the record of diphtheria cases was the lowest in the history of registration in Wisconsin, according to Dr. W. D. Stovall, director of the State Laboratory of Hygiene, Madison. The death rate from diphtheria was only 7.1 persons per 100,000—the lowest since records have been kept. The laboratory examined only 37,592 bacteriological specimens for Wisconsin physicians between July and December, 1924, as compared with 50,686 specimens during the same period of 1923.

Plans for a \$200,000 addition to St. Michael's hospital at Stevens Point, to be paid for jointly by the order of the Sisters of the Sorrowful Mother and the city of Stevens Point and Portage County, are fast nearing completion. Tentative plans for the hospital unit call for an addition with a 40-bed capacity, a maternity ward and a contagion ward. Such an addition would be larger than the present hospital.

The Supreme Court of the U. S. recently handed down a decision holding illegal the practice of chiropractic in the Philippine Islands without the approval of the board of medical examiners.

Pending appointment of a permanent head of the Milwaukee County Dispensary, Dr. Herbert C. Dallwig of Milwaukee has been placed in charge. The county board will select a permanent successor to Dr. J. P. Koehler, who resigned recently to become city health commissioner of Milwaukee.

With the greatest success in its history and with quarters already cramped, the Madison General Hospital

association at its annual meeting March 10 announced the need of a new wing to the hospital and a new enlarged nurses' home.

Dr. M. E. McGarty, Madison, a member of the staff of the University Clinic, has obtained a leave of absence from the regents to accept the position of resident surgeon at the Boston City Hospital, Boston, Mass. Dr. McGarty has been on the staff of the University Clinic since Sept. 1.

Dr. S. G. Schwartz, Humbird, has joined the staff of the Marshfield Clinic and will begin his new duties in the near future. At present he is doing post-graduate work on the use of light treatments.

Dr. G. E. Collentine, Milwaukee, recently reported the theft of a book containing 70 prescriptions from his office.

Dr. Harry F. Smith, Milwaukee, announces the removal of his office to 209 Sixth St., Racine.

Dr. M. Iverson had a narrow escape from burning Saturday, March 14, when his Ford sedan caught on fire while he was driving. Before the doctor could get out, his eyebrows were singed and his fur coat had been set on fire, but by jumping into a snow bank he quickly extinguished the fire in the coat. The car was completely destroyed.

Dr. Frank Brockway of Oshkosh has been chosen to succeed Dr. J. W. Lockhart, resigned, as medical director of Sunnyview Sanatorium. Dr. Brockway was at one time medical superintendent of the Wisconsin State Sanatorium at Wales, and was in the tuberculosis division of the army medical corps during the World War, thus bringing a wide and valuable experience to the sanatorium.

A large addition to the Milwaukee hospital, Cedar and 22nd Sts., Milwaukee, will be made at once, according to plans announced. The new unit will be five stories high and 44 by 150 feet. It will be of reinforced concrete with tile walls.

Milwaukee hospital workers, physicians and surgeons participated in a round table discussion of modern hospital problems at a meeting on March 12 under the auspices of the Marquette University Hospital. Dr. Malcolm T. MacEachern of Chicago, internationally known hospital worker, was in charge of the meeting. Among the features of the meeting were a discussion of problems of hospital administration, hospital standardization, occupational therapy and diagnostic proverbs.

Two Milwaukee physicians were dispatched to Murphysboro, Ill., to assist in the relief work in that tornado-stricken city by the Franciscan sisters, whose hospital in that city was destroyed. They are Dr. Robert O. Brunkhorst, member of the staff at St. Joseph's hospital and Dr. Dennis E. Pierce, house physician at the same institution. The physicians left Milwaukee completely equipped to open a first aid station.

Dr. Simon W. Luban, a young Milwaukee physician, was sentenced to one year in the house of correction, and fined \$1,000 when found guilty of charges of manufacture of liquor and maintaining a common nuisance at his home.

Dr. J. V. R. Lyman, Eau Claire, fractured his left hip in a fall on the floor of his office laboratory recently. Dr. Lyman's mother, who in a fall some weeks ago, also fractured her hip is recovering at the same hospital. This is Dr. Lyman's third accident within a period of but a few years.

Dr. R. D. Boynton, Kilbourn, has been appointed chief medical examiner for Columbia County for applicants for entrance to the Citizens' Military Training Camp, which is held each summer under supervision of the War Department, Camp Custer, Mich. Successful applicants are given a thirty day course of instruction in the rudiments of modern warfare at the expense of the national government.

Dr. Ira F. Thompson, Milwaukee deputy health commissioner, resigned recently to accept a position in Syracuse, N. Y., with Dr. George C. Ruhland, former health commissioner, who resigned last year. He will assume duties at Syracuse on May 1 with the Millbank Foundation.

SOCIETY RECORDS

NEW MEMBERS

Engel, A. C., New Holstein.
 Ohswaldt, H. F., Oconto Falls.
 Schwartz, G. J., Kenosha.
 Hefty, C. A., New Glarus.
 Corlett, W. S., Blanchardville.
 Montgomery, R. B., Madison.
 Quisling, Sverre, 421 No. Patterson St., Madison.
 Anderson, Harold B., Beloit.
 Borsack, K. K., Fond du Lac.
 Shuart, C. D., Brandon.
 Keskey, Geo., Schwartz Bldg., Kenosha.
 Konop, Edward J., Sawyer.
 Boots, F. W., Briggsville.
 Snyder, Karl, Portage.
 Tierney, E. F., Portage.
 Frisbie, R. L., Fairchild.
 Harper, Glenn C., Durand.
 Crawford, Albert S., 122 W. Washington Ave., Madison.
 Urquhart, C. C., Hurley.
 Weaver, L. A., Iron Belt.
 Gonce, J. E., Wisconsin General Hosp., Madison.
 Hager, B. H., 122 W. Washington Ave., Madison.

CHANGES IN ADDRESS

Hanko, Mary E., Plain—Lime Ridge.
 Slaney, A. F., Kenosha—2621 Wells St., Milwaukee.
 Smith, H. F., 445 Milwaukee St., Milwaukee—209 6th St., Racine.
 Hill, B. S., Madison—Kenosha Clinic, Kenosha.
 Thompson, J. B., Wittenberg—1653 Taylor Ave., Racine.
 Grigsby, R. O., Kenosha—Ashland.

DEATHS

Dr. C. S. Brewer, Waukesha, died on January 18, 1925, from cancer of the stomach. Doctor Brewer was born in the year 1874. He graduated from Bennett Medical College in 1898 and Chicago Medical College in 1902. He served in the United States Army from 1917 to 1920, being stationed at the Hawaiian Islands.

Doctor Brewer was a member of the Waukesha County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Dr. J. K. Schreiner, formerly physician and surgeon at La Crosse, died at Oslo, Norway, on March 10. Dr. Schreiner practiced medicine at Westby for about thirty years, coming to La Crosse the early part of 1919. He returned to Norway in the fall of 1924 and has been ill since that time. Death was attributed to cancer of the pancreas. He is survived by a son, Leif Schreiner of Two Rivers.

Dr. Schreiner was a member of the La Crosse County Medical Society, the State Medical Society of Wisconsin, and the American Medical Association.

Dr. Edward Everett, 915 University Avenue, Madison, a specialist in the treatment of the eye, ear, nose and throat, died at Beloit on March 17 of apoplexy. It is understood that Dr. Everett has left a fund for the endowment of a scholarship in the school of medicine at the University of Wisconsin.

Dr. A. C. Czibulka, in charge of the Plymouth office of Drs. Howe & Glaubitz of Sheboygan, died at St. Nicholas Hospital in Sheboygan on March 25 of pneumonia. Dr. Czibulka was born in Vienna sixty years ago and was the son of the widely known Czibulka, composer of music. He is survived by his wife and an uncle, Dr. Clemens of Bridgeport, Conn.

CORRESPONDENCE

The Nebraska State Medical Journal, Madison, Nebr.,
 February 26, 1925.

Mr. J. G. Crownhart,

The Wisconsin Medical Journal,
 Milwaukee, Wis.

My dear Sir:

I have read with much interest your editorial "Our 1925 Meeting." Never saw the problem better stated—and I want you to know it.

With kindest regards,

Sincerely,

F. A. LONG, *Editor*.
 March 5, 1925.

Wisconsin Medical Journal,
 Milwaukee, Wis.

Gentlemen:

Please publish the subjoined notes, and oblige.

Very truly yours,

H. W. LOEB,
 1402 South Grand Blvd.,
 St. Louis, Mo.

THE AMERICAN BOARD OF OTOLARYNGOLOGY.

The American Board of Otolaryngology will hold its first examination during the meeting of the American Medical Association in Atlantic City, May 25th to 28th.

According to the rules of the board, applicants are divided into three classes.

Class I. Those who have practiced Otolaryngology ten years or more.

Class II. Those who have practiced Otolaryngology five years and less than ten years.

Class III. Those who have practiced Otolaryngology less than five years.

The type of examination is different for each class.

The Secretary, Dr. H. W. Loeb, announces that thus far over three hundred applicants have been made.

WISCONSIN AGAIN

BY SENATOR J. L. BARBER, M.D.

Marathon, Wis.

Speed, Speed, locomotive, along the steel rail,
Speed swift as the clouds that are borne by a gale,
Through forest and meadow, o'er prairie and plain,
Take me back to the state of Wisconsin again.

Oh, why was I tempted to wander away,
From the state of Wisconsin, oh, why did I stray:
The glory of England or splendor of Spain,
Shall tempt me no more from Wisconsin again.

The briny Atlantic I've crossed and recrossed,
And on the wild billows have often been tossed.
When sea-sick and weary on shipboard I've lain,
I have sighed for Wisconsin again and again.

I have strayed on the shores of the Emerald Isle,
Where bright shamrocks blossom and sweet
maidens smile,
Though the scenes were enchanting I could not
refrain
From wishing myself in Wisconsin again.

I have trod Caledonia's famed mountains and
vales,
Her heaths and her meadows, her glens and her
dales,
I've heard her sheep bleating and bagpipe's wild
strains,
Yet have wished myself back to Wisconsin again.

I have sat near the shade of fair Italy's bowers,
Surrounded by sunshine, by birds and by flowers,
I have traveled o'er England, o'er France and o'er
Spain,
And now I'll return to Wisconsin again.

I have viewed California's far-famed golden shores,
Its rivers and mountains and silvery ores,
Its orchards and vineyards and green fields of
grain,

Yet my thoughts wandered back to Wisconsin
again.

In the sweet sunny South where the orange tree
grows,

And the proud Mississippi toward the gulf flows;
On its banks I strayed or have carelessly lain,
And have thought of Wisconsin again and again.

Speed, Speed, locomotive, along the steel rail,
May your wheels never weary, your steam never
fail;

Through forest and meadow, o'er prairie and plain,
I long to behold dear Wisconsin again.

Copyright, J. L. Barber, M.D., April, 1925.

TRI-STATE TOUR

The medical profession of America who are in good standing in their State Medical Societies and members of their families are cordially invited to participate in the Inter-State Post Graduate Assembly clinic tour to Canada, British Isles and France, leaving Chicago May 17 and sailing from Montreal May 23. There is no restriction as to territory. Dr. Charles H. Mayo of Rochester, Minnesota, will be the presiding officer of the tour and Dr. William B. Peck of Freeport, Illinois, Managing-Director.

The following distinguished members of the profession and citizens of the foreign countries are in charge of the arrangements in the clinic cities: *Toronto*: Dr. Alexander Primrose, Dean of the University of Toronto. Clinics will be conducted in the different branches of medical science at the Toronto General Hospital, the Medical Building of the University of Toronto and other Institutions of the city. *Montreal*: Dr. Charles F. Martin, Dean and Dr. Jonathan C. Meakins, Director of the Department of Medicine of McGill University. *London, England*: Mr. Philip Franklin, F. R. C. S., Director of the American Hospital and Honorary Organizer; Sir Humphrey Rolleston, Bt., President Royal College of Physicians; Sir St. Clair Thomas, President of the Royal Society of Medicine; Sir William Hale White, Retiring President Royal Society of Medicine; Sir William Arbuthnot Lane; Sir Holburt J. Waring, Chairman of the medical program committee; Mr. W. Girling Ball, F. R. C. S.; Mr. H. W. Carson, F. R. C. S., and the honorary secretaries of the different specialties.

Special social features of the London program will include the conferring of the honorary membership of the association upon H. R. H. Duke of York, the Rt. Hon. Austen Chamberlain, Minister of Foreign Affairs; Rt. Hon. Neville Chamberlain, Minister of Health; Sir Alfred Bower; Lord Mayor of London; Lord Desborough, Chairman of the Pilgrims' Society; Sir Humphrey Rolleston, Bt., President Royal College of Physicians; Sir John Bland Sutton, President Royal College of Surgeons; Sir St. Clair Thomson, President Royal Society of Medicine; Sir Holburt J. Waring, Chairman of Medical Program Committee; Sir John Y. W. MacAlister, Secretary Royal Society of Medicine.

Receptions and luncheons will be given by the Lord Mayor of London, the presidents of the Royal Societies of Medicine and Surgery, the English-Speaking Union, the Pilgrims' Society, American Chamber of Commerce and members of the British Government.

Liverpool: Sir Robert Jones, Mr. R. E. Kelly, F. R. C. S., and members of the staffs of the following hospitals: Royal Infirmary, Royal Southern Hospital, Northern Hospital, Liverpool Stanley Hospital, Royal L'pool Children's Infirmary, Hospital for Women, Liverpool Maternity Hospital.

Manchester: Sir William Milligan and members of the staff of the Royal Infirmary.

Leeds: Sir Berkeley Moynihan and members of the staff of the University of Leeds.

Dublin: Sir William DeCourcy Wheeler, Past President of the Royal College of Surgeons of Ireland, Honorary Organizer; Sir William Taylor; Sir Arthur Ball; Sir Robert Woods and their colleagues. The clinic work will be distributed among nine hospitals. The Governor-General of the Irish Free State has invited the assembly to a garden party at the Government House. A reception committee has been formed consisting of the Provost of Trinity College; President of University College; President, Royal College of Physicians; President, Royal College of Surgeons; President, Royal Academy of Medicine, and President of Association of Surgeons. These gentlemen, separately or collectively, will entertain the assembly on the night of its arrival. The Hon. Lady deCourcy Wheeler is organizing a Ladies' Committee to take care of the visiting doctors' wives while the doctors are at work.

Belfast: Prof. Andrew Fullerton, C. B., C. M. G., Head of the Department of Surgery, Queen's University, Chairman; Sir Thomas Sinclair, Emeritus Prof. of Surgery and a member of the House of Parliament; Prof. W. W. D. Thomson, Head of the Department of Medicine; Prof. R. J. Johnstone, Head of the Department of Gynecology; Prof. C. G. Lowry, Head of the Department of Obstetrics; Prof. J. E. MacIlwaine, Head of the Department of Therapeutics and Pharmacology; Dr. A. J. Craig and Dr. H. Hanna, Department of Ophthalmology and Otolaryngology; Prof. Symmers, Head of the Department of Pathology and Dr. Thomas Houston (Haematologist). In presenting the clinics and demonstrations the teaching staff of Queen's University will be associated with that of the Royal Victoria Hospital.

The social features will include a garden party given by Sir James and Lady Craig, Prime Minister of Northern Ireland at Stormont Castle.

Glasgow: Sir Donald MacAlister, K. C. B., Principal of the University of Glasgow, Chairman; Dr. James Carslaw, Secretary and members of the staff of the medical department of the University of Glasgow.

Edinburgh: Sir Harold J. Stiles, Head of the Department of Surgery, University of Edinburgh, Chairman; Dr. John D. Comrie, Secretary; Sir Norman Walker; Sir David Wallace; Sir E. A. Schafer and associates at the University of Edinburgh and the Royal Infirmary.

Newcastle-upon-Tyne: Mr. George Grey Turner, F. R. C. S., and associates on the staff of the Royal Infirmary of Newcastle and the University of Durham.

Paris: Prof. Theodore Tuffier of the surgical department Faculty of Medicine, Paris, Chairman; Dr. T. deMartel, Secretary. Practically all the hospitals of Paris are contributing programs for the benefit of the American physicians.

Among the numerous social functions of Paris are the following: A reception given on June 22nd by the Academy of Medicine; a large reception given in honor of the American physicians by the Municipal Council of Paris at the Hotel de Ville (City Hall); an evening reception and banquet by the Inter-Allied Assembly and a reception by Professor Tuffier at his country home, which is located near Versailles. Honorary memberships will be conferred upon distinguished statesmen, soldiers and citizens of France.

The tour is being conducted as the result of an invitation extended to the American physicians through this association by the leading universities and medical institutions of Canada, British Isles and France.

Clinic space in all the clinic cities has been arranged so as to accommodate five hundred physicians. The clinics will cover every branch and specialty of medical science. The price of the tour, including traveling expenses, will be under \$1,000.00.

Two ships have been chartered to take the physicians abroad, the "Ausonina" of the Cunard Line and the "Doric" of the White Star Line. They are fine new one-cabin ships with excellent appointments. Trans-Atlantic professional programs will take place on board both ships eastbound and will be participated in by the physicians of the tour.

Reservations can be made by sending the reservation fee of \$65.00 per person to Dr. William B. Peck, Managing-Director, Freeport, Illinois. There are plenty of first-class accommodations available.

The registration March 17th was 375 physicians and total number, including members of the physicians' families 625. Forty-one states are represented, and quite a number of provinces of Canada.

FEDERAL AID FALLACY

The statement which President Coolidge furnished departmental heads with about a year ago concerning the fallacy of "federal aid" and a request for curtailment of this sort of subsidy, was reiterated in his message to the 68th Congress when he said:

"For federal aid to state the estimates provide in excess of \$109,000,000. These subsidies are prescribed by law. I am convinced that the broadening of this field of activity is detrimental both to federal and state governments. Efficiency of federal operation is impaired as their scope is unduly enlarged. Efficiency of state governments is impaired as they relinquish and turn over to the federal government responsibilities which are rightfully theirs. I am opposed to any expansion of these subsidies. My conviction is they can be curtailed with benefit to both the federal and state governments."—*Ohio State Medical Journal*.

Moul-Boldt Basic Science Bill Again Advanced in Assembly; Dentists-Optometrists Excluded by Amendment

This article was written on April 1st. Legislative action after that date will be contained in our Legislative Bulletin.—
Editor's Note.

The Wisconsin Legislature again advanced the Basic Science bill during March. The Joint Committee on Finance reported the bill for passage with but Senator Garey, Edgerton, dissenting. When the bill reached the Assembly floor for its second engrossment, Assemblyman C. B. Perry, Milwaukee, offered an amendment to exclude dentists. Assemblyman James Peterson, La Crosse, offered an amendment to the amendment to also exclude optometrists. Both were accepted. Assemblyman Henry A. Staab, Milwaukee, offered an amendment to provide that the board should be composed of "lay educators" and that students in attendance at any professional school on February 1, 1925, might take the basic science examination, waiving a high school education. This amendment was also adopted and the bill then advanced. The bill may have been considered for final passage in the lower house by the time this Journal is printed.

No opposition to the bill is expected in the Assembly and following action on final passage the bill will then go to the Senate for concurrence. When the bill reaches the Senate it will be referred to the Senate Committee on Education and Public Welfare. This Committee is composed of Senator C. B. Casperson, Frederic, chairman, and Senators Howard Teasdale, Sparta; Walter H. Hunt, River Falls; William L. Smith, Neillsville, and Herman T. Lange, Eau Claire.

SENATE ACTION IN APRIL?

Following report of this committee the bill will then be considered by the Senate as a whole. Should the Assembly pass the bill, as anticipated, it will probably reach the floor of the Senate for a general vote on concurrence the latter part of April.

While the Committee on Public Policy and Legislation of the State Society feels that dentists and optometrists alike should have been included in this basic measure solely in the interest of public welfare, their separate organizations insisted upon exemptions and the one amendment exempting

both was the result. Your Committee does not feel that the exemptions granted by the amendment vitally affect the bill as a whole and hopes that all members will continue their efforts that this basic legislation may receive favorable consideration and enactment at this session.

TESTIMONY BILL KILLED

The Senate by a vote of 24 to 9 killed a bill suggested by the Association of Circuit Court judges and the State Bar Association which provided for extending the present limitation upon physicians' testimony. Senator (Doctor) J. L. Barber, Marathon, led the fight on the bill. Senator Barber declared that it was absolutely essential in the interest of public health that the people of the state continue to have the feeling that they could tell their physician everything knowing that the history of their personal life would never be revealed. In this respect, Senator Barber pointed out, the physician, the priest and the lawyer must ever have and maintain the present laws that prevent them from disclosing the knowledge they gain in their professional life.

"This bill," declared Senator Barber, "would, in ease after ease, remove that protection. Physicians would be forced to testify against their will—often to the detriment of their patients."

"The bill might work a justice in an occasional isolated case," said Senator W. F. Quick, Milwaukee, "but it would work an untold injury in the many."

OPTOMETRY SUBSTITUTE ADOPTED

At a hearing before the Assembly Committee on Public Welfare, a substitute measure was recommended, which recommendation was later adopted by the Assembly. The original bill, if enacted, would have denied to all physicians entering this state after January 1, 1926, the right to practice optometry. Physicians entering the state after that date and desiring to fit glasses would have been placed in the same category as any applicant for registration as an optometrist. This would have required them to have attended an optometry school and to have taken the optometry examination. This portion of the bill was dropped from the substitute, while the intent of the substitute was to retain the straight exemption, some additional clarifying phrase may be necessary.

W. C. T. U. OPPOSES COMBINED PERMITS

On Thursday, March 26th, the Assembly Committee on Excise and Fees held a hearing on Bill 466A introduced by the Committee. This bill provides that all privileges under the state prohibition act granted physicians and druggists might be had in one permit at a cost of \$10. Mr. J. G. Crownhart, Secretary, appeared in favor of the bill pointing out that this measure was not a "wet" or "dry" question but merely a bill that would make the state permit feature correspond more closely to the federal permit law where all privileges are granted in one permit without cost.

Mr. Crownhart pointed out that should this present precedent be maintained and should the state decide to have permits under the state narcotic act, there would be a permit for every separate form of a narcotic at \$10 each. He said that the State Society was in favor of this measure only as a bill that would correct a precedent which, if carried to a logical conclusion in future legislation, would work a material injustice to all those practicing medicine.

"The purpose of this permit section is not to license the sale of liquor," declared Mr. Crownhart. "Its purpose is only regulatory and supervisory. The permit fee should thus be only a fee that would cover cost of administration. At its present cost with divided permits, the state receives over \$30,000 annually. Of this amount less than \$3,000 represents the cost of administration. The balance represents a tax upon physicians used for the purpose of prosecuting violators. There appears to be no good reason why physicians as a

class should pay any more for this work than any other class of citizens."

The Committee has withheld report upon this measure until it can confer with Speaker Herman W. Satchjen, former state prohibition commissioner. Mr. Satchjen is understood to be heartily in favor of the bill, which was introduced at his suggestion.

Mrs. Flora C. Hopkins, Madison, president of the Dane County W. C. T. U., appeared in opposition to the bill. She declared that it would only make it easier for physicians to sell prescriptions illegitimately; that more physicians would take advantage of the privilege if it might be obtained in one permit; and that it was but a step to tear down the state dry enforcement act. She declared that alcohol had no medicinal value and that it would be better to prohibit its use entirely.

ADVERSE REPORT ON PANEL BILL

The Assembly Committee on Labor reported adversely, by a four to three vote, Bill 300-A. This bill provided that employees might select their own physician in cases under the workmen's compensation act. The bill would virtually abolish the present panel system. Mr. Fred Wilcox and Mr. R. G. Knutson, members of the state industrial commission, appeared as opposed to the bill declaring that the present panel system, while not entirely perfect, worked out to a better interest of the injured employees than would an unrestricted choice. The bill was introduced by Assemblyman A. C. Ruffing, Milwaukee, as being recommended by the Wisconsin State Federation of Labor.

Brief Digest of Vaccination Laws for United States and Possessions

COMPILED BY MISS LUCILE McCARTHY,

WISCONSIN LEGISLATIVE REFERENCE LIBRARY.

Because of the aroused public interest in the subject of vaccination following reoccurrence of small pox, the Wisconsin Reference Library compiled the following summary of state laws pertaining to vaccination. It will be noted that thirteen states have no laws whatever pertaining to this subject. The digest was prepared the latter part of February and is reprinted herewith for the information of our readers.

Alabama—Code 1923, sec. 2047. Municipalities may provide for a system of compulsory vaccination and enforcement thereof.

Arizona—Rev. Stat. 1913, sec. 4396. Vaccination of

minors in cities compulsory. Parents or guardian must have child vaccinated.

Arkansas—No compulsory vaccination.

California—Gen. Laws, 1923 (Deering) Act 6249-6251. Provides for general vaccination for all public and private schools. Under control state board of health.

Colorado—Comp. Laws, 1921, sec. 932. Board of health of every town, city or county may provide for vaccination.

Connecticut—Gen. Stat. 1918, sec. 888, 2432-33. Board of school visitors may require every child to be vaccinated before school attendance. Health officers may require general vaccination.

Delaware—Rev. Code 1915, sec. 739. Board of

health may make regulations providing for vaccination.

Florida—No compulsory vaccination law.

Georgia—Ann. Code, 1922, sec. 1437. Co. school board may require vaccination as a prerequisite to admission to school.

Idaho—No compulsory vaccination law.

Illinois—No compulsory vaccination law.

Indiana—No compulsory vaccination law.

Iowa—Code, 1924, sec. 6846. When smallpox is prevalent city board of health may prohibit attendance of school children who have not been vaccinated within 5 years.

Kansas—No compulsory vaccination law.

Kentucky—Stat. 1922, sec. 4607-18. Vaccination compulsory for all persons in the state—children when 12 months old.

Louisiana—No compulsory vaccination law.

Maine—R. S. 1916, pp. 448, 360, Laws 1921, ch. 41. Compulsory for workers in paper mills. Compulsory for school attendance. In case parent opposed to vaccination, compulsory only in time of epidemic.

Maryland—Ann. Code, 1911, p. 1733, sec. 66. Child must present certificate of vaccination before being admitted to school.

Massachusetts—General laws, 1921, ch. 76, sec. 15, ch. 111, sec. 181-5. Unvaccinated child not to attend school except on certificate of health from physician. Boards of health shall enforce vaccination and revaccination of all inhabitants if necessary.

Michigan—Comp. laws, 1915, sec. 5086. Every township may require general vaccination under the board of health.

Minnesota—Stat. Supp. 1917, sec. 4640 (8). Unvaccinated child may be excluded from public school only in case of smallpox epidemic.

Mississippi—Ann. Code, 1917, sec. 4841. County supervisors may provide for compulsory vaccination in counties where smallpox exists.

Missouri—No compulsory vaccination.

Montana—Rev. Code, 1921, sec. 2481. Compulsory vaccination for school children when smallpox exists or is threatened.

Nebraska—No compulsory vaccination.

Nevada—No compulsory vaccination.

New Hampshire—Pub. Laws, 1925. Town selectmen in their discretion may require general vaccination by reason of the spreading of smallpox.

New Jersey—Comp. Stat. 1901, p. 4766, sec. 121. Board of education may exclude teachers and pupils if not successfully vaccinated unless excused because of health certificate from school physician.

New Mexico—Stat. 1915, sec. 4617-20. Vaccination compulsory for adult population and children of school age. Children not vaccinated excluded from school.

New York—1917 Consol. Laws, B. K. 44, sec. 310-11. Vaccination of all children required for admission to schools in cities 1st and 2nd class; in other school districts unvaccinated children excluded if smallpox in the district.

North Carolina—Consol. Stat. 1919, sec. 7162-63. On appearance of smallpox in neighborhood, unvaccinated children excluded from schools.

North Dakota—Laws, session of 1919, ch. 236. Repealed compulsory vaccination law. Made vaccination not necessary for school attendance.

Ohio—General code, 1921, sec. 7686. School boards of each district may make regulations in their discretion to secure vaccination of school children.

Oklahoma—No vaccination required.

Oregon—No vaccination required.

Pennsylvania—Stat. 1920, sec. 9038. Certificate of successful vaccination required for school attendance.

Rhode Island—Gen. Laws, 1923, p. 360, sec. 1049. Certificate of successful vaccination required for school attendance unless excused by certificate of health.

South Carolina—Code of laws 1922, sec. 1492-96. Compulsory for attendance upon all schools, and for cities and towns—also during apprehended danger for sparsely settled communities.

South Dakota—Rev. Code, 1919, sec. 7691-93. Child who shows physician's certificate of successful vaccination within 5 years not prevented from school attendance.

Tennessee—Ann. Code, 1917, sec. 3114a7-3114a8. Municipal and county officers may compel general vaccination.

Texas—Civil statutes, 1914, Art. 4553a rule 27-28. After case of smallpox in schoolhouse, school may be reopened after disinfection and after vaccination of all teachers and pupils.

Utah—Comp. Laws, 1917, sec. 2763. Unlawful to compel vaccination or to make vaccination a condition precedent to attendance at school.

Vermont—Gen. Laws, 1917, sec. 6245. During existence of smallpox in a town, state board of health to provide vaccine virus and safe vaccination for persons needing it.

Virginia—Gen. Laws, 1925, 1493, 1529-30. Local health authorities may compel certificate of vaccination. Compulsory for school attendance for teachers and pupils (School board of any city or county may suspend operation of this law).

Washington—Comp. stat., 1922. Vaccination shall not be made a condition precedent to school attendance.

West Virginia—Code 1923, p. 2720, sec. 20. Compulsory vaccination enforced upon any part or parties by county court upon petition of 100 voters. (Compulsory vaccination may be enforced in schools by county courts in districts where smallpox prevails.)

Wisconsin—Stat. 1923, sec. 4071. Vaccination condition precedent to attendance at school when smallpox present in the community.

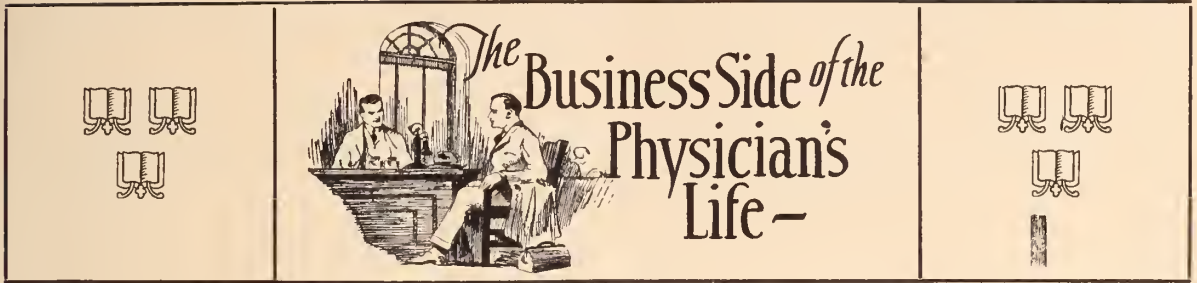
Wyoming—Comp. stat. 1920. State board of health may require.

Alaska—Vaccination not compulsory.

Hawaii—Rev. Laws 1915. Vaccination compulsory for all children. Must be vaccinated when 6 months old.

Philippine Islands—Laws of 4th P. I. Legislature, sec. 1051-57. Vaccination compulsory for every one in P. I., including school children and infants 3 months old and over.

Porto Rico—Laws session, 1912, p. 131, sec. 29. Vaccination compulsory for everyone, adults and children.



"Really, you know, bankers have much the same sort of problem as have the doctors," said a banker friend of mine lately.

"We too are resorting to lay educational work in an effort to acquaint the public generally with certain fundamental facts which they should know—but generally do not."

Inasmuch as I was then consuming a most excellent cigar proffered by said banker, courtesy demanded that I listen. I thought I was in for an old story, but if it was an old story it was told in a new way.

He said that people too often think of banks as places to cash checks, make deposits, and sometimes secure loans. Not different, he pointed out, than the people who think of doctors as people who cure disease.

"Now just as most people overlook the great field of disease prevention, so do they neglect a service that any bank or security house has to offer. This service is offered for the same reason that doctors suggest periodic health examinations. Both have prevention as the motive."

Punctuating his sentences with waves of his cigar, he went on to tell how financial houses are in position to give an almost unlimited confidential service on inquiries respecting either the standing of some concern or of securities.

"We welcome such inquiries," he said. "There is no charge for this service. It is service that we are glad to perform and we only wish more would avail themselves of it.

"Just the other day Jim brought us a bond that he had taken at market value as payment of an otherwise doubtful account. He asked us to sell it but almost immediately we discovered that it was a bond that had been stolen. Although the debtor was unaware of that fact and had offered it in all good faith, Jim could have made sure that this was a perfectly good bond by just a telephone call.

"This morning one of our clients called up wanting to know what I thought of the stock of a certain motor car company of Canada. I asked him whether he meant the stock itself or whether it was 'bankers' shares' that he had in mind. The first was fine—the second we certainly could not recommend in this particular instance."

"What's 'bankers' shares?'" I asked.

And then he explained that someone buys, for example, one share of stock of a certain company. He deposits this in trust and then issues against it, say ten shares or certificates of a tenth part interest in that one share held in trust. Now in this particular instance it was these "bankers' shares" that this client considered purchasing. He explained this over the phone, told the client to take his pencil and multiply the price of the one "bankers' share" by ten or the number issued against the one share of stock held in trust. He said he could hear that pencil scratching and in a minute the client said, "\$600.00."

And then he was told that a share of that stock was not worth \$600. That it could be bought today for something under \$500. In other words, unless that stock had an unprecedented rise, that client would have lost immediately \$10 on each and every "bankers' share" he purchased. A telephone call saved him \$50.

"I have given you but two instances," he added as some customers came up to see him. "I could tell you of many others but in the meantime just remember that when you have a question regarding securities or men, ask your financial house. They will give you honest information promptly.

"Where do we gain? Well, you tell me what doctors gain when they urge disease prevention? Just satisfaction of accomplishment and later—good will."

And the final punctuation was not a wave of the cigar—it was just a good smile.

THE JOURNAL BOOK SHELF

Concealed Tuberculosis or "The Tired Sickness." George Douglas Head, B.S., M.D. P. Blakiston's Son & Co., Philadelphia; pp. 137.

Manual of Psychiatry. Paul E. Bowers, M.S., M.D., pp. 365. W. B. Saunders Company, Philadelphia and London.

Organotherapy in General Practice. G. W. Carnrick Company.

The Physiology of Mind. An interpretation based on biological, morphological, physical and chemical considerations. By Francis X. Dercum, M. D., Ph. D., Professor of Nervous and Mental Diseases in the Jefferson Medical College, Philadelphia. Second edition, reset. Pages, 287. W. B. Saunders Company, Philadelphia and London, 1925. Cloth, \$3.50, net.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

RECEIVED FOR REVIEW

The Technic of Local Anesthesia. By Arthur E. Hertzler, A. M., M. D., Ph. D., LL. D., F. A. C. S., Prof. of Surgery in the University of Kansas. Third edition, with 140 illustrations. Price \$5.50. C. V. Mosby Company, St. Louis, 1925.

On the Breast. By Duncan C. L. Fitzwilliams, C. M. G., M. D., Ch. M., F. R. C. S. Ed. and Eng., Surgeon in charge of out-patients and lecturer on operative surgery to St. Mary's Hospital; Surgeon to Paddington Green Children's Hospital and to Mount Vernon Hospital for Tuberculosis. Price \$10.00. C. V. Mosby Company, St. Louis, 1924.

A Textbook of Practical Therapeutics. With special reference to the application of remedial measures to disease and their employment upon a rational basis. By Hobart Amory Hare, B. Sc., M. D., LL. D., Prof. of Therapeutics, Materia Medica, and Diagnosis in the Jefferson Medical College of Philadelphia. Nineteenth Edition. Enlarged, thoroughly revised and largely rewritten. Illustrated with 144 engravings and 8 plates. Price \$7.00. Lea & Febiger, Philadelphia and New York, 1925.

Surgical Clinics of North America. Clinic of Frank H. Lahey, M. D., Boston. Volume IV, number VI, 166 pages with 43 illustrations, and complete index to volume IV. Paper, \$12.00; Cloth, \$16.00, net. W. B. Saunders Company, Philadelphia and London.

Principles of Surgery for Nurses. By M. S. Woolf, M. A., B. Sc., M. R. C. S., Instructor in Surgery, University of California Hospital, San Francisco. Illustrated, 350 pages. W. B. Saunders Company, Philadelphia and London, 1925. Price \$3.00.

Medical Clinics of North America. Volume VIII, Number IV, (Mayo Clinic Number, January, 1925). Octavo of 374 pages with 66 illustrations. Paper \$12.00; cloth \$16.00. W. B. Saunders Company, Philadelphia and London.

Report of Second International Congress of Military Medicine and Pharmacy, Rome, May-June, 1923. By William Seaman Bainbridge, Commander, Medical Corps, United States Naval Reserve Forces.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles by members of the medical profession throughout the world. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, with the collaboration of Chas. H. Mayo, M. D., Volume I, thirty-fifth series, 1925. J. B. Lippincott Company, Philadelphia and London.

Clinical Medicine for Nurses. By Paul H. Ringer, A. B., M. D., Chief of Medical Service of the Asheville Mission Hospital, Asheville, N. C.; on staff of Biltmore Hospital, Biltmore, N. C. Illustrated. Second revised edition. Price, \$2.50. F. A. Davis Company, Philadelphia, 1924.

A Laboratory Manual of Physiological Chemistry. By Elbert W. Rockwood, M. D., Ph. D., Prof. of Chemistry and Toxicology at University of Iowa; and Paul Reed Rockwood, M. D., Fellow in Medicine, Mayo Foundation. Fifth edition, revised and enlarged. Illustrated with four colored plates and forty-three text engravings. Price \$4.00 net. F. A. Davis Company, Philadelphia, 1924.

Pseudo-Appendicitis. A study of mechanical syndromes of the right lower quadrant simulating appendicitis. By Thierry De Martell, Chirurgien des Hopitaux de Paris and Edouard Antoine, Medecin des Hopitaux de Paris. Authorized translation from the French by James A. Evans, A. B., M. D., Formerly Assistant Radiologist, Hospital St. Antoine, Paris. Illustrated with forty-one engravings. Price \$3.00 net. F. A. Davis Company, Philadelphia, 1925.

Serum Diagnosis of Syphilis by Precipitation. By R. L. Kahn, Sc. D., Immunologist to the Bureau of Laboratories, Michigan Department of Health. Illustrated. Price \$3.00. Williams & Wilkins Company, Baltimore, 1925.



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From Infancy to Childhood. The child from two to six years. By Richard M. Smith, M.D., Asst. Prof. of Child Hygiene, Harvard University Associate Physician, Children's Hospital Visiting Physician, Infants' Hospital, Boston. The Atlantic Monthly Press, Boston.

REVIEWED

Child Health Library. Ten volumes. Robert K. Haas, Inc., New York.

This series of ten booklets by specialists in their fields, covers compactly and briefly, in an authentic manner all the main phases of child-health work. It consists of booklets 2½ x 3 inches, bound inexpensively in flexible leatherette of vest-pocket size for easy reference; each dealing with a special problem in child-health, supervision and care. They cover the following subjects:

Vol. I. Pre-natal Care of the Baby's Birth, by Harbeck Halsted, M.D., attending Obstetrician and Gynecologist Sloane Hospital for Women, New York, and instructor in these subjects at Columbia University.

This little volume covers briefly all the questions which might be put to the physician by a prospective mother in such comprehensive manner that its guidance offers great assistance to the mother and saving of time and trouble for her physician.

Vol. II. Babies, Their Feeding and Care, by Louis C. Schroeder, M.D., Assistant Professor of Diseases of Children, University of Cornell.

The care of the mother, the feeding regulations, milk formulae, weaning rules, mixed diet up to two years, bodily care, toilet, clothing, environmental conditions, and signs and symptoms of ailments met in these years are covered in this volume so simply as to make it of great value in the hands of the mother of average intelligence.

Vol. III. The Neglected Age—The Child from Two to Six, by Bernard S. Denzer, M.D., Adj. Attending Physician in Diseases of Children, Mt. Sinai Hospital, New York.

The dangers of the "pre-school age" are pointed out by Dr. Denzer and wholesome advice given as to prevention of diseases and their hygienic supervision.

Vol. IV. Dangers of the School Age, by Alice Asserman, M.D., Director of Children's Service, New York T. B. Assn.

Dr. Asserman treats this wide subject in a manner making easily available material in meeting the many pitfalls and dangers assailing the child while in school both from the standpoint of the parent and the teacher.

Vol. V. Communicable Diseases of Childhood, by Stafford McLean, M.D., Instructor in Diseases of Children, College of Physicians, New York.

Dr. McLean covers his subject in a brief and helpful manner so as to make a book readily accessible for parents and others to use in intelligent co-operation with physicians and other agencies in prevention of communicable diseases, the limiting of their spread and measures to follow to give the patient the best chance for recovery.

Vol. VI. Hygiene of the Mouth and Teeth, by Thaddeus P. Hyatt, M.D., Director Dental Department, Metropolitan Life Insurance Co.

The name of this volume covers its contents which give very concisely all the points necessary for the laity to know to prevent early decay of the teeth and their preservation and the responsibility which parents, teachers and public agencies must assume in meeting these problems in children under their care.

Vol. VII. What Children at Various Ages Should Eat, by Lucy H. Gillett, M. A., Director of Nutrition Bureau, New York, A. I. C. P.

Miss Gillett covers the subject as applied to various ages both from the standpoint of food supervision within the home and also the eating habits and the preparation of the foods needed.

Vol. VIII. How Children Ought to Grow, by Jno. C. Gebhart, Director of Social Welfare, New York, A. I. C. P.

The technical data of height, weight and age relations, factors influencing growth, special rules for the unusual or abnormal cases, etc., are ably treated by the author.

Vol. IX. Psychology of the Child, by David Mitchell, Ph. D., President, New York State Assoc. of Consulting Psychologists.

The relation of the psychology of the child and its mental and emotional response to its environment bears such a vital relation to his physical and moral well-being that this brief, sane discussion of the subject should be welcomed by all in care of growing children.

Vol. X. Educational Problems, by Davis Mitchell, Ph.D., President, New York State Assoc. of Consulting Psychologists.

This wide subject with its many relations to home, school, state and nation is cleverly treated by the author in weeding out of the mass of "educational experiments" usable material for guidance of teacher and parent.

This series, compact, readable, comprehensible, carefully indexed for easy reference and *cheap* should be welcomed by those having the welfare of children in their hands.—S. I. M.

Local Anesthesia Simplified. By John Jacob Posner, D.D.S., Chief of the Dental Department Harlem Dispensary, Visiting Dental Surgeon, St. Luke's Hospital, New York. Fifty-five illustrations. C. V. Mosby Company, St. Louis, 1924.

Dr. Posner deals with a vital subject with which our dentists have been grappling for many years, namely, dentistry without pain.

Aside from its excellent technique, Dr. Posner's book is a great contribution to the world of dentistry because it humanizes the dentist and his work.

We find in this book pictures illustrating the excellent methods of the local anesthesia.

The author has a clear and concise knowledge of asepsis, which is quite as necessary in Dental Surgery as in General Surgery. The reader can readily see how, why, and where the various injections as described are given.

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Dr. Posner advocates the use of platinum needles also ampules of the solutions to be used such as Novocain 2% combined with Ruiger's solution, thereby assuring absolute sterility. The use of novocain has been found to be very successful in establishing nerve block.

In summing up this book, I would say it was an advancement in the field of dentistry. The book is excellent because of the faultless technique of the subject discussed and should remove, to a great extent, the fear we all have of the dentist chair.

The Medical Sciences in the German Universities—A Study in the History of Civilization. Translated from the German of Theodor Billroth, Introduction by William H. Welch. The MacMillan Co., New York, 1924.

To anyone interested in the organization of teaching and research in medicine, this book is one of consuming interest. It is a masterful presentation of most interesting material by one of the great surgeons of the world. Although the original appeared fifty years ago, the questions which Billroth takes up are of just as much interest now as they were then, and in reading the book one completely loses sight of the fact that it is fifty years old.

The problem of teaching and research are perennial, the qualifications of a teacher and of a researcher in medicine apparently always remain the same. Billroth's keenness of insight into the problems and his breadth stand out brilliantly.

From the biographical standpoint, the book is full of interest and throws a great deal of light on the masters in the fields of medicine and the medical sciences in Germany and Austria during the last century.

The publishers have done a great service in rendering the material available in English. The translation is ably done and the book will be a genuine addition to any library.—A. S. L.

Operative Surgery. By Warren Stone Bickham, M.D., F.A.C.S., Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York, Former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5,400 pages with 6,378 illustrations, mostly original and separate Desk Index Volume. Volume VI, completing the set, contains 989 pages with 1,224 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription only. Index Volume Free.

This volume dealing with the operative technique involved in operations upon the colon, rectum and anus, the kidneys and supra-renals, the ureters, bladder and external male genitalea conforms to the high standard of excellency of the preceding volumes, offering a clear, comprehensive exposition of the subjects under discussion—with the whole profusely illustrated and detailed. It cannot fail to be most favorably received.—T. W. T.

The Surgical Clinics of North America. Portland-Seattle Number, October, 1924. Volume IV, Number V, 263 pages with 12 illustrations. Paper \$12.00; Cloth

\$16.00 net. W. B. Saunders Company, Philadelphia and London.

One is greatly impressed with the print, style, and simplicity of language employed throughout the monograph. The range of subjects is wide and well illustrated, and the reading is lucid and fascinating. Interest is refreshed by evidence of individual ingenuity. The consideration of the subject material is unusually well selected and rather broadly discussed for such a small volume. The book should be of considerable interest to the general surgeon, as the treatment suggested and carried out, represents in general the views now recognized. There is one statement, however, on page 137 (bottom), which in the light of modern teachings and experience is difficult to countenance. In the dissertation on the diagnosis of renal tuberculosis the writer states, "Continued search, however, is usually rewarded by finding the tubercle itself. A guinea pig inoculation is slow and inaccurate. Persistent staining for organisms is very much better." This to say the least is a ridiculous statement in the light of all the work that has been accomplished by bacteriologists in an effort to identify organisms from the morphological structure alone. We are constantly reminded of the extreme difficulty, more often complete failures, that follows from trying to recognize specific bacteria by their morphology, as well as staining property. The time has not yet come when we can discard the use of cultural characteristics, agglutination reaction, and animal inoculation, in the recognition of specific bacteria. To do so will rob a patient of the benefit of accurate diagnosis. Experience continues to demonstrate that guinea pig inoculation for the diagnosis of tuberculosis is still the most accurate method.

The aforementioned quotation does not enhance nor materially detract from the value of the book. It represents only an individual's blunder. As a whole the authors and publishers have succeeded in producing a book which fulfills its purpose. In ranks with the best editions of the Surgical Clinics of North America, and deserves a popular place in the surgeon's library.

—B. H. H.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1924. Cloth. Price, postpaid, \$1.00. Pp. 82. Chicago: American Medical Association, 1925.

This volume contains the reports of the Council on Pharmacy and Chemistry that have been adopted and authorized for publication during 1924. Some of these reports have appeared in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION. Others are now published for the first time.

The annual volumes of the "Council Reports" may be looked on as the companion volumes to New and Non-official Remedies. While the latter contains the medicinal preparations that are found acceptable, the reports contain the reasons why certain products are not acceptable. Thus the present volume contains reports on the following products which the Council denied admission to New and Nonofficial Remedies: Aolan; Aspatol; Atussin, Peptoproteasi, Paraganglina Vassale, Fosfo-

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The Treatment of Septicaemias and Intoxications in Infants and Children*

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The management and treatment of blood infection and toxemias has been more or less empirical, usually involving, if possible, eradication of the focus, and elimination of the toxemia by the usual routes, viz., skin, bowels and kidneys. We must admit that these measures have not been successful and what patients have recovered following these methods have done so due to their overcoming, themselves, the infection or the toxemia, as the case may be. During the past two or three years various dyes and bacteriacidal solutions (such as Mercurochrome) have been tried but with indifferent success.

There must be few, indeed, who would fail to acknowledge our present inability to determine the etiology of disease, but none who would fail to recognize the fact that the causative agent or agents are transferred to their ultimate sphere of activity through the blood which we know to be a complex nutritive medium, containing, besides the elements of nutrition and stimulators of growth, protective or anti-bodies and in addition, the little understood etiologic factors of disease. Death or recovery may take place through the complete or incomplete ascendancy of one of these over the other. Thus, one may readily assume that the tide may be favorably turned by supplying the host with an extra amount of complement or germ combative agents and at the same time removing an equal or nearly equal amount of septic or toxic blood as the case might be. In the majority of instances the toxemia arises from a source which cannot be attacked surgically (for example the toxemia of acute intestinal intoxication, of septic scarlet, or erysipelas, and of severe superficial burns).

The plan that has been adopted in the Children's Hospital at Toronto was developed and perfected by the late Dr. Bruce Robertson of the Surgical Staff. The operation is known as Ex-

sanguination-Transfusion (Bruce R.). This observer noted, in France in 1916, the remarkable recovery made by two soldiers from carbon monoxide poisoning treated by bleeding and then a simple transfusion. Robertson felt, following this procedure, that the removal of the altered blood played a large factor in the rapid cure. Following the war he conducted a series of animal experiments which produced most encouraging results. It was, however, soon noted that in order to effect satisfactory results, large quantities of blood should be removed before it was replaced with fresh blood. Needless to say only a certain amount of blood could be removed at once before signs of hemorrhage occurred, so, in order to still further empty the circulation at the same time that blood was removed, fresh material was injected simultaneously. In this manner, therefore, it is feasible to remove a large amount of septic or toxic blood without the patient exhibiting any serious signs of blood depletion.

As the experience of the author of this method increased he felt that the more complete the replacement of the patient's blood with fresh non-toxic material was effected, the more dramatic and permanent were the results. Since the author's original description of this method in 1921 there have been approximately 600 such operations for various conditions performed in our clinic.

TECHNIQUE

We feel that we cannot do better than to quote from Robertson's excellent description of his own method (*Arch. of Surgery*, July, 1924):

"We have made it a rule, before commencing the operation, to secure a sufficient number of suitable donors to provide considerably more blood for transfusion than the total quantity known to be contained in the patient's body. Unfortunately, the necessity of replacing, all or nearly all, of the patient's blood with blood transfused from donors places a definite limitation on the general application of the method. Obviously it is practically out

*Read before the Inter-State Post Graduate Assembly, Milwaukee, Wis., Oct. 27-31, 1924.

of the question to accomplish such results in adults. The method has been limited, therefore, with a few exceptions, to children, and usually to children under three or four years of age.

"The technic of the operation is as follows: Blood is withdrawn by puncture of the median vein of the donor or donors into 100 c.c. glass syringes, each of which contains 10 c.c. of freshly prepared 3.5 per cent sodium citrate solution. As each syringe is filled it is inverted several times to ensure the proper mixing of the contents, and then emptied into a basin. A quantity equal, at least, to the total circulation of the patient is thus obtained. In estimating the amount required we have been accustomed to consider that the quantity of blood in any patient's circulation is roughly 35 c.c. per pound of body weight. The desired amount having been withdrawn, it is laid aside until required at a later stage of the operation. Its temperature is maintained during this time by a water bath, at a temperature of 100 degrees F.

"The recipient is then prepared. The cannula for the transfusion is first tied into a suitable vein, such as the internal saphenous at the ankle, or the medium basilic at the elbow, and 10% glucose solution is slowly introduced to prevent clotting. The exsanguination cannula is then inserted (Fig. 1). In small infants, the

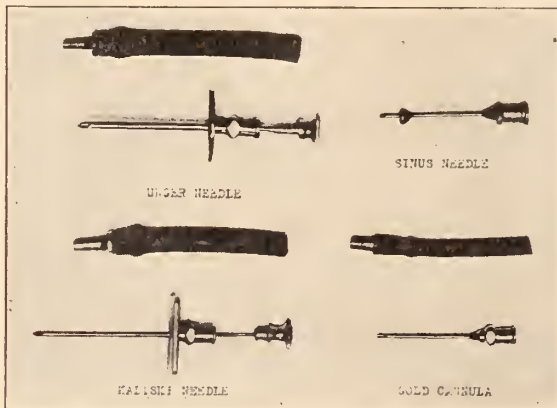


Fig. 1.

superior longitudinal sinus is made use of for the exsanguination (Fig. 2) but in children in whom the anterior fontanelle is closed the femoral vein provides a suitable substitute. The superficial veins are not satisfactory as they cannot be relied upon to yield a rapid and continuous flow of blood. When the femoral vein is used, a large cannula is introduced into it through the saphenous vein,



Fig. 2.

which can readily be picked up just before it perforates the cribiform fascia (Fig. 3). By introducing the cannula in this way, the continuity of the femoral vein is not disturbed, and the risk of injuring the circulation of the limb is avoided.

"Blood is now withdrawn from the patient until signs of exsanguination begin. The amount of blood withdrawn at this stage varies greatly, and depends entirely on the effect on the patient. We have found the amount withdrawn from small children to vary from 60 c.c. to 160 c.c. With the first sign of weakening pulse, one of the 100 c.c. syringes containing citrated blood from the donors is connected with the transfusion cannula, and the introduction of fresh blood is commenced. If it appears that the withdrawal of blood has approached too close to the

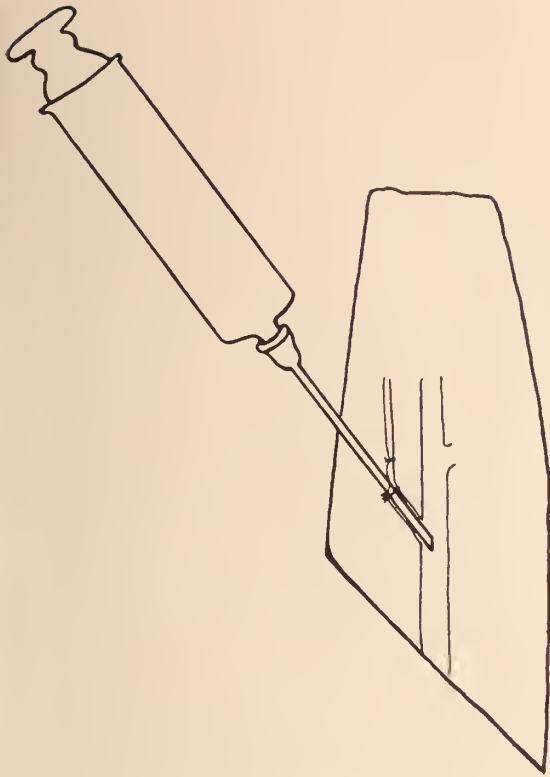


Fig. 3.

margin of safety, five to ten minims (0.3 to 0.6 c.c.) of a 1/1000 epinephrin solution are administered by means of a hypodermic needle thrust into the rubber tubing which connects the transfusion syringe with the cannula in the vein. After transfusion has begun, the withdrawal and the introduction of blood are carried on simultaneously at approximately the same rate until all the available blood has been transfused. As a rule, we have introduced rather more blood than was removed, the excess usually being from 100 to 150 c.c., but if, prior to operation, there were cyanosis and other signs of failing circulation, we have made it a practice to withdraw slightly more blood than the total amount injected."

The curative effect of this method of treatment in certain toxemias and septicemias in children has been amply demonstrated clinically and bacteriologically. The results may be considered to have been brought about in two ways (a) mechanically by removing a large amount of the toxin or bacteria as the case may be, and (b) serologically by supplying the complement and immune bodies normally present in adult blood. This operation has been performed chiefly in the following conditions: 1. Acute intestinal intoxi-

cation. 2. Erysipelas. 3. Septicemia. 4. Septic scarlet fever. 5. Resorcin poisoning. 6. Acidosis. 7. Toxemia of severe burns.

DISCUSSION AND RESULTS OBTAINED

1. *Acute Intestinal Intoxication.*

Active Causes. The primary cause of acute intestinal intoxication may be: (1) Production of some toxic substance from the food by decomposition; (2) improper foods; (3) infection of the intestinal wall with bacteria; or (4) abnormal absorption of catabolites from the bowel. Numerous bacteriological researches have failed to reveal a pathognomonic organism. Mellanby in 1915 suggested the possibility of an amine base, which could readily be formed from histidine, a non-toxic substance, found normally in the bowel. He produced comparable symptoms in animals by injecting the B-aminoazolyethylamine into their gastro-intestinal tract. From our experimental work we consider the cause of acute intestinal intoxication to be a circulating toxin, produced in the mucous membrane of the bowel. Chemically the substance resembles closely an amine base, and possibly is the normal toxic substance found by Starling in bowel mucous membrane. Further work is being done to determine whether the symptoms are due to an over production or increased absorption of this substance. Numerous organisms may play a secondary role in producing the poison by converting a harmless protein split product from an acid to a toxic basic substance.

Pathology. There are no characteristic pathological lesions. The commonest, and frequently the only, abnormality seen is a fatty liver. This change was observed in 75 per cent of our cases in the gross. Microscopically it is almost universally present and is lobular in type. The fatty changes were more marked in the very acute cases.

No pathognomonic changes were seen in the bowel. Cases having a history of previous gastro-intestinal upsets presented a catarrhal enteritis in some instances. Circulatory changes, varying from congestion and petechial hemorrhages, to in two cases, actual ulceration were seen. These latter changes are those seen in any intoxication caused by protein, or their split products.

In addition, however, to the above changes there is the condition of dehydration which means diminished blood flow and a blood concentration. This condition of anhydremia naturally encour-

ages or augments the effect of the toxic substances. A means of directly combating an unknown toxin is difficult. The presence of a circulating toxin, which is intimately associated with the blood cells suggests, however, the removal of the medium which contains this toxic substance and the injection of fresh blood to still further combat the remaining toxemia. This procedure was therefore adopted as an improved method in dealing with intoxication in our clinic three years ago and as a result our mortality has been most favorably affected as the following figures show. In addition

Fig. 4.

ACUTE INTESTINAL INTOXICATION

No. of Cases	105	{ Male.....63
		{ Female....42
Cured	58	
Died	47	
Mortality	44.7%	

With ordinary measures of treatment mortality was 84% in a similar series.

Age Group	Age Incidence		Died	Mortality
	Cases	Cured		
Under 1 mo.....	2	1	1	50.0%
1-2 mos.....	55	27	28	50.9%
2-6 mos.....	32	20	12	37.5%
6-12 mos.....	11	7	4	36.3%
12-18 mos.....	1	1	..	.....
18-24 mos.....	4	2	2	50.0%
Over 2 years.....	105	58	47	44.7%

A reduction of 40% over the usual methods employed.

tion to this treatment the free exhibition of fluids in the form of 10-20 per cent glucose by nasal drip, subcutaneously and frequently into the blood stream must not be neglected.

2. *Erysipelas.*

This infection in the new born, i. e., up to one month, is accompanied by practically a 100% mortality, which is probably due to the almost

complete lack of immunity in young infants, to the streptococcus hemolyticus which may be recovered from the blood stream in most cases of this disease. As the infant increases in age this ability to produce immunity to this organism is increased so that the mortality with the ordinary methods of treatment in the same infection from one month to one year is reduced to 50%. As a matter of interest we noted the general mortality of 52 consecutive cases that were not transfused, to be 28.8% (including the new born) and observed that these corresponded with a mortality of 28.3% of 53 cases of a similar series reported by Knox of Baltimore. Comparing these results with Robertson's method of exsanguination, as recorded in the table, leaves little doubt in one's mind regarding its efficacy in this type of infection. It should be particularly noted that many of these new born infants that recovered had a hemolytic streptococcus in the blood stream.

Fig. 5.

ERYSIPELAS

Mortality in Age Groups Following Treatment by Exsanguination—Transfusion Hospital for Sick Children, Toronto

Age Group	Cases	Cured	Died	Mortality
Under 1 mo.....	18	8	10	55.5%
1-6 mos.....	32	27	5	15.6%
6-12 mos.....	17	16	1	5.8%
1-2 yrs.....	8	8	..	.....
2-6 yrs.....	5	5	..	.....
Total	80	64	16	20.0%

A reduction in the mortality of the new born—45%

3. *Septicemia.*

Generalized blood infections in children are fraught with almost 100% mortality and while

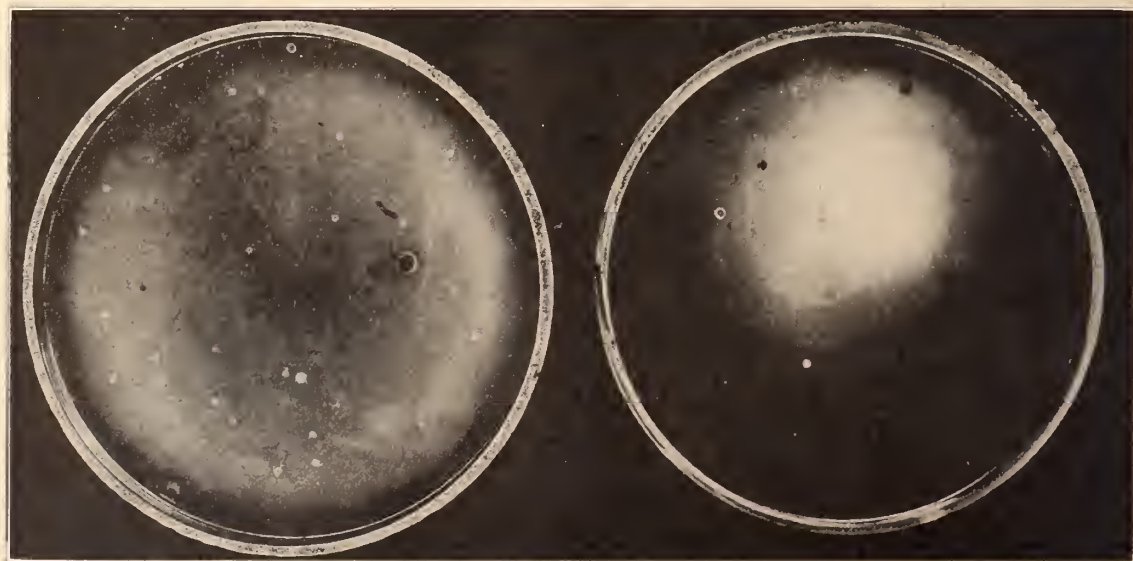


Fig. 6.

Robertson's method had not effected the striking results observed in other conditions we feel that it has on numerous occasions been effectual in bringing about a cure. Conditions where there exists an ineradicable focus of infection which supplies a continual stream of organisms such as in osteomyelitis and septic throats especially, do not offer the same degree of hope for recovery. In contrast to these types of cases one sees excellent results following umbilical infection in the new born, or sepsis neonatorum. In a few instances where a bacterial count in the blood has been made at the beginning of the operation and immediately after there has been a very striking reduction as is shown in the plates. To still further augment the value of the exsanguination transfusion we recommend at the conclusion of the injection a full dose of mercurochrome which procedure at least has a firm theoretical basis. As yet we have not had sufficient experience with this latter procedure to make a definite statement as to the results obtained. The few remarks on the following two cases will serve to illustrate in a very striking manner the recovery of apparently two hopeless cases.

Case 1. S. H., age 3 years. Severe chicken pox followed by infection of several of the pox marks on the abdomen and thigh. The temperature rapidly assumed the septic type and on the second day of the illness there existed a profound toxemia accompanied by almost continuous delirium. The blood culture was positive with a profuse growth of hemolytic streptococci. Three exsanguination transfusions were performed at 1 or 2 day intervals employing between 2000 to 2200 c.c. on each occasion. The child made a prompt and complete recovery. As further evidence of the severity of the infection was the fact that the slough extended down to the muscles and fasciae. It is a matter of interest to note that 111 individuals were grouped (Group III, Jansky) in order to supply sufficient blood of the correct group for this patient.

Case 2. B. E., age 2 weeks. Premature infant weighing 3 lbs. Umbilical infection with a hemolytic streptococcus in the blood. Septic temperature. Three exsanguinations employing approximately 300 c.c. at each operation. Marked reduction and finally elimination of organisms from the blood as shown in the plates. This child is now two years old and quite normal. This is

rather a remarkable case due to the fact that it was (a) a premature infant having low resistance, and (b) the small size, i. e., 3 lbs.

4. *Septic Scarlet Fever.*

With the advent of Dick's and Dochez's new work in scarlet fever it scarcely appears necessary to suggest other forms of management in cases of malignant scarlet. Until, however, the anti-scarlet fever serum becomes universally available one must be prepared to meet the emergencies that occasionally arise in this treacherous disease. Experimental work has demonstrated that scarlet fever is a local infection of the throat produced by a toxin producing streptococcus with rapid absorption of the poison from the point of entry. The mortality in septic scarlet is high and treatment instituted must be prompt if a successful issue is to be fulfilled. We have had four cases of malignant scarlet exsanguinated with complete recovery in all. The results thus speak for themselves. The following case report illustrates in a very striking manner the situation to be met.

Case 1. A. F. Private patient of the author's and cited by B. R. in Arch. of Surgery, July, 1924, Vol. 9, p. 13.

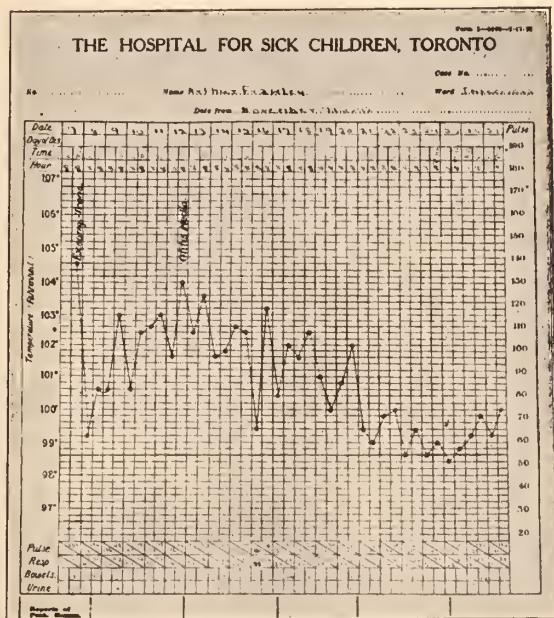


Fig. 7.

Fig. 7. Temperature chart of a case of septic scarlet fever. Treated by exsanguination-transfusion. Recovery. A. F., aged 3 years, twenty-four hours before admission became suddenly ill

with fever, delirium, vomiting and cyanosis. On admission, the patient was delirious, the temperature was 104 degrees, the palate was intensely congested with punctate hemorrhage scattered over it, the tonsils were much swollen, the tongue coated showing definite small scattered pink papules, with slight erythema about the axillae, while the cervical glands were much enlarged. Tentative diagnosis: acute septic scarlet fever (this was confirmed at a later date by the appearance of desquamation). Exsanguinated 500 c.c., transfused 625 c.c., on admission. Rapid fall in temperature and improvement in general condition followed. The temperature subsequently rose and the patient ran through the ordinary course of scarlet fever complicated by otitis media. In this case, the operation apparently relieved the patient of the toxemia which overwhelmed him at the onset of the disease. The blood culture was negative. Recovery followed.

6. *Drug Poisoning.*

Preparations containing resorcin and tar are very frequently employed in the treatment of infantile eczema with most gratifying results but both of these drugs are not free of toxic substances and consequently are not without danger in their employment. Both belong to the phenolic group of substances and are closely related to carbolic acid. Their action is somewhat similar to that of carbolic but less irritant and poisonous. Members of this group when absorbed by the body are conjugated, largely in the liver, with sulphuric or glucuronic acid to form non-toxic esters which are then excreted by the kidneys. Their mode of action may be considered from three aspects.

(1) A very rapid absorption from the skin of a large dose of the drug.

(2) A moderate absorption with failure to be converted into non-toxic substances.

(3) Drug idiosyncrasy.

It is well known that patients suffering from infantile eczema occasionally collapse and die; so far no adequate reason has been advanced. The possibility of drug absorption must be considered. Two instances of drug poisoning in eczema have been reported from our clinic by Tisdall and Graham; both of these infants recovered following exsanguination transfusion. The symptoms in these two cases appeared in a few hours after the application of 4% resorcin ointment to a raw surface, consisted of an ashen grey color promptly

followed by weak pulse and collapse. In each instance prompt recovery followed the removal of the toxic blood with injection of fresh non-toxic adult blood. Carboluria was present in each case. The application of the Robertson treatment to these two cases naturally suggests its use in all cases of drug poisoning where alterations in the blood and liver occur following absorption.

7. *Toxemia of Severe Burns.*

It was the high mortality in this condition that primarily led Robertson to investigate the cause of burn toxemia and if possible to find suitable treatment. Deaths from burns in children result from two causes (a) primary shock, which is comparable to ordinary traumatic shock and (b) toxic shock which is the result of absorption of certain toxins produced in the burned area. In primary shock little can be done to relieve the condition while a great reduction in the mortality of toxic shock has resulted following the observations made by Robertson.

In a considerable number of cases there is only mild primary shock and then follows an interval in which the patient appears to be in good condition, in fact, this apparent good condition is frequently out of all proportion to the extent of the burn. Usually at the conclusion of 24 to 48 hours the temperature rises and symptoms of toxemia develop. The child becomes drowsy, the circulation depressed and the pulse rapid. In the cases that go on to recovery both the temperature and toxemia begin to subside about the fifth day, after which the problem is that of local treatment of the burned area. In the severe cases both the temperature (106) and toxemia rapidly increase and vomiting supervenes. The pulse becomes more rapid and weak and the patient takes on a dusky hue, an indication of capillary stases. The final stage is convulsions, after one or two of which the patient dies.

From a critical study of many burned cases it was found that there was an increase of non-protein nitrogen in the blood which is probably due to the tissue destruction, while from a purely clinical aspect Robertson concluded that the burned tissues were responsible for the toxin which is taken up by the blood. The appearance of these symptoms of toxemia 24-36 hours following the burn probably indicate that the damaged tissue must be in contact with living tissue before a toxic substance can be manufactured.

The nature of the toxin is not definitely known but from the clinical symptom it appears closely allied to the toxins produced in secondary wound shock and in intussusception (Robertson). It differs, however, from these toxins in that it causes convulsions. From experimental work conducted by Gladys Boyd in our laboratories it was found that there is a substance produced in burned tissues (in larger quantities in extensive skin burns than in those of other tissues) which circulates in the blood, either in, or closely absorbed to, the red blood cells and which causes the symptoms of toxic shock and in some cases death. The toxic material is produced in increasing amounts following the burning of the tissue until from 24-26 hours after the injury. It is produced only as a result of burning living tissues. The toxin is most highly concentrated in solutions of corpuscles suitably treated and to a lesser extent is present in the blood serum. Boyd's further work showed that this toxin consists of primary and secondary proteoses and like snake venom, it is made up of two portions, a necrotoxic and neurotoxic. The former is not destroyed by heat and is diffusible; the latter is thermolabile and colloidal. There was no evidence of anti-toxin production in the

blood although other observers have reported having observed some anti-body production.

With this short discussion of burn toxemia one may readily realize the obstacle to encounter in dealing with this condition. From the hospital records we noted no recoveries in any child following a convulsion under the ordinary methods of treatment, while with exsanguination transfusion the general mortality has been reduced to 45%.

Fig. 8.

BURNS				
No. of Cases.....	53			
Cured	29			
Died	24			
Mortality	45.2%			
Age Group	Cases	Cured	Died	Mortality
Under 6 mos.....	1	..	1	} 25.0%
6-12 mos.....	3	3	0	
12-18 mos.....	9	6	3	
18-24 mos.....	14	6	8	} 47.8%
2-4 yrs.....	17	12	5	
4-6 yrs.....	4	2	2	} 29.0%
Over 6 yrs.....	5	0	5	
	53	29	24	45.2%

A reduction in mortality of 55%

Fig. 9 illustrates the progress in a typical case. Temperature chart and drawing of a severe scald with intense toxemia, treated by exsanguination transfusion which was followed by recovery. P. K., aged 13 months, was admitted two hours after a severe first, second and third degree scald of the extent indicated in the diagram. A severe toxemia

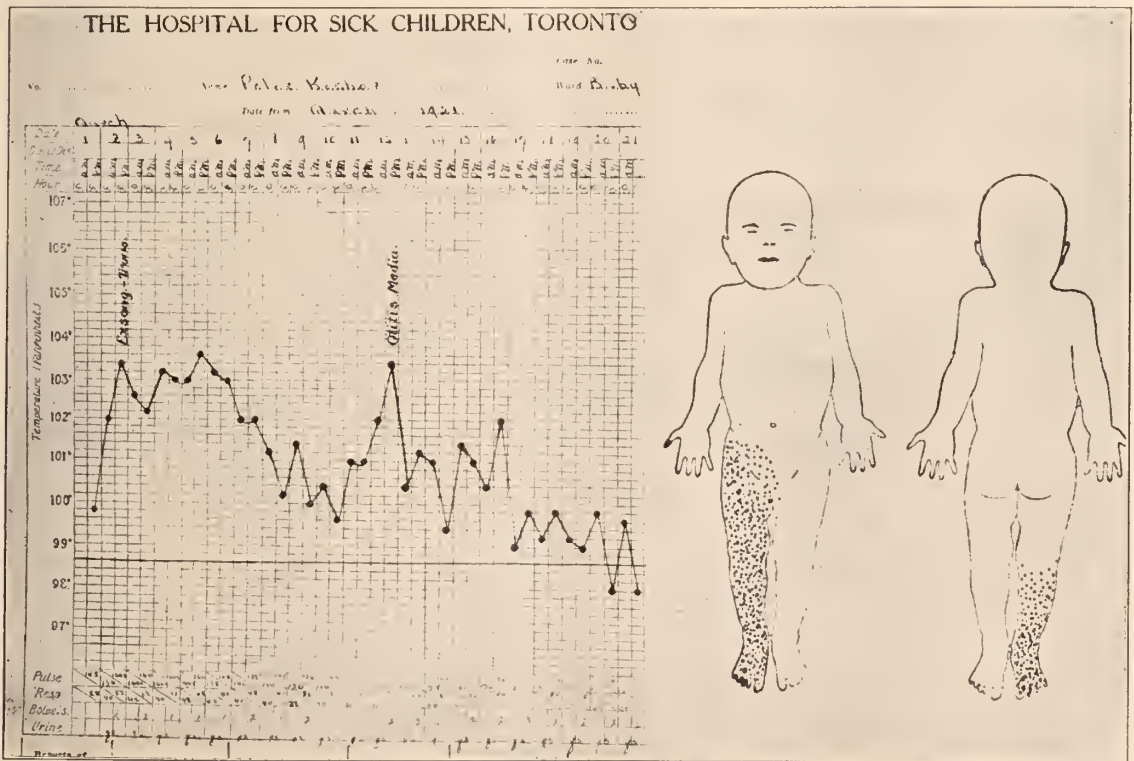


Fig. 9.

developed twelve hours after admission, and the child had several severe convulsions. The pulse rose to 160 and became very weak. The child was drowsy, toxic and cyanosed. Exsanguinated 300 c.c. and transfused 400 c.c. twenty-four hours after admission. One convulsion following transfusion. There was steady improvement following the transfusion, interrupted only by an elevation of temperature due to otitis media.

Miscellaneous. The method of exsanguination has been used in other conditions not previously stated in which there appeared to exist a form of unknown toxemia and in which all previous methods of treatment were unsuccessful. Instances of improvement and cure were noted in cases of severe acidosis of unknown etiology, primary peritonitis, infectious diarrhoea in which there is always an accompanying toxemia, and diabetic coma, while no apparent benefit was noted in

cases of uremia, toxemia of intussusception, and general peritonitis.

REMARKS

1. The operation to be successful should only be performed by the most skilled surgeon, the procedure in the hands of the unskilled is not without danger.

2. The most striking results are obtained in—
(1) Burn toxemia. A reduction of 55% in the mortality.

(2) Erysipelas of the new born. A reduction of 45% in the mortality.

(3) Acute intestinal intoxication. A reduction of 40% in the mortality.

(4) Septicemia. (To a lesser extent but worthy of trial.)

3. Any procedure which effects a considerable reduction in the mortality in certain conditions is worthy of trial.

Chronic Cervicitis and Endocervicitis*

BY CARL HENRY DAVIS, M. D., F. A. C. S.,
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Endocervicitis as a clinical entity was not recognized until bacteriological studies demonstrated that the endometrium of the uterus is usually free from bacteria. Winter, in 1888, made the first contribution, and seven years later Stroganoff and Menge, working independently, demonstrated that bacteria are not normally found above the external os. Curtis, in 1918, confirmed Winter's observations regarding the endometrium and definitely established the susceptibility of the cervical glands to chronic infection.

Chronic endocervicitis is always due to the presence of bacteria even though trauma, either mechanical or chemical, has acted as a predisposing cause. The trauma may have resulted in one or more of many ways, such as, lacerations from childbirth, irritation of a stem pessary, the use of a wish-bone pessary as a contraceptive, dilatation and curettage, masturbation, attempts at abortion, intracervical cauterization in the treatment of gonorrhoea, strong chemicals in douches, etc. Kept free from bacteria the trauma would heal rapidly in most cases, but the cervical mucosa with its racemose glands once invaded

tends to harbor the bacteria and there results a chronic inflammation, involving first the glands and eventually the deeper structures making in most cases a chronic cervicitis as well as endocervicitis.

Endocervicitis, judging from its frequent occurrence in otherwise normal puerperal patients, is evidently a very common condition. Its importance from the medical point of view depends on the virulence of the invading organisms and the associated pathology as well as the symptoms produced.

An annoying leukorrhoea is the symptom which most commonly causes a woman to consult a physician but the history usually brings out one or more of the following: dysmenorrhoea, sterility, dyspareunia, pelvic pain, backache, menorrhagia or metrorrhagia, nervousness and debility. During the speculum examination, which should always be made as an essential part of a pelvic examination, endocervicitis with some degree of erosion is frequently found in patients who report little trouble from leukorrhoea. This is quite common in women who have remained sterile for several years and the endocervicitis must be treated in attempts to relieve the sterility. Dyspareunia results from the tenderness due to

*Read before 78th Annual Meeting, State Medical Society of Wisconsin, Green Bay, August, 1924.

the secondary inflammation in the tissues along the lymphatics which drain from the cervix. In subacute cases there is usually some thickening and tenderness of the utero-sacral ligaments, and frequently there is a parisalpingitis and perimetritis. Too active treatment during the acute stage of endocervicitis frequently results in acute pelvic involvement. The patient often tries to treat herself with frequent douches and may not consult the physician until the pelvic structures are seriously involved.

Differential diagnosis between early carcinoma of the cervix and chronic endocervicitis with erosion may be impossible in the examining room. A microscopic examination of the involved tissue is indicated in all doubtful cases. Tissue may be removed with a nasal or tonsil punch and the area immediately cauterized with a nasal cautery. The possibility of syphilis must be kept in mind. The lesions are somewhat different from those of endocervicitis but it is probable that they are rarely recognized as such. A dark field examination or biopsy should be made when in doubt. Syphilitic lesions heal rapidly with anti-syphilitic treatment. Within the year I failed to diagnose an early carcinoma developing in an old chronic endocervicitis, and might have missed a chancre had not the history suggested such a lesion.

That cancer may develop more readily in the chronically diseased cervix is quite generally believed even though the factors which cause the malignant change are not as yet understood.

Chronic endocervicitis may cause sterility in a number of ways. The mucus plug may act as a mechanical barrier to the spermatozoa or its abnormal reaction may kill them. The secondary parisalpingitis may close the tubes, or in case of fertilization lead to a tubal pregnancy by preventing passage of the ovum into the uterus.

Since the work of Billings and Rosenow demonstrating the dangers from chronic foci of infection, the need of eliminating chronic infection from the cervix is becoming more generally appreciated. Laura Moench, working in Rosenow's laboratory at the Mayo clinic, has demonstrated that organisms grown from the chronically infected cervical glands of patients suffering from arthritis will produce joint lesions in rabbits. Culturally these organisms are identical with the anaerobic streptococci commonly found in other foci of infection in patients suffering with chronic arthritis. Her

results from bacteriological studies of endocervicitis again suggests Sturmdorf's likening of the cervix to the tonsil and definitely establishes it as one of the important locations for foci of chronic infection.

The recognition that chronic endocervicitis is a menace to the future health of the patient has led to renewed efforts to secure an effective treatment. Thus far very little has been accomplished in the way of prophylactic treatment. With the exception of infections due to the gonococcus and possibly those resulting from attempted abortion it is probable that most endocervicitis develops insidiously without an acute stage. Never-the-less it must always be remembered that the types of treatment which are most effective in eliminating a chronic endocervicitis may result in serious complications if used during the acute or subacute stage.

Local applications with phenol, tincture of iodine, silver nitrate, or zinc sulphate have undoubtedly been useful in certain cases when combined with ichthyol-glycerine tampons and douches, but the results have more often been unsatisfactory. A high amputation of the cervix removes the diseased tissue but this operation is to be avoided if possible during the child bearing period. Low amputation of the cervix and trachelorrhaphy are both useful in cases with ectropion following lacerations of the cervix during childbirth, yet the end results are often unsatisfactory and additional treatment may be required.

Sturmdorf in perfecting the conical excision of the cervical glands made a real contribution to the surgery of the cervix. His operation does not destroy the muscular portion of the cervix and therefore leaves a fair protection to the cavity of the uterus. Technically it is more difficult than an amputation but the end results are superior. Matthews has given an excellent illustrated description of this operation and a summary of the end results obtained at the Long Island College Hospital. A follow up of 200 patients treated from six months to three years prior to the study showed 128 or 64 per cent were cured; 56 or 28 per cent were improved; and 16 or 8 per cent were unimproved. Matthews says that these results compare favorably with Leonard's report of amputation of the cervix in 109 cases with marked leukorrhoea from Kelly's clinic at the Johns Hop-

kins Hospital in which 62.5 per cent were cured, 30 per cent were improved, and 7.5 per cent were not improved.

Curtis has treated chronic endocervicitis with small doses of radium placed in the cervical canal. He reports that the immediate result of the radium treatment is increased discharge which persists for many weeks. This stage is often followed by a stationary period of one or two months. During this time the cervix should be dilated occasionally at the office to prevent stenosis. Gradual improvement is the rule but a considerable number may require a second treatment after a period of several months. Of 104 cases followed for a sufficient length of time to determine the result of treatment, 90 have recovered, 7 are improved and 7 have not been benefited. Curtis warns that one of the chief difficulties in treating this affection is that the patient is often subjected to further exposure to disease or undergoes sex trauma during the period of convalescence.

The observation of healing after extensive cauterization of the cancerous cervix with the Paquelin cautery suggested to Hunner the use of the cautery for cervical erosions and endocervicitis. The perfection of the electric cautery has made this method of treatment practical and the results more satisfactory.

Dickinson in 1921 recommended the use of the nasal cautery tip for the treatment of the following conditions involving the cervix:

"1. Rough and extensive granulations, with erosions.

"2. The cysts, superficial or deep (these recur sometimes after repairs).

"3. Voluminous, adhesive mucus catarrh of the canal.

"4. Gonorrhoeal free secretions, with thickened lining.

"5. Between-birth erosion with laceration (recurring with each labor if sewed in the interum).

"6. Patients whose physical condition precludes, or whose circumstances postpone, operation.

"7. Marked endocervicitis in virgins (because the visits are few)."

Prior to Dickenson's report my use of the cautery had been limited to hospital patients under anesthesia. But appreciating the limited usefulness of local applications, tampons and douches I

installed a cautery in the office and began its use on some of the cervical conditions which had not responded to local treatments. The early results were not entirely satisfactory due largely to insufficient cauterization. However, with a better transformer and a more perfect technic it is now possible to cauterize a cervix at the office which I would have thought formerly impossible without an anesthetic. Cauterization causes very slight pain. Most patients are more frightened than hurt and for this reason it is important to eliminate the noise of the rotary transformer by placing it in another room.

The technic used in our office is as follows: After inserting a suitable bivalve speculum the mucus discharge is thoroughly removed with cotton balls. A suitable nasal cautery tip is then placed firmly against the tissue to be destroyed and the current turned on. As a sufficient depth is reached the tip is gradually moved so as to make a line through the diseased tissue. If at any time the patient complains of pain the contact button is immediately released and the current not applied again until she is comfortable. This process is repeated until a sufficient number of cautery lines have been made. Cysts are destroyed in a similar manner after puncturing with the heated tip. An effort is always made to reach the depths of the glands so as to destroy them effectively.

Experience with the use of the cautery has demonstrated that with it cervical conditions which respond slowly if at all to local applications, tampons and douches, may be completely healed in about six weeks. If the first application is deep enough a second treatment is rarely required. The patient should keep herself clean by external washing but douches are of questionable value. A pad should be worn until the discharge lessens and the patient is told that this will take about two weeks. She should also be warned that the next period may be quite profuse. One patient cauterized for an old cervicitis and endocervicitis had to be packed owing to a very profuse flow which frightened her. Several others had to remain in bed for one or more days owing to the flow.

Our satisfaction with cautery treatment is such that we are now using it on cases which formerly would have been subjected to surgery of the cervix. During the first seven months of this year my associate, Dr. Cron, and I have used the cautery on the

cervix of 46 patients and 35 of these were treated entirely at the office.

Medical diathermy as suggested by Corbus may be effective in killing the gonococcus but it has not been tried in other infections.

Mercurochrome in 3 to 5 per cent solution has been found a very useful germicide for the treatment of acute and subacute conditions and as an adjunct to the cautery in chronic endocervicitis. It is used as a disinfectant prior to vaginal operations.

Women approaching or past the menopause are more liable to cervical cancer and radical treatment may be indicated. Total hysterectomy sometimes is a conservative operation provided the patient is a good surgical risk.

SUMMARY

1. Chronic endocervicitis is a common disease, usually neglected, and frequently responsible for other pelvic disease such as pari-salpingitis and perimetritis.

2. It increases the possibility of cervical cancer.

3. It is directly or indirectly responsible for much of the sterility in women.

4. Chronic endocervicitis must be considered in treating arthritis in women. Once infected the racemose glands of the cervix are prone to harbor the organisms for an indefinite period.

5. Chronic endocervicitis due to a virulent organism is the probable cause of certain cases of puerperal sepsis, and post-operative peritonitis.

6. Every pelvic examination should include an inspection of the cervix. A diseased condition of the cervix should be diagnosed and treated.

7. The types of treatment which are effective for chronic endocervicitis may cause serious complications if applied during the acute or subacute stage of the infection.

8. The type of treatment must be varied according to the extent of the lesion, the age of the patient, the nature of the infection, and the associated pathology. In most cases the infected focus must be surgically removed or destroyed by the use of radium or cautery. It is believed that the electric cautery treatment is the method of choice in most cases which have no other indication for surgery. It is our choice of methods applicable in the office.

Modern Aids to Labor*

BY W. B. HENDRY,

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In discussing the subject of gestation teachers throughout the world are accustomed to consider the pregnant state as a normal physiological condition, and practitioners generally have at all times been in the habit of telling the expectant mother that hers is a perfectly normal case and that everything will be all right. Reproduction is of course a physiological function, but some obstetricians in their pessimistic moments are tempted to look upon pregnancy as a disease, pandemic in its distribution, running a self-limited course of varying degrees of severity and terminating at the end of nine months by crisis.

During the past year a series of observations made in the metabolic ward of the Burnside Lying-in Hospital might with some stretch of the imagination tend to lend a slight degree of support to the latter view. Harding and VanWyck made

a chemical analysis of the blood of a number of healthy pregnant women, carrying their observations through from the earliest months of pregnancy up to term, during labor and through the puerperium and have found that without exception there was a slight but gradual increase in the accumulation of waste products in the blood from conception to the termination of labor, with a sudden return to normal during the puerperium. These observations go to show that pregnancy and labor while being normal physiological processes cause an interference with the metabolic process which at term and during labor may at times approach the point of impairment of the kidney function.

While the vast majority of expectant mothers have not, until recently, paid much attention to the pitfalls and dangers which may be met with during the course of pregnancy, they have long been alive to the real and imminent danger of

*Read before the Inter-State Post Graduate Assembly, Milwaukee, Wis., Oct. 27-31, 1924.

labor, and while they may not have seen fit to consult a doctor earlier in the pregnancy, they have not failed to recognize the necessity of his presence at the crisis.

Of late years, however, the value of pre-natal care has been proven time and again. Not only has it made clear that the toxemias of pregnancy are to a great extent preventable, but it has also given to the observant attendant a knowledge of the size of the pelvis and of the nature of the labor to be expected, besides forewarning him of such difficulties and dangers as may arise. For these reasons we must consider pre-natal care our most valuable aid to labor.

Labor itself is rarely painless. In twenty years of practice I have had only two such cases, and the experience of other practitioners is similar to mine. From the beginning of time the parturient has undergone a varying degree of suffering from slight discomfort to extreme torture, and humane consideration has demanded for her a degree of relief which is consistent with safety to herself and without danger to the child. Many devices have been employed to secure this relief, some by lessening pain, others by shortening labor, and in this paper I propose to make a few observations on the results of my own experience with some of the methods advocated by different enthusiasts.

The introduction of chloroform and ether into obstetric practice was of inestimable value and these anaesthetics have stood the test of time. They have their disadvantages, however, owing to the fact that while they relieve pain, they also diminish contractions, prolong labor, prepare the way for post-partum hemorrhage and are not without danger to the child when used for any length of time. Consequently of late years obstetricians have been looking around for some safer means of relieving pain, and with the introduction of nitrous-oxide and oxygen as an efficient anaesthetic, they thought that they had reached the ideal. This combination, administered during contractions, relieves their pain without diminishing their strength and can be carried on almost indefinitely, but the expense of the gas itself together with the cumbersome apparatus, and the necessity of a trained anaesthetist to administer it, put it beyond the reach of all but hospital patients.

The discovery of the amnesic effect of morphine-hyoscine narcosis appeared to solve the difficulty and for a time the so-called "Twilight Sleep" was

universally tried. In 1905 we experimented with this method at the Burnside Lying-in hospital for a period of 2 months, but a series of blue babies in rapid succession led us to discard it as a routine treatment, and we did not take it up again until 1920 when it was used with success in 45 cases. In this series all the babies cried lustily at birth. The labor was in no case prolonged and the amnesia was complete in every case but one. It is, however, quite true that in each of these cases a small amount of C & E mixture was administered during the perineal stage.

The lesson learned from the poor result in 1905 was that the depressing action of the morphine on the respiratory center of the foetus made the administration of the drug inadvisable in the second stage, as its effects had not worn off by the time this stage was complete, and resulted in an asphyxiated child. Accordingly it is our custom now, when this method of treatment is advisable, to give only an initial dose of morphine, grs. 1/6, which is administered in the first stage accompanied by 1/200 gr. of hyoscine to be repeated as necessary in order to maintain the required degree of amnesia. Here again, this method has its disadvantages. It requires the attention of a specially trained nurse, or the presence of the doctor for its administration, as well as suitable surroundings and the co-operation of the family. The room must be darkened, isolated and quiet, while the family must be informed as to the possible effect of the hyoscine on the patient, as in many instances while the effect of the amnesia may be produced there will be a lack of control of the emotions on the part of the patient who may appear to be suffering more than ever during pains. It is hardly, therefore, a suitable method for use in the home, although it is of value at times particularly with a moderate degree of pelvic contraction, during a prolonged first stage, due to a slowly dilating cervix, or with a very nervous patient. Another method of anaesthesia lately introduced by Gwathmey and his associates is that of administering ether by rectum. His method is to give a hypodermic injection of 1/6 grs. morphine dissolved in 2 c.c. of 50% solution of chemically pure magnesium sulphate at a time when the pains are coming every two or three minutes, the cervix is being taken up and the os dilated two or three fingers. This is followed in 15 minutes by the injection, by means of a syringe on the end of

a medium sized catheter, of a mixture of 10 grs. quinine hydrobromide, two drams of alcohol and two and a half ounces of ether in enough olive oil to make four ounces. Care must be taken to have the bowel thoroughly cleansed by enemas before the instillation is made and the whole amount should take from 5 to 10 minutes to inject, pressure being made on the perineum during pains. The effect of this treatment is to cause the patient to become drowsy within three or four minutes and continue so for three or four hours. If after that she becomes restless a hypodermic of 2 c.c. of 50% solution of chemically pure magnesium sulphate is given and may be repeated a second time if necessary. The optimism of Gwathney led me to try his method as outlined in his first report, in 42 cases at the Burnside. In 40 of these the recollection of the labor was indistinct and its length apparently shortened while in two the results were entirely unsatisfactory. There were nausea and vomiting in 30 cases, and in 22 inhalations of C. & E. were required towards the end of the second stage. In this series two of the babies were still-born and the method must take the responsibility for this unfortunate result. Here again while the method of administration was simple the patient required special attention on the part of the obstetrician and the nurse. In more than half the cases there were nausea and vomiting and the method was not without danger to the child. It is a method, however, which is of value in prolonged labor in the latter part of the first stage, and it produces analgesia and an amnesia which generally lasts through the stage of nausea and vomiting.

Another aid to labor, which appears to have more advantages and fewer disadvantages than the other narcotics used in obstetrics, is heroin. It is now being used in the Burnside with uniformly satisfactory results, although the administration of C. & E. is necessary during the perineal stage. It may be given at any time during the first stage in 1/12 gr. doses, and may be repeated as often as is necessary to control the pains. It does not seem to have any effect on the strength of the contractions. Labor is not prolonged and the mother is not exhausted at its termination, while it appears to have no ill effect on the child, although in 2 cases reported to me the foetal heart rate was slowed to 60 beats per second after its administration and in each of these cases artificial means

were necessary to restore the baby. In one other case when the drug was administered during the latter part of the second stage, an asphyxiated baby was born which required half an hour to resuscitate.

Spinal anaesthesia is another method which has been used advantageously, particularly in the west. My own experience, however, with the use of stovaine in abdominal surgery was so disappointing in that it had to be supplemented by a general anaesthetic that I have not yet felt justified in using it in obstetrics. Nor have I lost sight of the fact that the late Sir Victor Horsley when he was collecting statistics on the Continent concerning the use of spinal anaesthesia, met with several instances of neuromata in the spinal canal following its administration.

So far I have considered only certain aids to labor which deal with the relief of pain. Besides these, there are medicinal, mechanical, and surgical methods which are for the purpose of shortening labor.

Of medicinal aids, pituitrin is one of the most impressive drugs which have come into use during the last 15 years. It has been both praised and condemned in high places. In my experience, however, it has proved most valuable. But there are certain facts about it which it is well to remember. First of all, we know that it causes intermittent contractions of smooth muscle fibres. We know, too, that patients react differently to its administration, and we also know that different preparations have varying degrees of potency. It is advisable, therefore, to take the precaution of ascertaining the susceptibility of the patient to its action by administering the minimum dose before using the larger dose required to produce the desired result. It is also absolutely necessary to make sure that there is no obstruction in the canal which will counteract the effect of the increased pressure from above, produced by the action of the pituitrin, otherwise the result will be dangerous in the extreme.

I have used the drug in more than 300 cases, chiefly in multiparae, but only in the normal cases where the cervix has been dilated or is dilatable, when the head is in mid-pelvis and where there has been no rigidity of the perineum. In 10 cases, I perceived no effect, in the remainder, the average length of time from the administration of the drug to the completion of the second stage was 20

minutes. There were two cases of tonic uterine contraction readily controlled by the administration of an anaesthetic, which should be kept always ready at hand, and two cases where there was a moderate post-partum hemorrhage easily controlled. Two of the babies showed asphyxia, but cried lustily within 20 minutes. There was no foetal or maternal death in the series.

I have come to the conclusion that pituitrin is one of our most valuable means of shortening the second stage without mechanical interference but it requires the exercise of as much care and obstetrical judgment in its administration as any other method now in use. For instance, one must determine that there is no disproportion between the maternal pelvis and the foetal head. One must know the lie and the attitude of the child, and one must be sure that the passages are clear of obstructions, and that there is no rigidity of the cervix or perineum. One must also determine beforehand the strength of the preparation to be used, and the susceptibility of the patient to its action.

So far as I have been able to determine from the reports of the tragedies following the use of pituitrin, some one of the precautions outlined has been neglected, or there have been other factors which should share the responsibility with this much maligned drug.

Of the mechanical aids, probably the most widely discussed is that of version. Two or three years ago Potter startled the medical world by claiming that the ideal method of eliminating the suffering of the second stage was by converting a vertex presentation into a breech, and delivering as such according to a technique which he has developed to the highest degree of perfection. Oddly enough, however, he did not use this technique in the ordinary breech presentation but resorted to Cesarean section in such cases. The results obtained, however, as far as the foetal mortality was concerned were not as good as those obtained from the conservative treatment of a similar number of cases reported by Polak.

When such a method, conceived and carried out by a master of his art, fails to produce favorable results as far as the foetus is concerned, it should be condemned as of no value to the general practitioner.

The technique of version, however, as described and employed by Potter is well worth considera-

tion by every practitioner, and might be followed with advantage whenever this procedure is indicated.

DeLee actuated by a desire to eliminate the suffering of the second stage has advocated a prophylactic episiotomy and mid-forceps operation which while it does what it is intended to do, converts what should be a physiological process without mechanical interference into a surgical procedure with all its accompanying dangers, and should not be attempted outside of a hospital. It is of considerable value, however, in certain emotional types which cannot be controlled by narcosis. Episiotomy alone I have found of value particularly when the head is delayed too long on the perineum, in elderly primiparae with a rigid perineum and when a tear is inevitable.

In this brief outline of aids to labor I have considered only a few of the methods advocated by men of experience, who have been actuated by the desire either to relieve or to cut short the suffering of the parturient. No one of these methods is perfect but each of them has something in it which is of value to the general practitioner. After all there are three requisites for success in obstetric practice. In the first place, the obstetrician must have a conscience. Remembering the narrow pathway along which his patient is travelling, on the borderland between health and disease, he must take every precaution to secure her safety, so that in the event of a tragedy he will not be compelled to bear the burden of self-reproach. Secondly, he must possess infinite patience and tact enough to avoid being driven into hasty action through the importunities of the patient or her family. And lastly he must possess sound obstetric judgment. The old dictum "Beware of meddling mid-wifery" is sound and sane advice, but with watchful waiting the careful observer finds at times that intelligent interference is not only advisable but life saving.

CHRONIC LARYNGOTRACHEITIS FOLLOWING ROENTGEN-RAY THERAPY OF NECK

M. L. Harris, Brooklyn (Journal A. M. A., April 25, 1925), reports a case of hyperthyroidism, treated with the roentgen rays. The hyperthyroid condition was improved, but the patient died from the destructive effects of the roentgen rays.

ROSEOLA OF THE CONJUNCTIVA

A subacute exanthematous conjunctivitis, peculiar to secondary syphilis occurred in three cases reported by Samuel Morse, New York (Journal A. M. A., April 25, 1925). These patients never knew or were informed of a syphilitic infection, and had no other evidences of it. The history given was that the inflamed eyes would not improve under the ordinary treatment for conjunctivitis, as known.

Standardization in Digitalis Medication*

BY E. F. BICKEL, M. D.,
Oshkosh.

In the past few years much useful work has been done by the various agencies which have grown up for the study and prevention of heart disease. Equal credit should be given to laboratory workers and clinicians who have during these recent years furnished us with exact knowledge concerning the pharmacology and physiological action of the drug Digitalis, knowledge which those of us on "the firing line" may use to great advantage in the handling of our cardiac patients. It is quite possible to prolong and make comfortable the span of life of those suffering from permanently damaged cardio-vascular function, by judicious scientific drugging. And further, many examples may be adduced from our history files where young or even late adult patients giving all the signs of advanced loss of cardio-vascular compensation, have been brought back to useful living and have been kept at work by a proper preliminary dosage of Digitalis with subsequent more or less constant medication. Osler¹ urged that Digitalis is "one of the dozen drugs the uses of which repay a life long study. How he uses it may be taken as a sort of indication of the therapeutic intelligence of the practitioner."

Unless we have come into intimate contact with the teaching of the past five or eight years we are very prone to rely upon the last revision of the pharmacopia or upon the instruction of our medical school or internship days in choosing the size and method of dosage. With this fact in mind I wish to review the necessary qualifications of a truly dependable preparation of Digitalis and the more recent standards which have been definitely worked out in its pharmacology and therapeutics.

DIGITALIS MEDICATION IN THE PAST CENTURY

The account² of how William Withering, the discoverer of this drug, isolated it and selected Foxglove from among twenty herbs that an old woman was using with remarkable success in a concoction for dropsy, is profitable reading. He observed the action of preparations from the various parts of the plant gathered at different seasons on many of his patients, mostly in private homes, a smaller number in the Birmingham General

Hospital, England. He was willing to wait and weigh his work for ten years before publishing his findings. The reports on his cases show an intimate knowledge concerning the physiological action of the drug. Extracts from his first paper published in 1785 entitled "An Account of the Foxglove With Practical Remarks" compare very favorably with anything that has since been written on the subject. This article is concluded as follows: "Let the medicine therefore be given in doses and at intervals mentioned above, let it be continued until either it acts on the kidneys, stomach, pulse, or the bowels, let it be stopped upon the first appearance of any of these effects and I will maintain that the patient will not suffer from its exhibition nor the practitioner be disappointed in any reasonable expectation."

He gave the powdered leaves in from one to three grain doses once a day or the corresponding amount of the infusion, and warned that nausea was produced after about thirty grains were thus administered. Until about thirty-five years ago no findings are recorded in advance of Withering's conclusions. Schmeidenberg at that time isolated the various glucosides after which German and French clinicians labored for a number of years under the false impression that one or the other of the glucosides administered separately gave more valuable results than the whole drug. Preparations such as "Digitaline," a patent name for the alkaloid Digitoxin popularized by Huchard of France, and the alkaloid Digitalin, first marketed and used widely in Germany, have to the present day their advocates in preference to preparations from the whole drug.

VARIATION IN STRENGTH OF PREPARATIONS

In the years immediately preceding the World War, both in Germany and America, there was started a vigorous scientific crusade against the lack of Standardization of Digitalis preparations. The Heidelberg group³ working under Gottlieb called attention to variations of strength in preparations taken from the open market of from one hundred to four hundred per cent. Edmund and Hale⁴ working in the United States Hygienic Laboratory and other workers in America obtained identical results.

*Read before 78th Annual Meeting, State Medical Society of Wisconsin, Green Bay, August, 1924.

The grants for research on this drug by the Rockefeller foundation and the encouragement given to the United States Hygienic Laboratories by the A. M. A. since 1911 have paved the way to a clearer understanding of its pharmacology and its physiological action. Cultural variations depending upon the season, climate, and soil, were quite well understood in the earlier years of the drug's history, with the exception that we were backward in demonstrating that this plant thrives equally well on American soil. (Before the war the western continent was depending largely on English and German firms for the crude drug and many patent preparations.) The effect of light, moisture, and ammonia in the air has more recently been properly appreciated and most firms now date their products and place them in small containers. A fair average for depreciation of the properly prepared Tincture and Fluid Extract sealed under ideal conditions as recorded by various workers is ten per cent in one year. When the leaves are properly sealed in dark containers in the presence of calcium chloride to neutralize the moisture and ammonia in the air, there is about ten per cent deterioration in eighteen months. Firms who mark their products as to the time of biological assay, by what method assayed, and who pack the dry extract for use per oram and for preparation of the infusion in dark containers with calcium chloride should be given preference.

The instability of the infusion has been thoroughly appreciated since Withering's time and no reliance should be placed on the therapeutic effect of an infusion older than a week. We may, however, have to revise our ideas of the instability of the infusion. Weiss and Hatcher⁵ describe a method of its preparation, which furnishes an infusion retaining its activity unimpaired for two years and five months.

The same men working on a grant from the Council of Pharmacy and Chemistry of the A. M. A. have shown conclusively that our old ideas of the solubility of the glucosides must be revised. Digitoxin, Digitalin, and Digitonin are equally soluble in hot water or alcohol. We are therefore getting the identical combination of the drug in the infusion, the fluid extract, tincture or dry extract.

Due attention has been called by numerous clinicians that a drop does not equal a minim and that the number of drops per c.c. varies markedly (a) with the particular make of the tincture, (b)

whether they are dropped rapidly or slowly, (c) whether the dropper is held vertically or obliquely. It is important for the physician to be cognizant of the fact that when, for instance, he has ordered a patient to have a dose of sixty drops of Squibbs Tincture of Digitalis and the nurse holds the dropper vertically, dropping out the dose ordered in say forty seconds she is getting only a dose of fifteen minims into her medicine glass.

Roth⁶ has recently shown that too much emphasis is being laid upon the importance of freeing the Tincture of fat. His findings have been corroborated by the Council on Pharmacy. Both investigations come to the conclusion that fat free Digitalis has no advantage over that not freed from fat.

LACK OF UNIFORMITY IN BIOLOGICAL ASSAY

A considerable amount of confusion arises in the clinical use of the different makes of Digitalis because of the lack of uniformity in biological assay. This fact must be born in mind when changing from one company's make to that of another. The unit for testing physiological activity must necessarily vary with the animal used and is merely relative. The Heidleberg frog unit is the official U. S. P. Standard (.006 mil. Tr. Digitalis per gm. of frog weight shall be necessary to stop the heart of a frog in one hour.) On account of the frog being a cold blooded animal and very subject to variations in physiological action at different seasons of the year and under fluctuations in atmospheric surroundings, this animal does not present the ideal uniform conditions for biological test. In the next revision of the U. S. P. the cat unit (.065 of dried leaf lethal for one kg. of cat) will undoubtedly be the unit of choice. Hatcher⁷ and his co-workers have had ample opportunity to demonstrate the reliability of their method and the reasons for choosing the cat upon which to work out their unit, and have had the advantage of most admirable team work in checking up their results. The guinea pig is used by some companies. A widely used tincture is assayed by this method. Still others recommend fish as the best material for physiologic assay.

THE ERA OF STANDARDIZATION

Forscheimer⁸ predicted in 1915 that we were approaching an "Era of Standardization" in the use of Digitalis. He appreciated the fact that exact knowledge was being established, as a result

of the painstaking work in the various laboratories of pharmacology and animal physiology. More recently, with a proper reliance on the exact strength of the preparation used, the most advances have been made by the clinician in a study of the *patient*. The checks which may be made on therapeutics by the electrocardiograph and sphygmograph have made it possible to establish further definite standards in the realm of medication. There is possibly no other drug that lends itself so well to uniform dosage. We owe much to Eggleston and his co-workers for first teaching us the art of scientific digitalization. There are very few clinicians who do not now adhere to the advantage of giving the drug to the point of early saturation, later keeping the patient under the dose which is tolerated until therapeutic effects are produced. Eggleston's method or slight modification of the same are fully explained by Eggleston & Wycoff,⁹ Christian,¹⁰ Pratt,¹¹ et al, in articles easily procurable. Very briefly, one Hatcher unit is contained in one gr. or ten minims of the Tincture. The weight in pounds of the patient divided by seven gives the number of grains required for complete digitalization (or this figure multiplied by ten gives the required number of minims of the Tincture). This amount is given over a period of three or four days starting with one-third to one-half on the first dose, one-fifth to one-fourth in six hours; one-eighth to one-sixth, six hours later, gradually diminishing the dose, when (a) slowing of the heart rate below seventy, (b) a favorable change in the pulse pressure and (c) diuresis, are established. Saturation must be so thorough that the drug is present in the system beyond the point of absorption and just to the point where centric nausea and vomiting or where shock and heart block are not produced. White¹² found that only about twenty minims of the drug can be excreted per day and that therapeutic effects depends upon the quantity of drug retained.

Pardee,¹³ Cohn, Fraser and Jamison¹⁴ furnished additional evidence in favor of initial massive doses. Their first dose equals one minim of the Tincture to one pound of the patient's body weight. Robinson has given twice as much as Pardee on the initial dose. These latter workers have given their still more massive doses with impunity, because their safety limits were most accurately checked with the electrocardiograph. They have demonstrated conclusively that before untoward

symptoms arise from overdose of Digitalis a change in the T wave may be detected on the electrocardiograph.

The very recently published statement of the Council on Pharmacy and Chemistry¹⁵ concerning the standards in rectal and intravenous administration are as follows: "Rectal dosage may be calculated in the same way as oral, experience having shown that absorption is as rapid after rectal as after oral administration." "The committee knows of no satisfactory study of the amount of strophanthin or digitalis necessary for saturation by intravenous or intramuscular injection, and of the suitable division into doses and intervals between administration. This subject is in need of careful investigation."

SUMMARY

In this Era of Digitalis Standardization we are approaching toward a common knowledge in the following respects:

1. That the Dry Extract, Fluid Extract, and Tincture marked as to Cat Unitage and time of biologic assay, are the preparations of choice and the Dry Extract is the most staple preparation and from its use we may expect the most uniform results.

2. That agreement on a single unit is necessary, and that in America at least, Hatcher's cat unit should be the one adopted in the next revision of the U. S. P.

3. That the most satisfactory therapeutic effects may not be expected until digitalization within physiological limits has taken place, and that to secure this we must forget our earlier teaching in respect to small initial doses.

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DISCUSSION

PRESIDENT SLEYSTER: The paper is now open for discussion.

DR. C. H. STODDARD, (Milwaukee): Mr. President, at the risk of making myself rather obnoxious on the subject, because I get up every chance I get to harp on the dosage of digitalis, I am going to say that I don't believe in giving digitalis in minim doses. That should never be. In the training of our nurses and apparently in the training of our druggists, the teaching is that a minim is a drop. I never prescribe digitalis without also prescribing a cubic centimeter pipette be given with the remedy.

So far as the standardization of the drug is concerned, I think we have gotten along pretty well. We can get good reliable digitalis nowadays. The question is in the dosage. I had experience the other day in prescribing for a man who was in my office. I prescribed an ounce of tincture of digitalis of a good preparation, with directions to take one cubic centimeter three times daily, and on that prescription I specified for the druggist to furnish a 1 c.c. pipette. The man lived in an out-lying town and in two or three days he telephoned me that he wasn't any better. I said, "How much are you taking?"

"I am taking sixteen drops."

I said, "Did the druggist give you a pipette?"

"No, he didn't have any pipettes, but he told me sixteen drops were the same as 1 c.c."

I procured a 1 c.c. pipette and went to this druggist and said, "Will you please drop me out sixteen drops?" He dropped out a fourth of that 1 c.c. pipette. I said, "Drop out your full pipette, and see how many drops you get."

He got fifty.

A year ago I was down south and was taken through a charity hospital in Birmingham, Alabama, where there was a large ward of negroes, many of whom were cardio-renal cases. I asked the doctor who was showing me about, "I suppose you use the Eggleston method?"

He said, "Yes, we originated the Eggleston method. We have a crowded service and have to get the colored men out as fast as we can. We have always for several years given them a tablespoon dose of tincture of digitalis as soon as they came into the hospital."

Remember that sixteen minims of tincture of digitalis are not a c.c.

DR. KAUMHEIMER: Mr. President, I have had the same trouble that Dr. Stoddard has had, to get the druggist to dispense a proper pipette. I have even written to one of the manufacturers to whose preparation I am partial because at the time I got acquainted with it, it was about the only reliable one, suggesting that they furnish a 1 c.c. dropper with each bottle.

In regard to dosage, you occasionally run across cases that are quite susceptible. I remember a woman who was my patient a number of years, at intervals, in the Milwaukee Hospital. She would come in blue, with rales all over the back of her chest, and a much disturbed heart. She had a compound valvular lesion. If you gave her fifteen drops of ordinary tincture of digi-

talis and put her to bed, in thirty-six hours her pulse would be slow. Dr. Patch remembers the case, too. She was rather intolerant of digitalis.

I have had other cases quite the opposite. I can recall a case with no valvular lesion but a chronic cardio degeneration in which I didn't get anywhere with fifteen, twenty and twenty-five drops, and in order to get this man comfortable I had to run there every day and give him an intravenous injection of strophanthin. I started him on teaspoonful doses. After taking teaspoonful doses three or four days, I began to get some effect. So the dose must be individualized. The Eggleston method is all right when you have the patient in a hospital with attentive nurses and an intern who knows the danger of symptoms; but you can't trust that to a wife or daughter who means well and is a good housekeeper but doesn't know much about sickness. At any rate, no matter what the dose, we will have to give enough to produce some effect, either toxic or therapeutic.

PRESIDENT SLEYSTER: We would like to hear from Dr. Smithies on this.

DR. SMITHIES: Mr. Chairman, I agree most heartily with everything that has been said regarding digitalis and its medication except that I want to protest against the discovery of these errors in standardization of different commercial preparations as having come from abroad. Edmonds eighteen years ago called attention to the very fact which has been brought out today, not only with respect to the infrequency of finding a suitable preparation but with respect to the necessity for the prescribing of definite quantities and not drops. We have always used digitalis as a distinctly emergency drug, not as a drug which could be left in the hands of the patients for days and weeks to take as he wished. We think that the therapeutic effect of digitalis is actually for emergencies, and when that effect is being reached there is no other need for the exhibition of digitalis, because the prolongation of the toxic effect which is really therapeutic really leads to fibulation, flutter or heart block.

We feel the majority of practitioners use digitalis a little bit too carelessly. I am quite certain that of the number of cardiac erythemias that come to me in the course of a year, a considerable portion of them are due to the persistent use of digitalis preparations long after there is any need for digitalis, this being particularly so in these days when we are checking up our erythemia with the electrocardiograph. (Applause.)

PRESIDENT SLEYSTER: Any further discussion? If not, Dr. Bickel, will you close the discussion?

DR. BICKEL: Mr. Chairman, I was glad to hear the note of warning that Dr. Kaumheimer issued. Personally, I would be very much afraid to employ the dosage that Pardee, Cohen, Jamieson and Frazer are using in their hospital work. It seems to me that one could find a safer amount for the first dose. I have had a comparatively short experience of my own. I have not found any patients that had an idiosyncrasy to digitalis, but one hundred and fifty minims, at the first dose, it seems to me, might lay some patients low and the cause might be the dose and the physician who gave it. (Applause.)

Letters from Abroad; Drs. Louis Warfield and Edward T. Evans Tell of Work in Vienna and Rome

Vienna, Mar. 31, 1925.

My dear Mr. Crownhart:

In one of my letters I said that I would go further into the subject of Banti's disease, especially the point of view expressed here by such men as Eppinger and Sternberg whom all Americans know at least by name. In a letter such as this I can only give a brief summary of the Vienna view. This disease is certainly not common here. Since January first I have been in the Wenckeback Klinik, a hospital of about 180 medical beds, where I have seen all the interesting cases, and I have seen but one case of the disease which we call Banti's disease. As this was seen briefly in clinical demonstration I would not vouch for the accuracy of my diagnosis. I am told that it is a rare disease here. All the Vienna clinicians and pathologists hold strictly to the description given by Banti, especially to the pathological changes in the spleen, fibroadenia. They hold that the syndrome is not specific. It may occur in sclerosis of the portal vein or of the splenic vein, even in cases of cirrhosis of the liver with enlarged spleen. They say they never find the histological changes described by Banti as characteristic, therefore they do not believe that a specific disease entity exists. A great number of unusual cases of icterus both with and without acholic stools and with and without choluria is seen here. Some of the cases have intermittent fever and some have ascites. No cause can be found for such symptoms. Often there is leucocytosis. Some of the cases are undoubtedly due to hepatitis. I have seen sections of a piece of the liver removed at operation from one case with high irregular fever, jaundice, normally colored stools and no bile in the urine. There was leucocytosis and the spleen was much enlarged. I have never seen so many unusual icterus cases in all my experience. None of them corresponded to what we call Banti's disease. As far as I can see, fogginess instead of clarity envelops this group of diseases more than ever.

There is good work in children's diseases to be had in Vienna. As good as any is that to be found at the "Kinder Klinik" directed by Prof. C. V. Pirquet. He has a splendid new well equipped and well arranged hospital. It is one of the five new kliniks which were completed before the war.

It is a series of three buildings close together but not connected with each other. In one building is the outpatient department, the lecture rooms, the administration offices and laboratories. The diet kitchens and the wards for all infants with feeding problems are in this building. The wards are well arranged, are light and airy. One building is practically given over to children with all forms of tuberculosis, except the severe pulmonary forms. Sleeping porches and open-air school are provided for the children. There is also a kindergarten. One can see that much attention is paid to social service work. The infectious pavilion, called the "Escherich Pavillon" is a series of small rooms with glass walls around which is a corridor. The construction is somewhat different from the other hospitals for infectious diseases which I have seen in other places. The whole plant gives one the impression of being very carefully planned. Prof. V. Pirquet always visits the diet kitchens on his rounds. Further, he requires every one of his assistants in the infant wards to spend at least one month in the kitchen doing the work of a nurse. I might remark here parenthetically that if we doctors knew more about foods and their preparation we should be better able to treat our patients. Prof. V. Pirquet himself gives no clinics to the Americans. During the academic year he gives a weekly clinic to the students of the University. Many Americans attend these clinics. I am told that they are very interesting. His assistants are always giving special courses to the Americans. There are other children's hospitals here where one can get good work but I have no personal knowledge of them.

SKILL IN FLUOROSCOPY

I am greatly impressed by the skill which the x-ray men have developed in fluoroscopy. In gastro-intestinal work they rarely take plates, in heart work they make orthodiagraphic tracings and rarely take teleoroentgenograms. Holzknacht says, "Fluoroscopy is like visiting a place. Plates are like looking at picture post cards of the place." It is only in chest work where they are in doubt as to fine apical lesions or where there is a suspicion of miliary tuberculosis, or where they want some picture for close comparison later, that plates are made. All say, that except for the lungs, fluoros-

copy is better than the making of plates. There is no doubt that their opinion is to some extent influenced by the expense connected with the taking of plates as we do. There is also no shadow of doubt that they have had to develop their fluoroscopic skill because of its economical feature. The fact remains that their skill is extraordinary. It has been developed by an intensive study of lesions on the living checked by careful post mortem examinations. In a country where every case which enters a hospital and has a fatal termination is subjected to careful post mortem examination, advance in knowledge is much more rapid than in a country where post mortem examinations are discouraged. It is said that Rokitansky, the great pathologist, is responsible for the universal post mortem. Certainly where one knows that he will be checked up in his diagnosis in every fatal case he is much more apt to be careful and accurate in his work and to leave theories and superstitions to old women.

Holidays now and things are rather dull. The next session begins early in May. Many of the doctors are going on Easter vacations. I hear some growling among the Americans who have come here recently. This is vacation time for the Viennese when everybody goes somewhere away from his home place.

Sincerely yours,

LOUIS M. WARFIELD.

DR. EVANS VISITS ROME

The following are extracts from letters to Dr. Edward Evans of La Crosse, Wisconsin, from his son, Dr. Edward T. Evans, who is now in Europe.

"Rome, February 11th. We visited the great Polyclinic Hospital of Rome. It certainly is a huge place, built about twenty-five years ago, and arranged in rows of two-story and three-story clinic and ward buildings, covering an area correspondent to about three or four of our city blocks, the buildings surrounding the block to leave an open court. The front row is that occupied by the medical school buildings and administration offices, with a few clinics, as for example, the eye and ear department, which they say is excellent though we did not visit it.

On entering we were taken to the Director, a fine old gentleman of about seventy-five, who, however, could not speak either English or German so he sent us to the Queen's Training School for Nurses, which stands at a corner of the back row

of buildings, where also are nine medical ward buildings and five surgical ward buildings. It is interesting to note that these buildings are built, as all real buildings in Rome are, for posterity. The walls are solid, a meter thick, the floors in marble and cement like terra cotta. The Training School was established at the Queen's request fifteen years ago, English nurses having been invited to take charge. We met the matron and an English nurse who has been with the school from the beginning, and there we gained an excellent idea of the hospital, its management and the nursing.

NURSING STANDARDS IMPROVED

The hospital is a governmental affair and at present has two thousand beds and about 350 nurses, 60 of whom are of the Queen's School, which has charge of three surgical wards and one medical ward in addition to some administrative duties assigned to them. Except in the Queen's School the standards of nursing are low; however, much improved since the war. At the time the School was established the nursing was done by any woman who cared to take the case in hand, usually a char woman. They were loathe to adopt the English standards and furthermore, nursing was considered menial work, so none of the better class of women ever took it up as a vocation, much less as a profession.

The war, however, changed much of this as the Italians found themselves handicapped by a lack of trained nurses. Now, after many years of struggle and political opposition, the Queen's Training School has a bright future and its work is being initiated elsewhere, poorly as yet in many cases, but a beginning in the right direction of higher standards.

After going through the School, which is much like our own, we went through several of the wards. To describe one is to describe them all except that what we were told of the character of Italian nursing was impressed on us when we saw the spotless cleanliness of the wards in charge of the Queen's School and the careless untidiness of the other wards. The wards are all connected by underground passages for the conveyance of food from the kitchen in the center of the court and for other trucking. In addition, a covered walk connects them.

The wards themselves are about 140 feet long and 30 feet wide with some 40 beds. Light is

from long high windows on each side and heat is from two hot air shafts rising in the center of the aisle. A lavatory at each end and a small diet kitchen and administrative office are near the entrance. Each ward building has two floors like this and above these, each surgical building has a well equipped operating suite. Each surgical building has its own team and staff surgeon. I was impressed with the fine equipment of the operating room, complete in every detail. Operations, except in emergency, are performed every other day to allow for the preparation of sterile goods. Dr. Bastinelli's operating rooms differ from these in that his are glass enclosed to allow clinics to watch and his rooms are supplied with air, sterilized with high temperature and blown into the room. Unfortunately, we were not able to see his work. I noticed that ethylchlorid is used as an anesthetic.

After visiting the operating rooms we went into another building to see the x-ray department, which struck us as quite inadequate for so large a hospital, being smaller than many of our own well equipped clinics. However, we next saw a photographic room where specimens and x-rays are photographed for incorporation in the records.

From there we went to the orthopedic department. Their treatment of fractures are much like ours, their aim being to immobilize the fragment, but to allow mobility elsewhere whenever possible. We also saw a very well equipped department for the training and recuperation of crippled limbs. Since the war, however, much of this has not been used.

This completed our visit to the Polyclinic, but before leaving we asked if this hospital was typical of the large Italian hospitals, as we were much impressed by its completeness. We were told that it was not. The Hospital is relatively new and was built with foresight by men who wished to set the example, and it is planned according to English and American hospital standards and held to those standards largely through the influence of the Queen's Nursing School in its example and the high ideals of Dr. Bastinelli."

A. M. A. CLUB IN VIENNA

"Vienna, March 6th. Here we are in Vienna, after having spent some days in Florence and in Venice: the latter cities were too interesting, historically and artistically, to devote any time to visiting hospitals. Here, however, the temptation is too great. I went to visit the A. M. A. Club

where the American doctors congregate and decided to do some work while here, so at once arranged with Professor Erdheim to take a course in gross pathology, and with Dr. Wiesenthal, Dr. Lorenz's assistant, in operative orthopedics on the cadaver."

"March 12th. I came here as you know with the idea of looking on, but after meeting several of the American doctors here and visiting Professor Erdheim's course in gross pathology, I felt I would gain more by joining the A. M. A. and taking his course and such other work as I could get to while away my time, during the few weeks I will be here. More especially, too, because one would have to stay here weeks to orient himself and months to gain a true idea of the organization of hospitals and the enormous amount of work here.

To begin with, Vienna is emerging slowly from its postwar slump, and Austria is making a desperate attempt to re-establish itself. There are those who say this will not be possible because the Empire is dissolved and Austria was more or less a parasite without much wealth in its own boundaries. For example, Czecho Slavonia is very rich and was taxed enormously, all of which came to Austria to be divided roughly as follows: for every fifty dollars, twenty-five went to Austria, ten to Tyrol, ten to Hungary and only five to Czecho Slavonia. This yoke was so heavy that during the war the Czechs saw their opportunity and mutinied, removing their troops from the Russian front to the Italian and French fronts, and later they seceded. So Vienna, with its beautiful buildings and parks, is a sad place now with insufficient funds to keep up the necessary repairs and so forth. In addition to this, the nobility and rich lost heavily during the war and are now without income. The middle and lower classes, too, lost heavily but are more industrious and are now getting back on their feet to some extent: but many believe that the 'convalescence' will be very slow and doubt if it will ever result in complete restoration to pre-war conditions. Even now there is agitation for the union of Austria with the surrounding states, which the upper class recognizes as an economic position to be desired, but the other states are "shy" of entering into such a union.

There is very little money being spent in Vienna. Many restaurants are closed, those that are open are only half filled, and to a large extent, by the parasitic types so prevalent in Vienna

today. With few exceptions, the stores are not busy, and the goods, especially woolens, are not of first quality and the prices nearly as high as ours for the poor quality. In contrast to this, the prices of lodgings are low, probably because a hotel or pension must stay open. If it shuts down the government commandeers it for its own purposes. Likewise, if a room is advertised for rent the government may step in and take it.

INCREASE IN TUBERCULOSIS

To turn to medical conditions. During the years of 1916-1917-1918-1919 the people were in desperate straits. One professor said he often lived with only one loaf of bread for a day, and he is in fairly good condition. Prior to the war, Austria was singularly free from tuberculosis, but during these four years the bodily resistance of almost everyone was so lowered that tuberculosis has become rampant. It certainly is surprising to us to see almost every case a victim of tuberculosis. For example, a throat man was in the ear clinic the other day and casually examined the throats of about twenty patients there, and reported about forty per cent laryngeal tuberculosis in various stages. They are full of it everywhere one looks. Enough of that.

The hospitals here are mostly under state control, and because the state is poor, are of course sadly in need of money and repairs. The professors receive about \$30 a month and here, if anywhere, one finds the medical professions working for the sake of science because they do work hard. The postgraduate courses are expensive. No doubt of it, but they furnish opportunity for extra money for the professors. It is regrettable that some of the professors have lately been attempting to overdo the thing and boost their charges. Another regrettable fact is that some of the great professors openly admit that a trip to America for a few months gives them enough money to live on for some time. After hearing statements like this, one almost feels that they are going to the other extreme of commercializing their abilities. However that may be, there can be no question of the wonderful opportunities here for postgraduate work. This is especially true in the eye, ear, nose and throat department which has been highly organized for this work, and of which Dr. Smith could tell you more than I. Also, in certain fundamental courses in surgery, especially pathology, the opportunities are undoubtedly the best in

the world. When one realizes that the mortality is very high because of the poor resistance of the patients, and that autopsies are performed in over 90 per cent of the cases, he can see the reason for this statement. For instance, in the Weinerstadt Spital, which by the way is city owned and therefore in much better financial circumstances, there is said to be about 18,000 beds all told (no one seems to know just how many), and Professor Erdheim told me one day that there had been 38 autopsies that day, and these autopsies are almost all complete, the specimens being complete in every detail; for example, an endocarditis case would be so autopsied that an entire cardio-vascular system could be traced in one specimen to show the emboli in various organs. I saw one case of Potts Disease of the fifth dorsal with miliary tuberculosis, in which the whole spine and thorax had been removed. Another, tuberculosis of the ischium, in which the pelvis was removed in toto. The face alone is undisturbed.

Just as the opportunities for gross pathology are great, so also are the opportunities for microscopic pathology, no less. And naturally the clinicians are checked more closely than anywhere else in the world, and profit thereby.

Because postmortem work is so freely permitted, there is a great opportunity in Vienna for cadaver work in any of the surgical branches.

However, because their surgical technique and ingenuity is governed by that of the "Herr Professor," the actual advance in surgery seems behind ours, and despite the advantages offered in the fundamental courses, it is doubtful if Vienna will prove as great a center for surgery as it has in medicine, and eye, ear, nose and throat, where material for unlimited observation and study is paramount. As one Vienna surgeon said, "Before long we shall be obliged to go to America for our surgery; not you to Vienna." The "Herr Professor" is slow to change his methods, and assistants must follow his, and by the time they become professors they, too, are loathe to change their methods. It is true, however, that because of the war more younger men hold higher positions and advance in surgery may be more rapid. At present, however, the concensus of opinion among the Americans in Vienna is, that the most work in surgery can be gotten in the fundamentals, in clinical diagnosis, cadaver work and pathology.

As for myself, I am taking Professor Erdheim's

work in gross pathology three times a week for the few weeks I am here and he is a wonder. I will show you my notes when I get home. Am also taking five hours cadaver work from Dr. Wiesenthal, Dr. Lorenz's assistant in orthopedic surgery. It is very good, comprehensive and well worth while, because he is a good teacher (even though in German I find I understand him well). He is careful to point out danger points, and reasons why other methods are not tried, and I find their work is conservative and logical in orthopedics. Am also spending mornings at the Lorenz Clinic where I have seen many interesting cases and several operations, namely, a subcutaneous osteotomy of the femur for ankylosis of the hip with deformity, and a similar open operation. I also

saw their treatment for club foot on several occasions and I am satisfied that it is excellent. All in all, I am very glad that I stayed here for those few weeks and feel it has all been worth while, though I cannot presume to have gained much from it when others come here for from three months to two years.

I have thoroughly enjoyed my stay here, though the town is not what it used to be. Have met several doctors, many in fact, and they are mostly good fellows. We have visited the Vienna International Fair held to stimulate international trade with Vienna as the distributing point for foreign traders—a commercial fair with wonderful exhibits. But I am afraid I'd write another ten pages on the Fair if I started, so I'll close."

AMERICAN PROCTOLOGIC SOCIETY

PRELIMINARY PROGRAM

Meeting at Ambassador Hotel, Atlantic City, N. J.

May 25-26, 1925.

First Day—Monday, May 25, 1925.

9:00 A. M. Presidential Address: Dr. Frank C. Yeomans, New York, N. Y. (10 min.)

"Anesthesia in Rectal Surgery:" Presentation—Dr. G. Milton Linthicum, Baltimore, Md. (20 min.)

Opening Discussion: "Spinal Anesthesia," Dr. A. J. Murietta, Los Angeles, Calif. (10 min.); "Sacral Anesthesia," Dr. L. A. Buie, Rochester, Minn. (10 min.)

Case Reports: "Congenital Malformations of the Rectum and Anus," Dr. J. F. Saphir, New York, N. Y. (5 min.); "Functional Stenosis of the Rectum," Dr. A. A. Landsman, New York, N. Y. (5 min.)

"Proctologic Advances Revealed in the Literature of 1924," Dr. T. C. Hill, Boston, Mass. (20 min.)

2:00 P. M. "Ano-rectal Fistulae:" Presentation—Dr. Collier F. Martin, Philadelphia, Pa. (20 min.)

Opening Discussion: "Probable Relation of Tuberculosis," Dr. W. A. Fansler, Minneapolis, Minn. (10 min.); "Surgical Treatment," Dr. J. D. Stewart, New York, N. Y. (10 min.)

Case Reports: "An Unusual Case of Rectal Fistula," Dr. W. M. Beach, Pittsburgh, Pa. (5 min.); "Mercurochrome in Proctology," Dr. D. A. Kraker, Newark, N. J. (5 min.); "Multiple Diverticula in Rectum," Dr. I. L. Ohlman, Pittsburgh, Pa. (5 min.)

Second Day—Tuesday, May 26, 1925.

9:00 A. M. "Hemorrhoids:" Presentation—Dr. Louis J. Hirschman, Detroit, Mich. (20 min.)

Opening Discussion: "Ambulatory Treatment," Dr. E. H. Terrell, Richmond, Va. (10 min.); "Composite Operation," Dr. E. G. Martin, Detroit, Mich. (10 min.)

Case Reports: "Preliminary Report of a New Treatment for Hemorrhoids," Dr. J. F. Montague, New York, N. Y. (5 min.); "Incomplete Removal of Hemorrhoids," Dr. W. H. Stauffer, St. Louis, Mo. (5 min.); "Ionization Technic in Pruritus of Perineum," Dr. H. E. Dunne, Washington, D. C. (5 min.)

2:00 P. M. "Cancer of the Rectum:" Presentation—Dr. J. Rawson Pennington, Chicago, Ill. (20 min.)

Opening Discussion: "Treatment by Radiation," Dr. C. C. Mechling, Pittsburgh, Pa. (10 min.); "Results of Surgical Treatment," Dr. J. M. Lynch, New York, N. Y. (10 min.)

Case Reports: "Treatment by Percy Cautery and Endothermy," Dr. Arthur Crookell, Seattle, Wash. (5 min.); "Resection of Gangrenous Sigmoid with Recovery," Dr. John L. Jelks, Memphis, Tenn. (5 min.); "Multiple Adenomata of Rectum," Dr. Curtice C. Rosser, Dallas, Texas (5 min.); "Multiple Polyposis of Rectum; Conservative Treatment," Dr. D. C. McKenney, Buffalo, N. Y. (5 min.)

Executive Session: (30 minutes).

Adjournment to attend the Meeting of the Section on Gastro-enterology and Proctology of the American Medical Association.

OPPORTUNITIES FOR GRADUATE MEDICAL STUDY IN NEW YORK

The Committee on Medical Education of The New York Academy of Medicine has prepared a series of synopses of approved opportunities for graduate medical study in New York City which will soon be published for distribution. The synopses cover dermatology and syphilology, obstetrics and gynecology, internal medicine, neurology and psychiatry, ophthalmology, oto-laryngology, pediatrics, surgery, urology, and orthopedic surgery.

A Bureau of Clinical Information is maintained at the Academy of Medicine, 17 West 43rd Street, where detailed information is available regarding opportunities for graduate medical study in New York, and also in other cities of the United States and abroad. The Executive Secretary in charge of the Bureau is prepared to answer inquiries concerning ordinary internships, special internships or residencies, graduate courses in medical schools and teaching hospitals, and extension courses. Much information in regard to graduate medical work in England and on the Continent is on file.

THE WISCONSIN MEDICAL JOURNAL

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May, 1925

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SERVICE AVAILABLE

There is listed the following definite services that are available to our readers—the members of the State Medical Society of Wisconsin. If you have a need not covered here address the Secretary, Mr. J. G. Crownhart, 558 Jefferson Street, Milwaukee. "Let George do it."

FOR THE MEMBER

1. *Package Libraries* are now available on Cancer, Schick Test, Vaccination, Periodical, Physical Examinations, Insulin, Fractures of Long Bone, Protein Treatment, Control of Communicable Diseases, Goiter, Digitalis, Pneumonia, Diseases of the Knee, Encephalitis, Asthma, Epilepsy, Meningitis and Scarlet Fever. Address Package Library Department, Extension Division, University of Wisconsin, Madison. Material on other subjects compiled upon request.

2. *Medical Books* will be loaned by the Medical Library, University of Wisconsin, Madison, Mr. Walter Smith, Librarian. Order through local library where possible.

3. *Physicians' Exchange Column* is open to all members without charge.

4. *New Scientific Publications* listed in the Book Review columns of this Journal are available for inspection by the members. They are in the Medical Library, University of Wisconsin, Madison. Place your order through your local library where possible or address Mr. Walter Smith, Librarian.

5. *State Laws* and departmental rulings can be secured through the Secretary's office.

6. *Legal Advice* upon questions pertaining to the practice of medicine will be given in so far as is possible. A complete statement of the question or facts must be forwarded.

7. *Legislative Service.* Upon request members may secure information upon any measure introduced in the 1925 Wisconsin Legislature.

FOR THE COUNTY SOCIETY

1. *Program Material.* Pursuant to authorization by the 1924 House of Delegates the Secretary is arranging to make program material available without cost. The following can now be secured:

A. Departmental Officers of the State Board of Health. Address Dr. C. A. Harper, State Health Officer, State Capitol, Madison, Wis.

B. Clinicians of the Wisconsin Anti-Tuberculosis Association when in vicinity. Address Clinic Dept., W. A. T. A., 558 Jefferson Street, Milwaukee.

C. Councilors and Officers of the State Society. Address the individual.

2. *Annual Statements.* Uniform annual statements can be had without cost. Address the Secretary, advising number desired.

EDITORIALS

THE ANNUAL MEETING

A LETTER has been sent to the Secretary of each County Medical Society requesting him to read an editorial on the 1925 meeting published in the February issue of The Wisconsin State Medical Journal at the next meeting of his organization and to urge members to volunteer papers. Many have so volunteered. Many more should do so. The Program Committee wishes to have a large number of papers from which to make selections in order to assure a successful meeting. The number selected will be smaller than usual, but more time will be given to discussions.

Members of the State Society are again requested to volunteer contributions to the program, and to send a summary of the paper as well as a title.

The Program Committee has but one purpose: to make this a profitable meeting. The members of the Committee are asking you to help them to serve you more effectively.—J. G. C.

A REAL OPPORTUNITY

THERE are no less than 55,000 men, women and children in the State of Wisconsin with sufficiently clearly defined heart disease to call for medical supervision of their mode of life. Specifically who and where the vast majority of these 55,000 are, literally no power on earth now knows. And yet those comprise the field in which, given the opportunity, medical laborers could, by the application of their art, save the lives of hundreds of Wisconsin citizens annually.

And, of course, practically all of the families of those 55,000 people would gladly avail themselves of the services of the medical profession were it not for the fact that the ones affected do not realize that they are in a situation which calls for such medical supervision as we are here thinking of. The inherent nature of heart disease puts its discovery, and usually even the intelligent suspicion of it, beyond the patient and family. It is emphatically the job of the medical profession, alone, to *discover* these cases that only physicians can.

The public *desires* the service we can render (however inarticulate it may be) because self-preservation remains the most fundamental of the

biologic instincts and man will pay his bottom-most dollar to prolong his life—if he can but be fully assured that he will receive what he is paying for. But it is not the bottommost dollar we need to consider. What is spent on chewing gum, cosmetics, cigarettes and other dispensables would go a tremendous way in getting thousands upon thousands of heart victims nicely adjusted to their condition and in position to live out their “allotted three score and ten years” very happily.

In addition to the *obligation* implied above, there is a tremendous *opportunity* ahead of the medical profession in the control and prevention of heart disease. Here is a line of service for which the beneficiaries can afford to pay well, because what they pay will be but a small fraction of the earning power that will be saved through prolonging the lives of the afflicted by many years.

—H. E. D.

THEY CAME TO HONOR HIM

“HAMMOND FOLKS HONOR GOOD
OLD COUNTRY DOCTOR.”

THE Eau Claire Leader tells us that on March 20th, three hundred residents of Hammond and vicinity gathered to celebrate the fiftieth year of service given them by Dr. E. L. Boothby. Would that all his fellow practitioners in Wisconsin could have been there.

“Everybody was there,” says the Leader. “A Methodist minister sang in the quartet that entertained, the Catholic priest of the community was toastmaster, there were doctors from the Twin Cities and from all the neighboring towns, lawyers, dentists, bankers, merchants, farmers, railroad men, laborers: persons from every walk of like came to pay Dr. Boothby tribute. It was estimated by one that probably eighty per cent of the Hammond folks attending had been brought into the world by the kindly hands of the old physician, and nearly all of them had been guided through illnesses ranging from cut fingers to double pneumonia by his ministrations.”

We can not add to this tribute. We can only join in it and in so doing, like his fellow citizens of Hammond, we but do honor to ourselves.

HE STUDIED *

“Dr. E. P. Lyon, Dean of the Medical School of the University of Minnesota, told of the great im-

pression Dr. Boothby had made on him as a man seventy-six years old taking additional work in short courses at the University. He was so taken with the old physician's vigorous personality that he invited him to talk to the students as an inspiration to them."

HE SERVED IN THE "COUNTRY"

"He was for fifty years the faithful and efficient watchman over the lives and health of the folks of Hammond. At the close of the program they presented him with a check for a fund gathered from his loving townfolk and tendered as their material appreciation of what he had done for them in his fifty years of work."

* * * * *

This editorial has not just been written—it has been lived.—J. G. C.

AN EXCELLENT RECORD

IN RECENT bulletins of the American Medical Association (sent to all who are Fellows) much has been said relative to the place that the county medical society should occupy in the field of medical organization. The point has well been made that only as the county society prospers can medical organization progress and fulfill its proper functions.

In the Society Proceedings column of this issue, there will be found a short summary of the programs for the Eau Claire and Associated Counties Society during 1924. The year's program of this society is comparable with those of societies with a membership far larger. The society is deserving of praise for its 1924 record.

When a county society can present such a record as this, there is no question of its deserving high position in the field of medical organization. It is true that not every county society in Wisconsin has an equally good location nor have the majority a membership of around fifty. But it is also true, that carefully planned programs make the meetings attractive to the members and all benefit thereby.

THE ATLANTIC CITY SESSIONS

DURING the latter part of this month, May 25-29, the American Medical Association will hold its annual meeting at Atlantic City. The preliminary program of the scientific assembly was published in the Journal of the Association for April 18th.

Throughout the week of the meeting Wisconsin will be represented in the House of Delegates by Drs. Rock Sleyster, Vice-Speaker, Wauwatosa; Horace M. Brown, Milwaukee, and Joseph F. Smith of Wausau. We express the hope that Wisconsin will have a large representation for the scientific assembly. We call the attention of members who plan to attend the Atlantic City sessions to the special train service that is noted on page 680 in this issue.

THE JOURNAL CLINIC

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THE BUREAU OF POST-GRADUATE MEDICAL
INSTRUCTION

UNIVERSITY EXTENSION DIVISION

The University of Wisconsin

GRAVE HEMATURIA FROM A DOUBLE SOURCE—KIDNEY STONE AND PAPILOMA OF THE BLADDER

BY W. M. KEARNS, M. D., AND E. F. COOK, M. D.

MILWAUKEE, WIS.

A man, 58 years of age, referred by Dr. W. V. Nelson, entered the hospital December 7th, 1925, complaining of hematuria, weakness and vertigo.

The family history revealed a maternal grandmother, who died at 70, and a sister at 65, both with tuberculosis.

The patient suffered with arthritis since the age of 14 years having a severe attack in "many joints" at 21 years of age when he was in bed for six months. He has had considerable pain and stiffness in the spine and shoulders at various times since.

The present illness started six months ago with hematuria, at first occasional and brown in color, but steadily increasing in amount to a total hematuria during the past two weeks, the urine containing clots and varying small amounts of red blood. There was no noticeable loss of weight or appetite. During the past two weeks there were headaches, dizziness, weakness and cardiac palpitation. The urine was about half blood and there were no urinary symptoms except a slight frequency every three hours day and night.

The physical examination elicited nothing except advanced anemia. The blood pressure was 98 systolic and 70 diastolic. The red blood cell count was 3,050,000; hemoglobin 50%. The differential and white cell counts were normal and the clotting time was 3¾ minutes. X-ray showed a probable stone 1½ cm. in diameter in the region of the lower calyx of the right kidney. In addition the entire dorsal spine showed a marked productive arthritis with ankylosis between the first and second and second and third lumbar vertebrae and lipping of the lower lumbar vertebrae.

The extensive amount of bleeding made it seem questionable that the probable stone in the kidney pelvis was

causing the bleeding. A bladder neoplasm was suspected, but cystoscopy was impossible with such profuse bleeding. Accordingly a cystogram was done—150 c.c. of 10% sodium iodide was injected. The bladder outline appeared normal under the X-ray.



FIGURE 1. Cystogram showing normal bladder filling. The defect in the left side of the fundus was seen in the original film to be continuous with bowel and was interpreted as due to pressure from without. Later cystoscopy proved this to be correct as the small papilloma on the left anterior wall of the bladder was much too small to produce this defect and was located some distance from it. The stone shadow in the right kidney was retouched.

The following day a cystoscopy was attempted, but while the bladder water cleared on irrigation several large clots which could be neither broken up or aspirated, obscured most of the bladder wall. The ureteral orifices could not be brought into view by any change of position. As much of the bladder wall as seen appeared normal.

The blood chemistry examination showed normal sugar, nonprotein nitrogen and creatinine readings, and a negative Wassermann.

A transfusion was decided upon. The patient's blood belonged to type IV. The blood of a robust son of a different complexion was type II and a daughter's of the same complexion as the father, was type IV—both children were serologically negative. The daughter's and father's bloods were cross typed and found compatible.

On December 12th, 1924, five days after entering the hospital the patient was transfused with 465 c.c. of his daughter's blood, using the direct whole blood method with the Miller-Shuttlo apparatus. The blood pressure rose from 108 systolic and 76 diastolic before the transfusion to 122 systolic and 80 diastolic after. The clinical

improvement was marked, symptoms of dizziness, weakness and palpitation disappearing. The only reaction was a blotchy erythema on the face and forehead which appeared twenty minutes after transfusion—and vanished in a few hours.

The patient was kept at rest and given methylene blue and calcium chloride medication for three days and the bleeding lessened. Another cystoscopy met with the same difficulties except that the right ureteral orifice, brought into view, was seen to be ejecting a bloody urine and was catheterized with a No. 5 X-ray catheter. An obstruction was met four inches up the ureter. A pyelogram was done which included the suspicious shadow and proved it to be a calculus located in the lower calyx.

While the diagnosis of stone was certain, the possibility of a bladder neoplasm still existed. However, the following findings pointed against a bladder growth:

1. Absence of bladder irritability.
2. Normal cystogram.
3. The ready clearing of the bladder washings on irrigation.
4. Normal cystoscopic appearance of the bladder wall as far as visible.
5. The dark brown color of the blood pointed rather to an upper urinary tract lesion—not a reliable sign, however.

On December 15th, 1924, three days after transfusion, operation was performed under ethylene anaesthesia. The red blood cell count was 3,750,000 and the hemoglobin 65%. The kidney was exposed by the Mayo lumbar incision and well freed from its bed. On exposure the pelvis proved to be of the narrow intrarenal type through which it would be impossible to remove the stone by pyelotomy or pyelonephrotomy. In spite of the possibility of hemorrhage in this case a partial nephrotomy had to be done. The stone was removed from its incarceration in the dilated lower calyx. The operation was completed in less than one hour and the patient left the operating room with a pulse of 84, with apparently very little shock. The proteolysis of 5% glucose and 2% sodium bicarbonate which was instituted the day before operation was continued after operation and normal salt solution given hypodermatically. The pulse and blood pressure were maintained although considerable blood was lost in the urine during the week following operation. Spleen marrow was given in 5 gr. doses three times a day starting on the 4th day after operation. On December 22nd, 1924, 10 days after operation, the red count was 2,240,000 and hemoglobin 45%, but the bleeding was rapidly diminishing and another transfusion postponed. On December 31st, 1924, the red count was 2,560,000 and hemoglobin 55%. On January 1st, 1925, the urine was free from microscopic blood.

On January 7th, 1925, the last day in the hospital, the red count was 3,750,000 and hemoglobin 60%. This picture showed a lagging behind of hemoglobin and modified Bland's pills containing iron and arsenic were given. The urine had remained free from blood except for a few small clots.

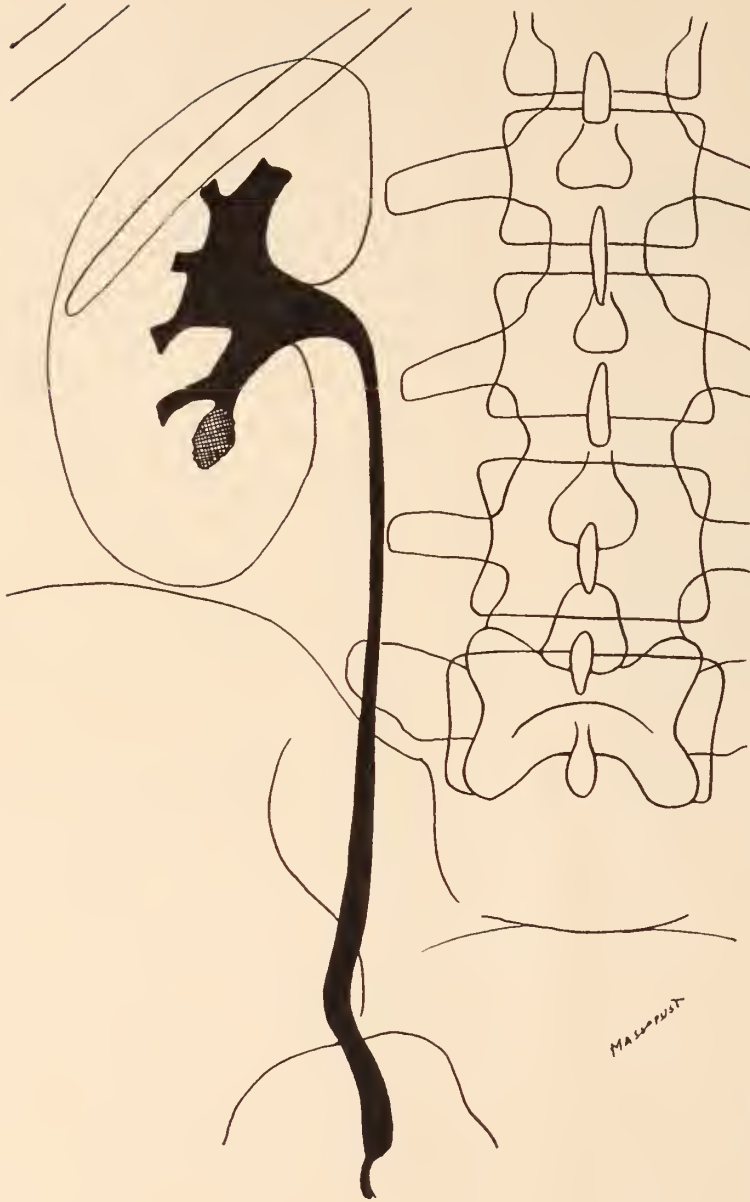


FIGURE 2. Tracing of right pyelogram showing intrarenal pelvis and stone shadow included in the filling of the lower calyx. Note stricture in the lower third of ureter with slight dilatation above.

A cystoscopy was done on this date and showed a small papilloma less than 1 cm. in diameter on the left anterior wall of the bladder. Ureteral catheterization gave the following results:

Right kidney urine: Slightly cloudy; few pus cells; few red blood cells; urea 1.2%; pthalein test—dye appeared in 7 min., 16 c.c. were excreted in 15 minutes containing 16%. The sediment stained for the tubercle bacillus was negative.

Left kidney urine: Clear, normal; urea 1.7%; pthalein test—dye appeared in 3 min., 22 c.c. were excreted in 15 minutes, containing 22%.

This demonstrates an excellent functional recovery of the operated kidney.

On January 12th, 1925, the red cell count was 4,080,000 and the hemoglobin 75%. On this date the papilloma was treated through the cystoscope with the high frequency spark; and again on January 25th, February 12th, March 5th and March 27th. On April 8th cystoscopy revealed a normal bladder.

COMMENT

The condition of a double source of hematuria is comparatively rare. From the start it was strongly suspected that the stone in the kidney was not the sole cause of the profuse hematuria. The bleeding was so extensive that it baffled two attempts at cystoscopy, this procedure on the second attempt did, however, locate a hemorrhage from the calculus right kidney. After removal of the stone the urine became entirely clear except for an occasional clot. On the patient's last day in the hospital a papilloma of the bladder was discovered. The case exemplifies the difficulty of diagnosis even with the present day urological methods in the presence of severe hemorrhage. If the papilloma had been discovered before operation it would have been treated first in an effort to check bleeding and then the stone removed later. The blood transfusion, a procedure too often omitted, changed the patient from a poor surgical risk to a good one.

A POSITION OF MAXIMUM COMFORT IN CASES OF RECTAL DISEASE

Whenever it becomes necessary to confine a patient suffering from rectal disease to bed, J. F. Montague, New York (Journal A. M. A., April 4, 1925), places him in a position which entirely eliminates undesirable features: The head pillow of the patient is removed; a pillow is inserted under the hips, and two pillows are inserted under the legs. With the various parts of the body distributed at these levels, the patient may lie flat on the back or on the abdomen, or he may turn gently from the back to either side. A rubber air ring semi-inflated may be placed under the sacrum or hips for additional comfort. The rectal area is no longer in a position to be congested by gravity, nor do the pelvic viscera exert pressure on the tender part. Edema will not occur. Furthermore, flatus escapes with ease. The total result, with all these factors of local disturbance eliminated, is comfort for the patient. Aside from this, the wound heals more rapidly, and experience indicates that convalescence is shortened.

INTRAVENOUS USE OF MERCURO- CHROME.

BY ALBERT R. TORMEY, M. D.,
Madison.

There have been many unfavorable reports about the intravenous use of mercurochrome in recent medical literature. Fearing that its use might be discarded, I feel that the good results obtained should be given as much publicity as the less fortunate cases. Following is a brief case history of a streptococcus septicemia which I think recovered through the use of mercurochrome.

Case No. 41970. A young man, age 23, was admitted to the Madison General Hospital on January 21st, 1925, complaining of earache and general weakness. On January 11th, 1925, he had a severe earache and on the next day it started to drain and continued to do so for seven days. Drainage relieved his earache, but it returned again when the discharge stopped. On his arrival at the hospital, he had a temperature of 104²; pulse 132; respiration 24, and looked very septic. The next day, a mastoidectomy was performed by Dr. R. L. Bower, and a small amount of pus obtained. His temperature continued to run from 101 to 104 and on January 28th, he developed pleurisy with effusion; the culture of which was positive for short chain streptococci. His leucocyte count during his first week in the hospital had increased from 11,000 to 37,000, which was the highest he attained.

The first positive blood culture was obtained on February 1st, and this was followed by positive cultures on February 7th, 10th and 17th. They all showed the short chained streptococcus. On February 3rd, he was given 20 c.c. of a 1% mercurochrome solution and this was repeated on February 5th. The only result obtained was quite a severe reaction.

On February 10th, an abscess over the sacrum was incised and drained and about two ounces of thin, yellowish pus removed. This was also positive for streptococcus. The temperature dropped for a few days after this, the highest point being 101.

The blood culture still being positive and the temperature reaching 102 and 103 daily; 30 c.c. of a 1% solution of mercurochrome was given on February 19th and this was followed by daily negative blood cultures and a normal temperature for six days when it started to rise again, running from 100 to 101. At this time, he developed an acute arthritis in his right elbow and in spite of the negative blood cultures, he was given another injection of 30 c.c. of mercurochrome on March 4th.

This was followed by a normal temperature for five days when it again reached 101 and on March 11th, he was again given 30 c.c. of mercurochrome. This was followed by a normal temperature until March 16th, when he had a sudden rise which persisted for two days. He had been having a persistent but unproductive cough for the past three weeks, but on March 16th, he began to expectorate considerable sputum especially in the morning. X-rays of the chest at this time were very

suspicious of broncho-pneumonia in the lower lobe of the right lung. This was confirmed by X-rays on March 26th and April 21st. The patient rapidly improved in strength and weight and following a blood transfusion on March 28th for a moderate secondary anemia, he was discharged as cured on April 1st, 1925.

Altogether, he was given five injections, totaling 130 c.c. of a 1% solution of mercurochrome.

A close watch was kept for the development of stomatitis and nephritis. He did have a very mild attack of stomatitis following the second injection, but this cleared up in a few days. Following the second and fifth injections, he had a trace of albumin and a few hyaline and granular casts. These persisted for 24 to 48 hours.

I feel sure that mercurochrome helped a great deal in this case and that it should be used repeatedly in cases of septicemia and in septic cases irrespective of positive blood findings.

PREVENTIVE MEDICINE

Edited by

W. D. STOVALL, Chairman

Section on Preventive Medicine, State Medical
Society of Wisconsin

This Section is open to all members of the State Medical Society and others who wish to discuss subjects pertaining to Public Health. Original articles, and criticisms of statements appearing in this section are earnestly solicited. Questions concerning public health procedure will be answered. Address communications to Dr. W. D. Stovall, State Laboratory of Hygiene, Madison, Wis.

SCARLET FEVER ANTITOXINS; PRESENT STATUS

By H. M. GUILFORD, M. D.,
State Board of Health.

During April a member of the State Medical Society asked to be informed regarding the present status of antitoxin for Scarlet Fever. Believing that the answer will be of interest to our readers we publish the answer herewith.

—The Editor.

"Your letter of April 13th to Mr. J. G. Crownhart has been referred to us for reply. In this letter you ask for the present status of the Dick Serum.

"At the present time, the Dick serum or antitoxin can be obtained from the U. S. Standard Products Company, Woodworth, Wisconsin. Their literature of recent date advertises that their product for treatment is put up in a package containing one therapeutic dose. In the March 14, 1925, number of the Journal of the American Medical Association Drs. Dick write upon the 'Therapeutic Results With Concentrated Scarlet Fever Antitoxin.' In this article they advise one therapeutic dose of antitoxin intramuscularly in

moderately severe cases. If enough antitoxin has been given the rash will be definitely faded in twenty-four hours. In severe cases with marked toxemia or septic complications they recommend two doses.

"Drs. Dick speak of a therapeutic dose as one which neutralizes '20,000 skin test doses' of toxin. Patients with a history of previous administration of horse serum were given small desensitizing doses before the therapeutic dose was injected. As in diphtheria antitoxin, scarlet fever antitoxin should be used as early as possible in the disease to obtain results.

"Besides the Dick antitoxin there is another curative serum known as the Dochez antitoxin. At the present time it is produced by Eli Lilly & Company of Indianapolis. The literature of this firm states that it is sold in 20 c.c. vials, unconcentrated, and 10 c.c. vials concentrated. In the matter of treatment they advise the unconcentrated form and place the dosage as 20 to 40 c.c. intramuscularly. They state that in unusually severe cases, seen late, it may be used intravenously. Their literature also informs us that 1 c.c. of the unconcentrated form will neutralize 10,000 skin doses of toxin and 1 c.c. of concentrated will neutralize 20,000.

THE DIFFERENCE IN SERUMS

"The Dick antitoxin is produced by the repeated injection into horses of the toxin of the scarlet fever streptococcus isolated after the manner recommended by the Dicks. It is purely a concentrated horse serum containing the scarlet fever antitoxin.

"The Dochez antitoxin is produced by injecting a liquefied agar into the cellular tissues of the neck of a horse and thereafter introducing the sediment of the living cultures of certain scarlet fever streptococci into this agar medium; this being done to protect the streptococci from the phagocytes and allow the absorption of the toxin through the agar. Claimants for this form of serum intimate that bacterial products other than antitoxin may also enter the constituents of the finished serum although it is largely antitoxic in its nature.

INDICATIONS FOR USE

"It should be definitely understood that the rash, fever and toxemia of scarlet fever are produced by the toxins of the scarlet fever streptococcus. The serums recommended for treatment

are intended to neutralize this toxin, cause the disappearance of the rash, drop the fever and dispense with the toxemia. The indications for use, therefore, are wholly in cases presenting these symptoms and of sufficient severity to justify the giving of antitoxin. The results from the administration of these curative serums have been reported to be striking in many instances. We may state, however, that verbal and hearsay reports to the State Department of Health indicate that there has been pronounced serum sickness following the administration of these biologicals, and at the present time some physicians are somewhat discouraged over the prospect. Just what product has been blamed has not so far been revealed to us. The well known effects of horse serum, so commonly experienced before the days of the concentration of diphtheria antitoxin, should be borne in mind.

"The direct effect upon the scarlet fever organism itself by these antitoxins is said to be nil. As to the indirect effect, Drs. Dick in the article heretofore mentioned claim that the early use of the antitoxin is beneficial upon ensuing complications by ridding the body of hampering toxemia. He cites cases in his article.

IMMEDIATE OR PASSIVE PROPHYLAXIS

"In addition to the curative serum, the U. S. Standard Products Company, Woodworth, Wisconsin, has placed on the market a package containing one prophylactic dose of scarlet fever antitoxin of the Dick method of preparation. This is intended for passive immunization in the same manner that diphtheria antitoxin is used.

"Eli Lilly & Company states that 5 c.c. of the concentrated serum, which they offer for sale in 10 c.c. vials, as heretofore mentioned, can be used for passive or immediate immunization. It is well known that all passive immunities are of short duration.

"It must be borne in mind that the causative agent in scarlet fever remains in the human throat oftentimes for some weeks. Scarlet fever is commonly regarded as communicable for four weeks and oftentimes six or eight weeks, or even more. The probability of contact after the effects of passive immunization have passed is called to your attention. Notwithstanding these facts there may be indications for its use as for instance thorough exposure to severe cases or some other possible indications.

"In the American Journal of Public Health for

December, 1924, Drs. Dick write as follows: 'In case of definite exposure, skin tests are made as soon as possible and at the same time a culture of the throat is made on blood agar plates. If the skin test is negative, nothing more is done. In those with positive skin tests and no hemolytic streptococcus present, active immunization with toxin is carried out. If streptococci are present, convalescent serum is used, if obtainable, in order to avoid sensitization to horse serum. If not obtainable, concentrated scarlet fever antitoxin is used.'

ACTIVE PROPHYLAXIS

"Active prophylaxis has been recommended for sometime past by the Dicks; that is, a long time immunity produced by a solution of the toxin obtained from the culture of the scarlet fever streptococcus. Originally three doses were recommended, given one a week, namely what is termed a 100, 250 and a 500 skin dose. These doses are a multiple of the amount of toxin required to produce the Dick test. Lately higher doses are recommended. Too large a dose will produce the rash and symptoms of scarlet fever, which, however, subside after elimination.

"In the March 14, 1925, Journal of the American Medical Association, O. B. Nesbit of Chicago writes he produced a 65 per cent immunity upon re-tests after three doses in those originally non-immune to the Dick test. Other reports to the State Board of Health are to the effect that active prophylaxis does not produce immunity for more than a single season. In the opinion of the undersigned, active prophylaxis might profitably be used in institutions during an outbreak where the disease is not likely to subside for some months or upon prospective exposures, after a child returns from a hospital, or upon children sent away from home who may later return.

DICK TEST

"The Dick test is a minute quantity of a solution of the toxin introduced intradermally after the manner of the Schick test. It is read in twenty-four hours. Its use seems to be successful in determining immunes from non-immunes.

Very truly yours,

H. M. GULFORD,

Director, Bureau of Communicable Diseases,
and Assistant Collaborating Epidemiologist,
U. S. Public Health Service."

PUBLIC HEALTH NOTES

FROM THE
STATE BOARD OF HEALTH

When it is necessary for a local health officer to make an investigation of illness on account of the nature of the ailment not being known or for fear that cases of communicable disease are being covered up, the expense incurred must be paid by the town, village or city upon the order of the local board of health.

Letter to village clerk: "You are correct in your interpretation of the law which prohibits the transportation of a person who has a dangerous communicable disease from one town, village or city to another without the written permission of the health officer of the district where the patient now resides and also of the health officer of the district to which the patient is to be transported."

"Your action in excluding from school a child suspected of having measles is to be commended," a teacher was told. "It is the duty of the school authorities to exclude at once any child who is suspected of having a dangerous communicable disease or who appears to be ill in any way. It is not necessary to wait until a physician has seen the case and until it has been reported to the health officer. This may be necessary in order to determine definitely the nature of the ailment, but if the child having such disease is permitted to remain in school, many innocent children will be exposed. * * * If, for any reason, a physician called in on the case neglects or refuses to make a diagnosis, the school authorities can employ a physician to examine the child and determine the nature of the ailment."

The advice was given that a teacher having eczema on the hands is not to be considered a menace to pupils, since the ailment is not communicable.

There is no law, it was explained, as to who shall examine school children for physical defects. It is generally assumed that such examinations will be made by a physician or registered nurse. The physician is held responsible for the thoroughness or efficiency of the examinations.

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ORGANIZED 1841

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LIST OF EXECUTIVE OFFICERS OF COUNTY MEDICAL SOCIETIES

Table with 3 columns: County, President, Secretary. Lists medical society officers for various Wisconsin counties including Ashland, Barron, Brown, Calumet, Chippewa, Clark, Columbia, Crawford, Dane, Dodge, Door, Douglas, Eau Claire, Fond du Lac, Grant, Green, Green Lake, Iowa, Jefferson, Juneau, Kenosha, La Crosse, La Fayette, Langlade, Lincoln, Manitowoc, Marathon, Marinette, Milwaukee, Monroe, Oconto, Oneida, Outagamie, Pierce, Portage, Price-Taylor, Racine, Richland, Rock, Rusk, Sauk, Shawano, Sheboygan, St. Croix, Trempealeau, Vernon, Walworth, Washington, Waukesha, Waupaca, Winnebago, and Wood.

SOCIETY PROCEEDINGS

ROENTGENOLOGY

A special spring meeting of the Roentgenological Section of the State Medical Society was held on April 30th at Madison. The following program was presented:

Morning Session at Science Hall

1. Opening remarks of the Chairman—Manly J. Sandborn, M. D.
2. Report of the Secretary—C. W. Geyer, M. D.
3. Discussion of organization and future plans for the section.
4. How members of the section can have a special piece of apparatus made. Visit engineering shop. Medical School—C. R. Bardeen, M. D.
5. Demonstration of the use of X-rays in teaching physiology—Walter J. Meek, M. D.
6. Demonstration of the use of X-rays in teaching anatomy—Walter E. Sullivan, M. D.
7. Visit to X-ray laboratories in various hospitals and clinics.

Afternoon Session at Wisconsin General Hospital

1. Special technique in cardiac roentgenology—J. A. Eyster, M. D.
2. Special technique in pulmonary roentgenology—W. S. Middleton, M. D.
3. Special technique in renal roentgenology—B. H. Hager, M. D.
4. Special technique in gastro-enterology—J. N. Sisk, M. D.
5. Demonstration of films. Those attending are urged to bring films of special interest.

Automobile Trip to Farwells Point, 4 P. M.

Inspection of X-ray laboratory at the Soldiers' Memorial Hospital.

Demonstration of special technique of cranial roentgenology—Fred J. Hodges, R. T.

Dinner at Madison Club

Address—Common misconceptions in radio therapy—A. V. Desjardins, M. D., Rochester, Minn.

BROWN-KEWAUNEE

Owing to the fact that two meetings are to be held in May, there was no meeting of the Brown-Kewaunee County Medical Society in April. In addition to the regular May meeting, the members will be guests of the Green Bay Academy of Medicine at its annual meeting at Hotel Northland, May 13.

COLUMBIA

Dr. O. H. Foerster, head of the department of dermatology of Marquette University, Milwaukee, held an instructive clinic for the Columbia County Medical Society at St. Savior's Hospital, Portage, on March 25th. Doctor Foerster presented many interesting cases and supplemented the clinic with lantern slides accompanied by a lecture.

DANE

The members of the Dane County Medical Society met at a dinner meeting on April 22nd. The following program was presented: "The Intravenous Use of Mer-

urochrome—Two Case Reports," by Dr. Albert R. Tormey; "The Value of Clinical Laboratory Examinations," by Dr. Robert McC. Halbach; "Recent Developments in the Treatment and Prevention of Scarlet Fever," by Dr. W. D. Stovall.

EAU CLAIRE

We publish herewith a summary of the activities of the Eau Claire County Medical Society during the year 1924. The report was sent in by its secretary, Dr. H. M. Stang, Eau Claire.

Two important changes were made during the year. The first was a determination to hold meetings throughout the summer in order to accommodate the doctors from the surrounding vicinity, who are unable to attend the meetings during the winter months. The second was the union of the Eau Claire and Dunn-Pepin Counties under the name of "The Eau Claire and Associated Counties Medical Society."

Last year the Eau Claire County Medical Society had a membership of forty-five. It had an average attendance of members throughout the year of 29.8. Eleven regular meetings were held and the following papers were given:

Jan. 28, 1924. Dr. Ira Sisk, Jackson Clinic, Madison, Wisconsin: "Some Phases of Modern Urological Diagnosis," with lantern slides; Dr. R. T. Cooksey, Jackson Clinic, Madison, Wisconsin: "Block Anesthesia in Major Surgical Conditions."

Feb. 25, 1924. Dr. E. M. Hammes, Associate Professor of Nervous and Mental Diseases, University of Minnesota: "Lethargy Encephalitis," with lantern slides.

Mar. 31, 1924. Dr. Carl E. Larson, St. Paul, Minn.: "Acute and Chronic Ear Infections."

April 28, 1924. Dr. C. C. Chatterton, Former Associate of Dr. Gillette, St. Paul: "Some of the Usual and Common Deformities of the Feet with Simple Methods of Treating."

May 19, 1924. Dr. David Berkman, Mayo Clinic: "Complications and Surgical Indications of Gastric and Duodenal Ulcers;" Dr. John L. Crenshaw, Department of Urology, Mayo Clinic: "Diverticula of the Bladder," with lantern slides.

June 30, 1924. Mr. Ben C. Phillips, Special Agent of the U. S. and Fidelity Guaranty Company: "Relation of Physicians and Insurance Companies in Industrial cases;" Dr. Harold E. Richardson, Associate of Dr. Chas. Lyman Green of St. Paul: "The Early Recognition and Treatment of Cardiac Diseases;" Dr. Frederic E. B. Foley, Miller Clinic, St. Paul: "The Upper Urinary Tract, Obstructions, Diagnosis and Treatment," with lantern slides.

July 28, 1924. Dr. H. M. Connor, Mayo Clinic: "Diagnosis of Conditions Associated with Spleno-Megaly;" Dr. M. S. Henderson, Mayo Clinic: "Fractures," with lantern slides.

Aug. 28, 1924. Dr. Harold E. Marsh, Jackson Clinic, Madison: "Antitoxin Treatment of Scarlet Fever;" Dr. F. E. Chandler, Chicago, Ill., Instructor in the Northwestern Medical College: "Some Deformities of the Fifth Lumbar Vertebra and their Treatment."

Sept., 1924. The September meeting was not held due to the fact that the Tenth District meeting was held in Eau Claire Oct. 8, 1924.

Oct. 26, 1924. Dr. O. S. Wyatt, Associate of Dr. Corbett, Minneapolis: "Spina Bifida," with lantern slides; Dr. Everett K. Geer, Pokegama Sanatorium: "Artificial Pneumo-Thorax for Pulmonary Tuberculosis."

Nov., 1924. Symposium: "Gastric Uleer," by Drs. McVicker and Balfour of the Mayo Clinic.

Dec., 1924. The December meeting was held in conjunction with the Hospital Staff. No papers were given. Election of Officers and Discussion of cases was taken up.

On the whole the Eau Claire County Society has been very active during the year and programs of this nature have been held throughout the last three years. The interest of the local and surrounding doctors in the meetings is increasing and there are only two doctors in Eau Claire County who do not belong to the society at the present time.

FOND DU LAC

Dr. T. A. Hardgrove spoke on "The Role of Calcium in Health and Disease" at the regular monthly dinner-meeting of the Fond du Lac County Medical Society at Hotel Retlaw on April 8th. A discussion of the paper followed by Dr. P. J. Calvy.

MARINETTE-FLORENCE

The Marinette-Florence County Medical Society met on April 10th. The program was conducted by three eye, ear, nose and throat specialists who presented very interesting papers. Dr. J. V. May, Marinette, spoke on "Disorders of the Tear Apparatus;" Dr. W. S. Jones, Menominee, Mich., on "Headaches of Nasal Origin;" and Dr. C. R. Ellwood, Menominee, Mich., on "Glaucoma." The meeting was well attended.

The members of the society met again on April 29th at the Old English Grill, Marinette, where a dinner was enjoyed by the twenty-two doctors present. Dr. John R. Minahan of Green Bay presented an interesting paper on goiter.

MILWAUKEE

The regular monthly meeting of the Milwaukee County Medical Society was held at Hotel Pfister on April 10th. The following program was presented:

"A Case of Osteomalacia," by Dr. John M. Bffel; "A Review of the Autopsy Findings in 400 Cases of Sudden Death," by Dr. Joseph Lettenberger; "The Two Flap Low Caesarean Section," by Dr. Roland Cron; "Pneumoconiosis, Inorganic Dust as a Factor in Pulmonary Disease," by Dr. Charles Ide.

RACINE

The members of the Racine County Medical Society met in the classroom at St. Mary's Hospital on April 9th. Dr. Francis D. Murphy, Milwaukee, gave an address on the subject of "Diagnosis and Treatment of Nephritis." The lecture was illustrated with stereopticon slides.

MILWAUKEE ACADEMY OF MEDICINE

Dr. John de J. Pemberton of the Mayo clinic, Rochester, Minn., spoke at a meeting of the Academy of Medicine on April 14th at Hotel Pfister. Other speakers on the program were Drs. Curtis Evans, Arthur J. Patek and William Thalheimer.

Members of the Academy of Medicine met again on April 28th at the Health Service Building, Milwaukee. The following program was presented: "Cystin Nephrolithiasis," by Walter M. Kearns; "Physiotherapy in Nerve Injuries," John E. Armitage; "Diagnosis and Treatment of Ulcerative Colitis," Sidney A. Porter, Chicago.

MILWAUKEE NEURO-PSYCHIATRIC

The members of the Milwaukee Neuro-Psychiatric Society met at a dinner meeting at the Milwaukee Hospital for Insane, Wauwatosa, on April 23rd. Dr. A. F. Young gave a paper on "Milwaukee County Hospital for Mental Diseases"; Dr. William A. Eshelman spoke on "Cerebral Paralysis of the Insane"; Dr. A. Trevisano on "Schizophrenia with Neurosyphilis"; Dr. F. L. Grover on "Paranoia".

MILWAUKEE OTO-OPHTHALMIC SOCIETY

The April meeting of the Milwaukee Oto-Ophthalmic Society was held at the University Club, Milwaukee, April 21st, following a dinner. The program was as follows: "Determination of Refractive Errors by Means of Retinoscopy with Cylinders and Cross Cylinders Test", Dr. Edward Ryan; "Determination of Refractive Error by Means of the Wheel Spoke Chart", Dr. H. Haessler; "Diagnosis of Muscular Imbalances and Their Relation to Refractive Errors", Dr. N. M. Black.

NEWS ITEMS AND PERSONALS

Dr. O. H. Foerster of Milwaukee conducted a clinic on skin diseases at St. Elizabeth hospital on the afternoon of April 21st for the Outagamie County Medical Society. In the evening of that day he presented a paper before the society.

Dr. A. O. Shaw was elected president, Dr. A. N. Kamm vice-president and Dr. R. L. Gilman secretary of the Ashland General Hospital staff at a luncheon on April 11th. Dr. A. P. Andrus was the retiring president.

Milwankeans who have thus far decided to join the party on the Tri-State Tour are: Drs. G. V. I. Brown, Chester M. Echols, F. A. Stratton, Dexter H. Witte, C. G. Johnson, R. G. Sayle and E. O. Lademan.

An ounce bottle of narcotics was stolen from the office of Dr. R. J. Muenzer, Milwaukee, recently. It is believed that the intruder was a dope addict.

Physicians on the staff of Theda Clark hospital, Neenah, met on March 27th in regular session. Routine matters were transacted followed by a discussion of cases and a paper by Dr. D. J. Ryan on "Lung Diseases."

Watertown's first exclusive office building was occupied on April 1st by Drs. L. H. Nowack and A. C. Nickels of that city. The ground floor was occupied by Doctor Nowack while the second floor had been arranged into office suites for Doctor Nickels and a dentist, Dr. Herbert Radtke.

Several Madison physicians and their wives will leave that city on May 17th to join the members of the clinic tour through Europe. Those who will join the party are: Dr. and Mrs. W. T. Lindsay, Dr. and Mrs. R. T. Cooksey, Dr. and Mrs. Joseph Dean, Dr. and Mrs. Thomas W. Tormey and Dr. Sarah I. Morris.

A free clinic for crippled children was conducted in the court house at Monroe on April 2nd by Dr. F. J. Gacnsen, orthopedic specialist, Milwaukee, under the auspices of the child welfare committee of the Kiwanis Club.

Dr. Meredith F. Campbell Madison, has been appointed to the attending surgical staff of Bellevue hospital, New York City, in the department of urology. He is also an instructor in urology in the New York university and Bellevue hospital medical school. Doctor Campbell is a graduate of the University of Wisconsin with the class of 1916, and completed his medical course at Columbia medical school.

Drs. G. A. and L. W. Hipke have removed from the Wells Building and are now located at 800 Goldsmith Bldg., Milwaukee.

Dr. T. L. Harrington, Milwaukee, who conducted a free chest clinic at Stoughton April 13th and 14th, spoke to the senior and junior high school students on the work of the Wisconsin Anti-Tuberculosis Association.

Dr. E. V. Brumbaugh, former health commissioner of Madison, has accepted the position as deputy health commissioner of Milwaukee under Dr. J. P. Koehler. He succeeds Dr. Ira F. Thompson, resigned. Doctor Brumbaugh was previously connected with the Milwaukee health department.

Dr. H. A. Pfeifer is now occupying an office suite at 514 Wisconsin Theatre Building, Milwaukee. He was formerly located at 1240 Wells Building.

Dr. O. E. Werner, Oshkosh, recently convicted on a charge of using instruments with intent to commit an illegal operation, was sentenced in circuit court April 24th to a term of nine months in the county workhouse at hard labor and a fine of \$500, with an additional term not to exceed six months if the fine is not paid. The sentence of the court also revoked his license to practice medicine in the state of Wisconsin.

Dr. F. M. Harris, secretary of the Brown-Kewaunee County Medical Society, who for the last four years has been associated with Drs. R. E. and J. R. Minahan, Green Bay, has recently opened an office at 112 North Washington St., where he will occupy four rooms. These

will include a waiting room, a consultation room, an operating and X-ray room, and a laboratory and dark-room for developing X-ray films.

Dr. S. G. Secger and C. H. Stoddard have been selected by the Milwaukee County Medical Society to represent it on the advisory committee for the Milwaukee Health Department.

The Madison board of health has selected Dr. W. D. Stovall, Dr. W. F. Lorenz and Dr. Joseph Dean as an advisory committee to aid in the selection of a new city health officer for the city of Madison to succeed Dr. E. V. Brumbaugh, now of Milwaukee.

MARRIAGES

Dr. Emil T. Lobedan, Milwaukee, chief of the child welfare work of the health department, and Miss Anna Szablewski, a welfare nurse, were married on April 22nd.

DEATHS

Dr. A. H. Voigt, Oostburg, died on April 21st after a lengthy illness due to a run-down condition because of a heavy practice. Dr. Voigt was born in Newburg, Ozaukee County, in 1873. He graduated from Marquette University, Milwaukee, in 1911. After practicing in Sheboygan for a year, he removed to Oostburg where he served until his illness. He is survived by his wife, a son and a daughter.

Doctor Voigt was a member of the Sheboygan County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

Dr. C. M. Ustick, formerly of Milwaukee, died at Long Beach, Calif., on April 18th. Two years ago he suffered a stroke of paralysis and moved to California to improve his health. He is survived by his wife and two sons.

Dr. C. P. Riley, Oxford, died suddenly at the home of his son April 23rd. Dr. Riley was a former resident of Baraboo, coming from Prairie du Sac more than thirty years ago and formed a partnership with the late Dr. J. E. English. About ten years ago he removed to Oxford, where he has been in active practice since that time.

Dr. S. L. Pickett, Bayfield, died very suddenly on March 30th, while at his desk in his office. Death was due to heart failure. Dr. Pickett was born December 24, 1861, and for the past fifteen years had practiced at Bayfield. He is survived by his wife, two daughters and a son.

Dr. Pickett was a member of the St. Croix County Medical Society, the State Medical Society of Wisconsin and the American Medical Association.

Dr. D. W. Harrington, Milwaukee, passed away at his home on April 2nd. He had been confined only a few days with pneumonia. Dr. Harrington was born in Waupaca County and attended Columbia College and Leland Stanford University. He practiced in Oshkosh for many years before coming to Milwaukee, where he was associated with his brother, Dr. T. L. Harrington. Surviving him are his wife, two brothers and a sister.

SOCIETY RECORDS**New Members**

Hudson, Robert J., St. Mary's Hospital, Madison.

Schmitz, Wm. C., Manitowoc.

Cleary, B. L., Edgerton, Wis.

McKillip, W. J., 445 Milwaukee St., Milwaukee.

Changes in Address

Morgenroth, F. C., 230 Grand Ave., Milwaukee—4166 Plankinton Bldg., Milwaukee.

Jacobs, S. A., 805 Walnut St., Milwaukee—43 West 87th St., New York City.

Erdlitz, F. J., Brillion—Peshtigo.

Rosenberger, A. L., Riverside Sanitarium, Milwaukee—Wells Bldg., Milwaukee.

Hipke, G. A., 1240 Wells Bldg., Milwaukee—800 Goldsmith Bldg., Milwaukee.

Pfeifer, H. A., 1240 Wells Bldg., Milwaukee—514 Wisconsin Theatre Bldg., Milwaukee.

Thompson, I. F., City Hall, Milwaukee—314 East Fayette St., Syracuse, N. Y.

Washburn, W. H., 1240 Wells Bldg., Milwaukee—616-20 Goldsmith Bldg., Milwaukee.

Brady, D. L., Cuba City—Mineral Point.

Harris, F. M., 608 Minahan Bldg., Green Bay—112 N. Washington St., Green Bay.

CORRESPONDENCE

Wisconsin Medical Journal,
Gentlemen:

Will you kindly publish the subjoined notes, and oblige
Very truly yours,

H. W. LOEB,

Secretary.

AMERICAN BOARD OF OTOLARYNGOLOGY

The next examination conducted by the American Board of Otolaryngology will be held at the Ambassador Hotel, Atlantic City, on Tuesday, May 26th at 9 A. M.

Application blanks may be obtained from Dr. H. W. Loeb, Secretary, 1402 South Grand Boulevard, St. Louis, Missouri.

WISCONSIN LICENSE REQUIRED

Wisconsin physicians may not employ as "Locum Tenens" a physician who is not licensed in Wisconsin. This ruling was given in April by Dr. Robert E. Flynn, Secretary of the State Board of Medical Examiners. The question arose when a member of the Society desired to secure the services of a physician from another state to take over his practice while the member attended the Tri-State Tour.

"Our State Law," declared Doctor Flynn, "Chapter 147.02, Section 1, provides that every man practicing in our state must be duly licensed and the Board has ever ruled that no temporary permits can be granted under this law, so that if a physician desires an assistant during his absence he must employ one who is properly licensed in our state."

SPECIAL TRAIN TO A. M. A. MEETING ON PENNSYLVANIA ROAD

For the benefit of those who will attend the Annual Meeting of the American Medical Association and affiliated societies to be held in Atlantic City, May 22-29, it is important that attention be directed to the special train arrangements which are being made for our accommodation, as follows:

Train will be operated via the Pennsylvania Railroad and will leave Chicago at 8:00 p. m. (Standard Time) Sunday, May 24th, and arrive in Atlantic City at 5:25 p. m. (Standard Time) Monday, May 25th.

Train will be composed of a club car, latest type Pullman equipment, including observation car with dining car for necessary meals enroute.

While it is anticipated there will be a sufficient volume of business to justify the operation of special train, yet on the other hand if such should not be the case, extra cars will be handled on the regular train leaving at 8:10 p. m. same date, upon which there is an extra fare charge of \$6.00.

The railroads have granted us a reduced rate of one and one-half fare on the Certificate Plan. Under this arrangement, those who attend must purchase a one-way ticket May 20 to 26th and secure from the ticket agent a certificate account this convention. In case 250 or more such certificates are presented to the Secretary at the convention 23rd-29th and honored for return ticket at one-third regular fare to and including June 2nd. Members should not fail to present their certificates at the time of registration.

For further detailed information, reservations, etc., it is suggested you write J. M. Neafus, District Passenger Representative, Pennsylvania Railroad, Room 1410, First Wisconsin National Bank Bldg., Milwaukee, Wis.

X-RAY IN FRACTURES

A Wisconsin physician was recently sued for malpractice, mainly on the basis of the alleged fact that he took but one x-ray plate following treatment of a fracture. The plaintiff alleged that the one plate was taken from an angle which apparently showed apposition, which, in fact, did not exist. It was declared that the physician should have taken two plates from different angles. The Supreme Court affirmed the plaintiff's contention.

Basic Science Bill 27A Passed by Assembly, 74 to 5; Senate Action Expected This Month

Editor's Note: This article was written on May 1st. Changes in the status of any bills mentioned will be noted in legislative bulletins.

The Moul-Boldt Basic Science Bill, 27-A, was passed by the Wisconsin Assembly Wednesday night, April 22nd, by a vote of 74 to 5. On motion of Assemblyman Vincent, Kenosha County, the measure was immediately messaged to the Senate. In the Senate the bill was referred to the Committee on Education and Public Welfare where it will probably have a hearing the first week in May.

The vote on the Basic Science Bill, 27-A, in the Assembly follows:

To pass the bill: Barber, Brooks, Busse, Caldwell, Cieszynski, Cody, Coleman, Conway, Cushman, Dettlinger, Diring, Dorwin, Duncan, Eber, Edwards, Engel, Frederick, G., Frederich, F. A., Glass, Goodman, Grimstad, Hall, Hanson, Hilker, Hillmann, Hinkley, Hoffman, Holly, Hutchison, Ingalls, Jensen, Johnson, E. H., Johnson, R. B., Kamper, Kersten, Koehnig, Carl, Koehnigs, M., Krause, Laffey, Larson, J. L., Larson, Nels., McDowell, Mathiowetz, Meggers, Mentink, Millar, J. D., Miller, A. M., Minier, Moul, Mueller, F. A., Olsen, O. C., Olson, W., Pahl, Perry, Petersen, Prescott, Price, Raihle, Ruffing, Saugen, Schmidt, Schultz, Sellers, Shearer, Slack, Smith, H. H., Sonnemann, Staab, Thorp, Vincent, Warden, Weber, Wood and Mr. Speaker—74.

To kill the bill: Gwidt, Huckstead, Nelson, Swanson and Zittlow—5.

Absent or not voting—Beverdorf, Blanchard, Davies, Dieringer, Ellenbecker, Geraldson, Halverson, Kiesner, Lawson, Leicht, Moseley, Naumann, Royce, Smith, A. E., Stokes, Thompson, H. F., Thompson, J. C., Trembath, Tuffley and Walsh—20.

The bill as passed is essentially the same as introduced. Three amendments were adopted before final passage. The first made more clear the endeavor to have the board non-partisan by specifying that it should be composed of lay educators. The second amendment exempted dentists and optometrists from the provisions of the bill. The third amendment provided that the requirement of high school education as a prerequisite should not apply for applicants who were bona fide students in any school of the healing art on April 1st, 1925.

Following recommendation of the Senate Committee on Education and Public Welfare, the bill will come up in the Senate for advancement. If

advanced, the bill will be taken up two days later on the question of concurrence.

PERMIT BILL ADVANCED

Without a record vote the Assembly advanced Bill 466-A which provides for combining the three separate permits for physicians in the State Prohibition Enforcement Act into one. It also provides for combining into one permit, the two separate permits for druggists. This would automatically reduce the fees to the one fee of \$10.00.

An amendment proposed by the Committee on Excise and Fees to increase the one fee from \$10.00 to \$15.00 was rejected by the Assembly, 50 to 33. The motion to reject the amendment was made by Assemblyman George W. Meggers of Clintonville.

"I move the rejection of amendment 1-A to Bill 466-A," said Mr. Meggers. "I make this motion for the reason that the amendment destroys one of the two purposes of the bill itself.

"Its first purpose is to wipe out an unnecessary duplication of paperwork in the office of the Commission. It would accomplish this by combining the three separate permits for physicians into one. It would combine the two separate permits for druggists into one. This would make our state permits correspond to the federal permits.

"The second purpose of the bill which would be destroyed by this amendment is the reduction of the present excessive cost of these permits. At the present time the state receives ten times as much from these permits as it costs to administer the law. The bill seeks to reduce this excessive cost by about thirty per cent. The federal government makes no charge whatever for these permits.

"This second purpose of the bill would be destroyed if Amendment 1-A were to be adopted. This amendment would increase the cost of the one permit from \$10 to \$15 and while it is true that for that sum a physician or druggist might use any of his privileges under the state act, it is also true that around fifty per cent use but one of these privileges at the present time. This would mean that for these men the cost would be increased from \$10 to \$15.

"Permit fees should be sufficient to cover the cost of efficient administration of that section of the act. They should not be so excessive as to become a form of taxation levied upon but two

classes of men. I hope the amendment will be rejected."

The vote by which the \$15.00 amendment was defeated follows:

To kill the amendment: Barber, Busse, Cieszynski, Coleman, Conway, Dettinger, Diring, Duncan, Eber, Ellenbecker, Engel, Fredrich, F. A., Geraldson, Glass, Gwidt, Halverson, Hilker, Hillmann, Hoffman, Jensen, Kiesner, Laffey, Larson, J. L., Leicht, McDowell, Meggers, Mentink, Millar, J. D., Miller, A. M., Moul, Mueller, F. A., Olsen, O. C., Petersen, Prescott, Price, Royce, Ruffing, Saugen, Schmidt, Sellers, Slack, Sonnemann, Staab, Thompson, J. C., Thorp, Tuffley, Warden, Weber, Zittlow, and Mr. Speaker (Mr. Satchjen)—50.

To adopt the amendment: Blanchard, Brooks, Caldwell, Cody, Cushman, Davies, Dorwin, Edwards, Frederick, G. Goodman, Grimstad, Hanson, Hinkley, Huckstead, Hutchison, Ingalls, Johnson, E. H., Kamper, Koenig, Carl, Larson, Nels, Mathiowetz, Minier, Moseley, Nelson, Olson, W., Pahl, Perry, Raille, Schultz, Shearer, Smith, A. E., Swanson and Vincent—33.

Absent: Beversdorf, Dieringer, Hall, Holly, Johnson, R. B., Kersten, Koenigs, M., Krause, Lawson, Naumann, Smith, H. H., Stokes, Trembath, Walsh and Wood—15.

OPTOMETRY BILL AMENDED

A measure that would effect the raising of standards for optometrists in this state has been advanced by the Assembly following favorable report by the Joint Committee on Finance. The committee reported an amendment which included a clause making certain that physicians and surgeons were clearly exempted from provisions of the bill. The amendment was adopted by the Assembly and the bill advanced.

SUBVENTION BILL ADVANCED

The Senate during April passed a Senate bill providing for state aid to county sanatoria patients at a rate of \$7.00 per week per patient. This bill, fostered by the county sanatoria and the Wisconsin Anti-Tuberculosis Association, now goes to the Assembly on a question of concurrence. At the present time the state aid is about \$4.50 per patient, per week.

ADVANCE CHIRO BILL

Without a record vote the Assembly on April 28th advanced to third reading Bill 322-A by Assemblyman Minier which provides for the examination and licensing of chiropractors who pass the proposed Basic Science Board. This measure is inoperable without passage of the Basic Science Bill 27-A and the Committee on Public Policy and Legislation does not feel impelled to oppose this measure.

The bill as adopted was first amended, 45 to 30, to strike out the definition of chiropractic as given in the bill. This was asked by representatives of the Wisconsin Osteopathic Association who claimed that the definition of chiropractic as in the bill was the original definition of osteopathy.

A second amendment by Mr. Coleman, Milwaukee, to give chiropractors the right to call themselves "Doctor" was defeated without a record vote. The bill will be up for final passage in the Assembly the first week in May after which it must go to the Senate.

Cracker Jack Company Modifies Distribution of Small Prizes in Accordance with Wisconsin Recommendations

The hazard of children swallowing two types of prizes included in boxes of Cracker Jack will be largely eliminated as a result of recommendations of the Committee on Public Policy and Legislation of the State Medical Society of Wisconsin. This announcement is made possible through the generous cooperation of the manufacturers who have made the changes indicated by a Wisconsin survey of the danger of certain small prizes being swallowed either unknowingly or accidentally because of the nature of the prize. The survey was suggested by Dr. W. E. Grove, Milwaukee.

Two changes have been made which will be adopted for the entire national distribution of Cracker Jack. These are:

1. Elimination as a prize of a small disc

whistle which is blown by placing it between the teeth and lips.

2. All small cast prizes that might be taken in the mouth with the candy product unknowingly will now be wrapped in paper containers to overcome any such possibility.

"We appreciate," declared Mr. E. W. Wegner, Secretary of the Cracker Jack Company, "the broadminded spirit in which this matter has been considered and we assure you that we want to do everything we can to cooperate with you to avoid any possible danger to the public, particularly to children who are large purchasers of our product.

"We are pleased to say that in compliance with your recommendations the use of the round tin whistle has been discontinued by us and no fur-

ther purchases of this article will be made. We have issued orders that any small metal toys that may be used in the Cracker Jack package must be enclosed in an envelope or similar paper container to overcome any possibility of such toys being accidentally swallowed with the Cracker Jack.

"We wish to thank you and the members of your Society for bringing this matter to our attention, thus helping us to protect the many friends of Cracker Jack in Wisconsin and elsewhere. We assure you of our hearty cooperation and shall always welcome any suggestions that you may have to offer."

"CRACKERJACK"

A source of interest to the child who buys "Crackerjack" is a little trinket conveyed in each box, a dog, an elephant, or what not—and that, in a way, was bad. Because frequently the child didn't distinguish between the confection and the trophy, and often it happened that baby ate the elephant, or the dog. This alarmed parents and made work for the doctor, some of whom reported

cases to the State Medical Society, of which Mr. J. G. Crownhart, son of Mr. Justice Crownhart of the Supreme Court, is secretary.

As a result there were conferences between the medical society officials and the manufacturers of Crackerjack, as a result of which trinkets constituting Crackerjack prizes will be wrapped in tissue and so packed that the young customer will be obliged to discover its character before he submits Bruno to the process of mastication. It is interesting to note the comment of the medical society that the "manufacturers gave generous cooperation" in the matter.

This may be regarded as an encroachment upon personal liberty, the champions of which are apt to feel that when a child has fairly won a Crackerjack prize he has a right to consume it if that suits his epicurean taste. Just the same, the incident is an example of what we get out of medical societies that function, and of what could be achieved were the right approaches made in the way of cooperation of business institutions in relation to the public safety and welfare.—*Editorial, Wisconsin State Journal, Madison, April 2, 1925.*

Attorney General Holds Iodized Salt May Be Sold in Wisconsin; Dairy and Food Commissioner Makes Ruling

Iodized salt will be on the market in Wisconsin through the grocery trade following two state rulings in April. Under the state pure foods act it was previously held that iodized salt was an adulteration, prohibited by law, and thus could only be sold as a drug. This is now changed so that it may be sold by grocers providing it is not sold for salt but under a name that will clearly indicate to the public its special nature.

"Assuming that the mixture or compound to which sodium iodide is added is 'not poisonous, injurious or deleterious to health' because of the minute quantities of sodium iodide present," says Mr. J. Q. Emery, Dairy and Food Commissioner, "the Attorney General holds that if labeled and sold as iodized salt or name of like import or coined name and plainly labeled or branded so as to disclose its true character or composition, such sale is not to be deemed in contravention of the terms of the statute.

"This official opinion of Attorney General Ekern is to be the guide in the matter of the sale of the article under consideration. It is to be carefully noted that the article in question with added sodium iodide is not legally salable as salt, table salt, dairy salt, but is only legally salable when sold as a mixture or compound under a

coined name or by a name as hereinbefore described."

The opinion of the Attorney General follows:

April 1, 1925

Honorable J. Q. Emery,
Dairy and Food Commissioner,
Capitol.

Dear Sir:

You have submitted three samples of so-called iodized salt. Each of the sample contains a small amount of sodium iodide. You state that a sufficient amount has not been added to make the product poisonous or deleterious. There is not sufficient iodide to warrant the salt being administered as a medicine in cases where the use of iodide would be recommended. It is claimed that the addition of iodide to the salt makes it valuable as a preventative of goiter.

You inquire whether or not the so-called iodine salt is to be classed as a food or a drug.

The terms "food" and "drug" are defined in sec. 4600 of the statutes as follows:

"The term 'drug,' as used in this section, shall include all medicines for internal or external use, anti-septics, disinfectants and cosmetics. The term, 'food,' as used herein shall include all articles used for food or drink or condiment by man, whether simple, mixed or compound, and all articles used or intended for use as ingredients in the composition thereof or in the preparation thereof."

You will note that the definition of food is very broad and apparently might include products which might also be classed as drugs. The definition of food was

considered in the case of *McCarthy v. State*, 170 Wis. 516, and a broad construction was given to the meaning of the term "food."

Salt is included within the term "condiment" and also is an article used as an ingredient in the preparation of food. Furthermore, "salt" is defined in section 4601-4 (33) as follows:

"Table salt, dairy salt, is fine-grained crystalline salt containing, on a water-free basis, not more than one and four tenths (1.4) per cent of calcium sulphate * * *, nor more than five tenths (0.5) per cent of calcium and magnesium chlorids * * *, nor more than one tenth (0.1) per cent of matters insoluble in water."

You will note that the above definition does not state what salt shall contain, but is rather negative in form, stating what it shall not contain. It would appear clear that the addition of the small amount of iodide to

the salt would not take away its character as salt and make it a drug within the meaning of the statutes, since it is still used as salt. The fact that it may have some medicinal quality and be of value in the prevention of disease does not alter the situation, as many articles of food have these properties.

You further inquire if this salt can be sold under coined names, or as iodized salt if plainly labeled or branded so as to show the true character and composition.

If, as stated in your letter, the addition of the iodide does not make the salt "poisonous, injurious or deleterious to health," you are advised that the salt can be sold in this manner.

Very truly yours,

C. A. ERIKSON,

Deputy Attorney General.

Riverview Sanatorium Has Ideal Location for Care of the Tuberculous; Daily Medical Service Provided

BY LOUISE F. BRAND,

Wisconsin Anti-Tuberculosis Association,
Milwaukee.

Riverview. A homey name. A homey place. That is one of the first impressions which Outagamie county's sanatorium for the tuberculous makes upon the visitor "within its gates." It is a lasting impression which even the most casual visitor takes away and with that impression is mingled the feeling of peace and quiet and safe security.

There is no sanatorium in the state more ideally located than Riverview. Shut in by thickly wooded hills and overlooking the broad expanse of the picturesque Fox river, it is beautifully secluded. Yet, just beyond the trees at the top of the hill, interurban cars stop on their way between Kaukauna and Appleton. A few rods farther away is Highway 15 with interurban buses included in its heavy automobile traffic. From the windows of the sanatorium signs of busy life are to be seen plainly but unobtrusively—smoking factory chimneys in the far distance, the locks down the river a little ways, across the water and back some distance from the river front swiftly moving passenger trains and the more slowly moving freights, and in the summer the frequent passing of boats on the river.

In a word, Riverview sanatorium is easily accessible to the outside world and at the same time protected from its intrusion. This is an unusually happy combination. The twenty minute car service almost at its very door makes it most con-



RIVERVIEW SANATORIUM.

venient for the relatives of patients to visit them; makes it convenient also for employees to spend their afternoons or evening off in the nearby city, which is much more important than those not in close touch with institutional life sometimes realize. This accessibility to the city is also a great advantage in getting supplies and in securing recreational features for the sanatorium residents. Each week a complete moving picture show is sent to Riverview by the manager of one of Appleton's moving picture theaters.

Look in any direction from the windows of Riverview and a view of exceptional beauty meets the eye. In the laying out of the grounds, artistic landscape gardening has supplemented nature, and the lawn, flower beds, and shrubbery aid in mak-

ing a picture which is a constant delight to the eye in every season of the year. The rooms for patients are arranged along the front of the building which has a southern exposure overlooking the lawn and the river. Riverview was the first county sanatorium in the state to employ the services of a landscape gardener.

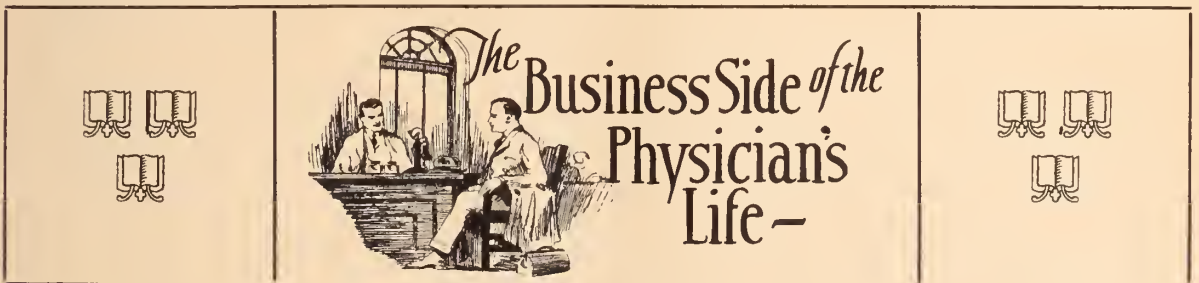
Once every year for several years past, the windows of the sanatorium have overlooked a comedy which, while it is not staged for the benefit of the patients and employees, is greatly enjoyed by them. This is the annual baseball game indulged in by members of the Outagamie County Medical Society and sending them indoors, lame but happy, to enjoy the dinner meeting and program which follows. This program, quite naturally, is devoted to the discussion of tuberculosis and it often happens that there are guests from out of the county present. At the last meeting, Dr. H. A. Pattison of the National Tuberculosis Association, Dr. A. A. Pleyte and Miss Anna Thompson, R. N., of the Wisconsin Anti-Tuberculosis Association's staff, were among the speakers.

One of the most unique gatherings ever held on the lawn of Riverview was the homecoming held three summers ago when former patients came back for the day in response to invitations sent out by the board of trustees, Dr. C. D. Boyd, the superintendent and medical director, and Miss B. L. Boyle, matron of the institution. In a page feature story on this homecoming, the Milwaukee Sunday Journal said: "An amazing proof, it

was, of the fraternal spirit which exists between those who have shared a common experience, who have been through the fight against a common foe. Convincing refutation it was, too, of the suspicion that life in a tuberculosis sanatorium is a gloomy affair. It might have been a college reunion, if one were to judge by the laughter, the gay spirits, and the eagerness with which old associations were renewed."

In some of the county sanatoria of the state, the boards of trustees do not think it necessary to provide for daily medical service at the institution. Not so at Riverview. Its medical director is also its superintendent and Dr. Boyd spends the morning of each day at the sanatorium. In addition to this, the sanatorium employs the medical consultation service of the W. A. T. A. and steps are now being taken for the establishment of a monthly chest clinic in connection with the sanatorium. Intensive follow-up service for keeping in touch with patients after they have left the sanatorium and guarding against costly relapses is also being planned.

Riverview is one of the older of Wisconsin sanatoria. It was opened Jan. 5, 1914, with an original capacity of sixteen patients. Within a year this capacity had been increased to thirty-four by converting the porches into sleeping rooms. It is one of the most popular institutions in the state and there is always a long waiting list of patients anxious to secure admission.



I called two Doctors yesterday. Neither was in. That is not so important as the telephone "receptions" I had. I called Doctor A first.

"Hello," said a girl's voice.

"Is this Doctor A's office?" I asked.

"Yes," came the reply quite bluntly.

"May I speak to the Doctor?"

"He is not in."

"When do you expect him?"

"Pretty soon."

And that was that! About as impersonal and cold as an iceberg. Then I tried my other call.

"This is Doctor B's office," was the opening statement of his assistant in answering the call.

"May I speak to the Doctor?" I asked.

"Doctor B is not in. I expect him at two. Do you desire an appointment?"

(Continued on page 688.)

THE JOURNAL BOOK SHELF

- Diseases of the Eye.** By De Schweinitz. 10th Edition. W. D. Saunders, Publishers, Philadelphia.
- Cancer—How It Is Caused; How It Can Be Prevented.** By J. Ellis Barker. E. P. Dutton & Company, Publishers, New York.
- National Health Series.** 6 Volumes. Edited by the National Health Council. Funk and Wagnalls Company, Publishers, New York and London.
- Physical Diagnosis.** By W. D. Rose. 4th Edition—755 pages. The C. V. Mosby Co., St. Louis, Mo.
- Developmental Anatomy.** By Leslie Brainard Arey, Professor of Anatomy at Northwestern University Medical School. 419 illustrations, many in colors, 433 pages. W. B. Saunders & Co., Philadelphia and London.
- Laboratory Guide in Histology.** By Leslie Brainard Arey, Professor of Anatomy at Northwestern University Medical School. Second Edition, 1924, 96 pages. W. B. Saunders & Co., Philadelphia and London.
- Fundamentals of Human Physiology.** By R. G. Pearce and J. J. R. Macleod. Third Edition. The C. V. Mosby Company, St. Louis, Mo.
- The Physiology of Exercise.** By John Huff McCurdy and R. Tait McKenzie. Lee & Febiger, Philadelphia and New York.
- Child Health Library.** Ten volumes. Robert K. Haas, Inc., New York.
- Local Anesthesia Simplified.** By John Jacob Posner, D.D.S., Chief of the Dental Department Harlem Dispensary, Visiting Dental Surgeon, St. Luke's Hospital, New York. Fifty-five illustrations. C. V. Mosby Company, St. Louis, 1924.
- The Medical Sciences in the German Universities—A Study in the History of Civilization.** Translated from the German of Theodor Billroth, Introduction by William H. Welch. The MacMillan Co., New York, 1924.
- Operative Surgery.** By Warren Stone Bickham, M.D., F.A.C.S., Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York, Former Visiting Surgeon to Charity and to Touro Hospitals, New Orleans. In six octavo volumes totaling approximately 5,400 pages with 6,378 illustrations, mostly original and separate Desk Index Volume. Volume VI, completing the set, contains 989 pages with 1,224 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription only. Index Volume Free.
- The Surgical Clinics of North America.** Portland-Seattle Number, October, 1924. Volume IV, Number V, 263 pages with 12 illustrations. Paper \$12.00; Cloth \$16.00 net. W. B. Saunders Company, Philadelphia and London.
- Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1924.** Cloth. Price, postpaid, \$1.00. Pp. 82. Chicago: American Medical Association, 1925.

per volume, \$2.00; price of series of eight volumes, \$15.00.

Surgical Clinics of North America. Volume V, Number 1. Pages 294 with 142 illustrations. Paper, \$12.00. Cloth, \$16.00 net. W. B. Saunders Company, Philadelphia and London.

Pathology and Bacteriology of the Eye. By E. Treacher Collins, F. R. C. S., consulting surgeon to the Royal London Ophthalmic Hospital and M. Stephen Mayou, F. R. C. S., surgeon to the Central London Ophthalmic Hospital. Second edition with 4 colored plates and 306 figures in the text. P. Blakiston's Son & Co., Philadelphia.

Pediatrics. By Isaac A. Abt, M. D., Prof. of Diseases of Children, Northwestern University Medical School, Chicago; attending physician, Sarah Morris Hospital for Children of Michael Reese Hospital, Chicago. Volume VI containing 736 pages with 150 illustrations. Cloth \$10.00. W. B. Saunders Company, Philadelphia and London.

BOOK REVIEWS

WILLIAM A. MOWRY, M. D.,
Editor

Any scientific publication reviewed in this column may be obtained for inspection. Orders for such inspection should be directed to Mr. W. M. Smith, Librarian, Medical Library, University of Wisconsin, Madison, and should be placed through your local librarian wherever possible. Where there is no local librarian orders may be sent direct. These new books will be loaned for an inspection period only.

A Diabetic Manual. By Elliott P. Joslin, M. D., Clinical Professor of Medicine, Harvard Medical School; Consulting Physician, Boston City Hospital; Physician to New England Deaconess Hospital. For the mutual use of Doctor and Patient. Illustrated, Third Edition, thoroughly revised. Lea & Febiger, Philadelphia and New York, 1924. Price \$2.00.

This latest edition of the widely known book "for the mutual use of doctor and patient" has been thoroughly revised from the 2nd edition of six years previous. The principal revisions are due to the discovery of insulin. The author includes ample instruction for the use of insulin by both the physician and the patient. The book is naturally longer than before by about 10 per cent. There is more revision than this figure indicates. In his more complete text on the "Treatment of Diabetes Mellitus" the author explains how the advent of insulin and the recent improved understanding of dietary proportions have simplified the treatment of the diseases.

BOOKS RECEIVED FOR REVIEW

Practical Medicine Series. Volume V on Gynecology and Obstetrics. Gynecology edited by Thomas J. Watkins, M. D., F. A. C. S., Prof. of Gynecology, Northwestern University Medical School, Chicago. Obstetrics edited by Joseph B. DeLee, A. M., M. D., Prof. of Obstetrics, Northwestern University Medical School, Chicago. The Year Book Publishers, Chicago. Price



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Consequently we find in this manual many items greatly abbreviated and some omitted. On the other hand, matters which have come to occupy more important positions in the author's thinking have been developed at greater length. The prevention of diabetes by the avoidance of excess body weight and by dietary moderation receives much emphasis. As in all the book, the subject here is treated very concretely.

This edition contains more than the previous one on the proportions used in test and maintenance diets. In fact it is rather interesting to note how the author writes always with the patient in the foreground of his mind. The warmth of his personal feeling cannot be concealed. Diabetes mellitus is a very human problem, in addition to its scientific aspect. The book seems cleverly designed at the same time for the general practitioner. The author realizes quite well that few men can devote the time to special study of one disease. He has tried to make safe treatment available to all.

It is to be regretted that no adequate use has been made of the dietary proportions based on definite ketogenic-antiketogenic ratios, such as the "Woodyatt" or "Wildner" types of diet.—E. L. S.

A Textbook of Materia Medica for Nurses. By A. L. Muirhead, M. D., Late Professor of Pharmacology, Creighton Medical College, Omaha, Nebr., and Edith P. Brodie, A. B., R. N., Instructor in Materia Medica and Therapeutics, Washington University School of Nursing, St. Louis, Mo. Second Edition. C. V. Mosby Company, St. Louis, 1924. Price \$2.00.

This volume of one hundred and ninety pages is attractively written and is a concise and useful *reference book* for nurses. The treatment of the subject is very elementary, however, and unless supplemented by material from other sources is inadequate as a text book for student use.

The chapters dealing with weights and measures, preparation of solutions and doses are particularly well arranged and the instructor will find them very helpful when introducing a class to this study.—M. C. N.

The Diagnosis of Children's Diseases. With special attention to the diseases of infancy. By Prof Dr. E. Feer, Director of the University Children's Clinic, Zurich, Switzerland. Translated by Carl Ahrendt Scherer, M. D., F. A. C. S. J. B. Lippincott Company, Philadelphia, London, Montreal, 1925.

The book has already gone into its third edition in three years and has been translated into French, Spanish and Italian. This edition was translated into English by Carl Ahrendt Scherer, M. D., F. A. C. S.—550 pages, published by J. B. Lippincott, Philadelphia.

This work is the result of long years of clinical activity as director of large children's hospitals and clinics at Heidelberg and Zurich. Dr. Feer is director of the University Children's Clinic at Zurich, Switzerland. A first impression of his book is that it is a book on diagnosis and not treatment. The most common and important diseases are given the greatest consideration; self-evident facts are omitted. In his experience as a teacher, the author has found it extremely helpful to lay special stress on the most obvious symptom and

develop the diagnosis from it. This method is stimulating and compels acute observation and rapid evaluation of the individual signs at the bed-side.

The book is complete from a careful consideration of "The Case History" and the "Technic of Examination" to a most thorough consideration of the differential diagnosis of diseases of the nervous system and the final subject of "Causes of Sudden Death."

For the medical student, the general practitioner or the pediatricist, this book will be a most helpful adjunct to differential diagnosis in children's diseases. It is profusely and excellently illustrated and is unusual in American text books on pediatrics.—H. M. C.

THE BUSINESS SIDE.

(Continued from page 685.)

"No," I answered. "I just wanted to speak to the Doctor for a minute over the phone."

"If you will give me your name and number I will call you when the Doctor comes in."

I did just that and had him on the line in half an hour. I haven't talked to Dr. A yet although I have called twice.

Moral? Yes! The telephone is an essential part of the reception room. How are your patients received?

* * * * *

Then there is that handy sign that informs you "The Doctor is out. Will return at —," with adjustable clock hands pointing to the hour.

Really very handy where you are not using an assistant. But—just a few days ago such a sign informed me that the Doctor would be in at two. I missed a train before I learned that the Doctor was out of town and would not be back until the following day.

* * * * *

I had to wait probably half an hour in a reception room not long ago. I read "Hygeia" and never thought about the time. I wonder why it is that so many will subscribe for everything from "American Golfer" to "World's Work" but do not subscribe to the one magazine that has the doctor's interest at heart as well as the patient's? Let me recommend "Hygeia" as an investment.

You will find it worthy of an "Aaa" rating.

REPORT OF CONVICTIONS WANTED

Dr. Robert E. Flynn, secretary of the State Board of Medical Examiners, desires that members of the State Medical Society report irregularities in medical practice. He may be addressed at the State Bank Building, La Crosse.

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OH, DOCTOR, DOCTOR!

By H. A. J.

I see by the papers, as Mr. Dooley would say, that Robert Frost, "the New Hampshire poet," is going to sojourn at the University of Michigan. He is not required to give any lectures, correct Freshman themes, or do anything in fact, but be in residence and write poetry. Henceforth the song of the throistle (in Ann Arbor) will not go unrecorded, nor will the football songs lack the necessary punch. I wouldn't mind having such a job myself.

Imagine the delight of a subsidized existence in a university town. No routine of classes to conduct, no worry over coal bills, and above all, a noble incense of admiration from the acolytes clustered about. Mr. Frost will flit from one tea to the next, (which is one disadvantage of the position) and leap from afternoon coat to dinner-coat. In the evening he will hold open house for such students as manifest the true poetic insight, or at least show a proper degree of sympathetic appreciation.

The only trouble with a job like Mr. Frost's is that it is too good. When Coleridge was granted an annuity by a friend who wished him to be free to write poetry, he ceased to do any more worthwhile writing, although this may have been because of his habit of taking opium. Mr. Frost will be beset by invitations to act as centerpiece at various teas and receptions, which he must accept, or be classed as an ungrateful parasite. The poetic muse, however, may take refuge in flight, leaving Mr. Frost to beat a weary path from one boring reception to another.

If I were being subsidized as a likely young poet, I should insist that the contract carry a non-residential clause. University life has so many interesting diversions to offer that I should never be able to do any work unless I had a hermitage, such as Mark Twain built at his home in Connecticut. It would have to be far enough from the campus so that none but very earnest students would think it worth their while to come, and I would have a mail box, but no telephone. With such reservations as I have mentioned, I think I could enjoy life as poetic arbiter and inspirer in almost any university.

I wonder what Mr. Dooley would say to Robert

Frost at Michigan. The sage of Archey Road (who like all sages, is no longer listened to) might very well lean across the bar and confide to his friend Hennessy: "Well, I see them boys at Michigan have caught another poet. They tried to tame Robert Bridges, but he got away and went poet-laureating back to England. I wonder, will Mr. Frost enjoy being a tame poet on a pedestal?" I wonder myself.

HOGGING THE ROAD?

Pig Upsets Woman—Mrs. Edward Bremmer of Kingston is confined to her bed as the result of torn ligaments in her legs sustained when she was thrown to a cement walk when run into by a pig. She has been placed in a cast and will be confined for six weeks.—Fond du Lac Reporter.

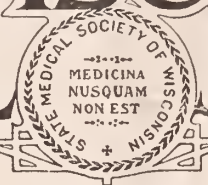
PUBLIC HEALTH NOTES.

"I am a licensed barber. Have I a right to take off warts and moles with mole or wart remover, and charge for it?" It was replied that a license to do barbering does not grant authority to remove moles or warts for compensation. These are sometimes serious afflictions leading to cancer, it was explained, and require the greatest care surgically.

Answering many inquiries, the department explained that for the prevention of simple goiter it recommends sodium iodide in the form of chocolate-coated tablets, taken at specified times, rather than iodized salt taken indiscriminately. The objection to the salt is in its uncertain dosage in relation to the particular needs of the individual, and the resulting inability to measure the amount of iodine taken. For children with enlarged thyroids, the iodine tablets should be taken as directed, even though iodized salt is used in the home.

There is no state law barring surgical tuberculous cases from general or surgical hospitals. The procedure is left to hospital trustees. It is the general practice to admit tuberculous cases needing surgical care to all medical and surgical hospitals in the state. There is held to be little danger of transmitting tuberculosis provided the well-established principles of sanitation are followed.

THE WISCONSIN MEDICAL JOURNAL



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J. G. CROWNHART, Secretary-Managing Editor

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NUMBER 1

MILWAUKEE, WIS., JUNE, 1924

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THE SEVENTY-EIGHTH ANNUAL MEETING

In this issue there is published the first preliminary program for the Annual Meeting to be held at Green Bay, August twentieth to twenty-second. While some papers are still to be listed, the scientific program as set forth promises to be of very real interest and value to our members.

The House of Delegates has important business to transact. Many questions of a socio-medical nature will be discussed. In our next issue we expect to announce that an entire evening will be set aside for the purpose of a general discussion of these questions by all the members present.

The seventy-eighth annual meeting will be well worth attending. Plan on it now.

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Waukesha Springs Sanitarium

FOR NERVOUS DISEASES



BUILDING ABSOLUTELY FIRE-PROOF

W. CAPLES, M. D., MEDICAL DIRECTOR

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AN INNOVATION

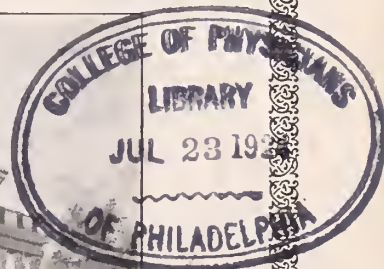
The policies of a progressive organization are constantly in a state of formulation. This is especially true of the policies of our Society at this time. The policy to be adopted in any instance should be the result of the group opinion.

With this in mind, we are indeed glad to announce an innovation for our Green Bay Annual Meeting. On Wednesday evening, August twentieth, it is planned to have an informal general meeting and smoker. At this meeting arrangements are being made to have three speakers present three phases of the general socio-medical problems. What these men will have to say will be of interest to every member. What the members have to say in the general discussion that will follow will be the basis for action by our House of Delegates.

We commend this innovation without reservation. We anticipate that the opportunity this offers will be reflected in an attendance that will fill the hall.

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Waukesha Springs Sanitarium FOR NERVOUS DISEASES



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BYRON M. CAPLES, M. D., MEDICAL DIRECTOR

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VOLUME XXIII
NUMBER 3

MILWAUKEE, WIS., AUGUST, 1924

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YOUR SOCIETY

The next meeting of your State Medical Society will be held at Green Bay, August 20th, 21st and 22nd, 1924. It is YOUR society. It was conceived and founded by and for the medical practitioner. It was founded that Wisconsin might be a better state, its people enjoy a better citizenship, its physicians rank with the best. It was to be an organization of service—service to its members and to the people whom they serve. It was to promote education, public health and social intercourse and mutual benefit of its members. Membership is contingent on certain requirements which you have met. To attain these meant years of work and sacrifice. In attaining them and the recognition of your society you have been honored, but you have also assumed a responsibility, for it then becomes your society. Have you thought seriously of your relationship to the State Association?

Your State Medical Society is the one great influence for good in medical practice in this commonwealth. It is the one great democratic medical organization, embracing all reputable physicians in the state and responsible for the welfare of your profession. To it you owe your first and greatest loyalty. It is working for your interests the year round. Can you do less in return than attend its annual meeting and take an active part in its deliberations?

—Rock Stegster, President, 1924.

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Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

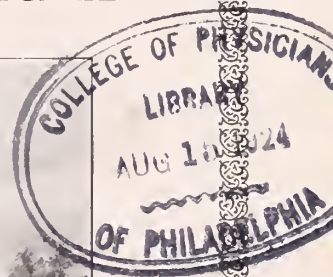


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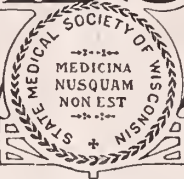
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By C. R. Bardeen, M.D.

Original Articles

By W. C. Danforth, M.D., Fred L. Adair, M.D., Chas. N. Meader, M.D., Roy M. Greenthal, M.D., and George F. Kelly, M.D.

Reports of the 78th Annual Meeting at Green Bay
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Tomahawk Lake Camp—A Unique Institution

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Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

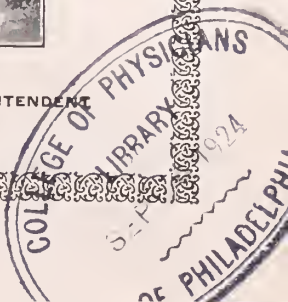


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General Medication in Tuberculosis

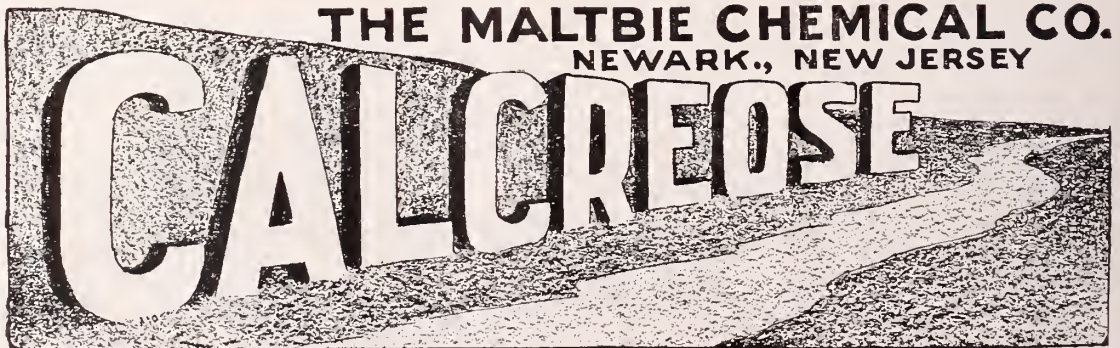
"CALCIUM—Certain it is, that patients, especially children, often improve with increased amounts of calcium in their food or as a medication."

"CREOSOTE—It seems to be true that many patients have improved appetite under its stimulant or irritant action in the stomach. It may also for a time improve digestion, and the patient often adds weight. During this period there is frequently a lessening of the bronchitis, and, therefore, a decreased expectoration, and with this decrease of the secondary (streptococcal) infection, there is likely to be less fever and, therefore, less sweating." A. M. A.: *Handbook of Therapy*, Ed. 6, p. 201.

CALCREOSE (calcium creosotate) is a mixture containing in a loose chemical combination approximately equal weights of creosote and lime. It has the pharmacologic activity of creosote but apparently does not have any untoward effect on the stomach.

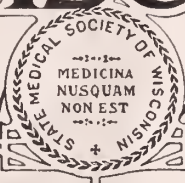
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Annual Assembly, Tri-State District Medical
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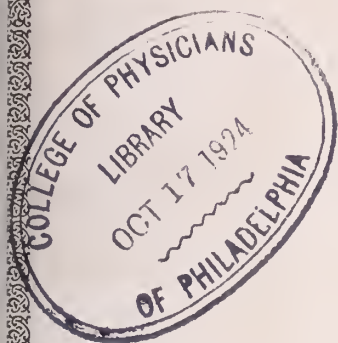


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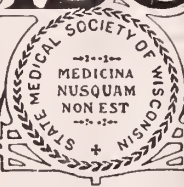
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A NEW RECORD

"What happened to Wisconsin's membership when your dues were increased over one hundred per cent?"

This is the question asked this month by an officer of a neighboring state society where the dues have just been increased from \$5 to \$10 for the employment of a full time secretary and to permit an increased program of activity. The answer will be of interest to every member of our Society.

On December 31st, 1922, when the dues were \$4, the membership was 1,910. On December 31st, 1923, the year the dues were raised from \$4 to \$9, the membership dropped to 1,882, a loss of twenty-eight.

On October 30th, 1924, our membership stood at 1,919, a new high record, and many applications are still pending. At the same time the current year has seen a new record established for the prompt payment of dues.

The reason, for there is a reason, is the united effort of the officers and members to put across a dynamic program of high purpose. As its accomplishments increase so will there be an increase in the benefits to each individual member. In short, an effort is being made to give each member more than his money's worth.

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Waukesha Springs Sanitarium

FOR NERVOUS DISEASES

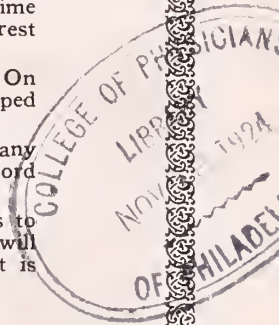


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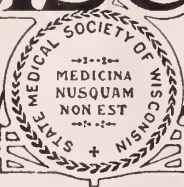
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A*



*Very
Merry
Christmas*

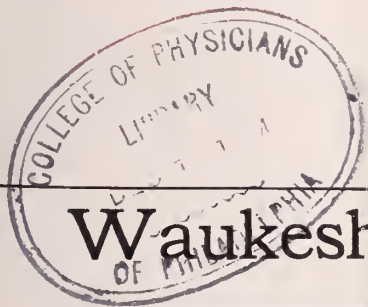


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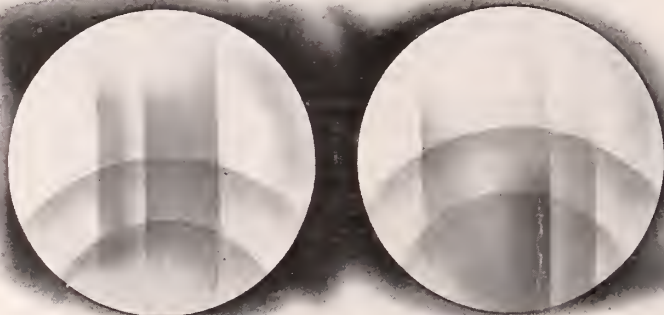


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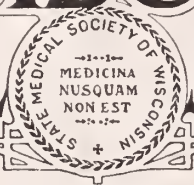
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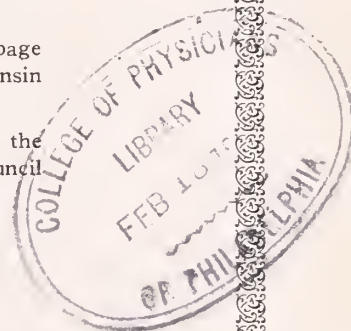
The attention of our readers is called to several important features in this issue. There is an editorial "An Invitation" on page 502; then see page 524 for the text of the so-called Basic Science bills introduced in the Wisconsin Legislature. Very important.

Essential provisions of the Harrison Narcotic law are explained on page 531. The Russell Sage Foundation summarizes its review of the Wisconsin Eugenics law on page 533.

Every member of the State Medical Society will be interested in the editorial "The 1925 Meeting" on page 501 and the transactions of the Council on page 513.

This is a live issue for live readers. Be a live one.

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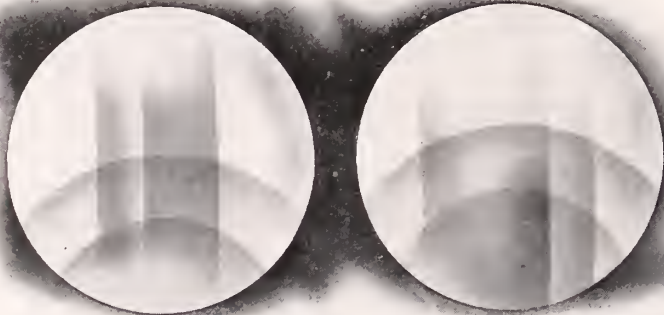


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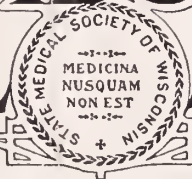
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FOR EVERY MEMBER

On March first close to 1,000 members had received their 1925 certificates of membership. This is a new record for prompt payment of dues.

*On April first it becomes the mandatory duty of your officers to remove from the membership roll and mailing list, the names of all those in arrears. With a program in operation that affects **every member**, the Society can not afford to drop a single name from its membership roll. Let us all contribute to the breaking of another record—**everyone in good standing by April first.***

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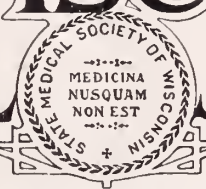
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"CERTAIN OBLIGATIONS"

"To become a doctor means to assume certain obligations—and we don't need the Hippocratic oath to indicate them. To become a prominent doctor implies additional obligations and heavier responsibilities. Inevitably he serves as a pattern for students and young practitioners. For the laity he represents our profession. His methods of work, his attitude towards the patient and the patient's friends, his ethical standards, his financial trends are closely scrutinized. Even the language he uses, the matter of punctuality and habits of personal cleanliness are not without influence and make for weal or woe."—Hugh T. Patrick.

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Waukesha Springs Sanitarium

FOR NERVOUS DISEASES



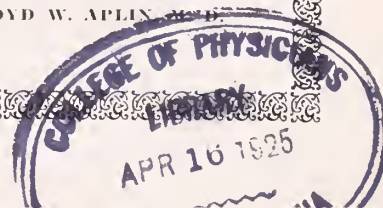
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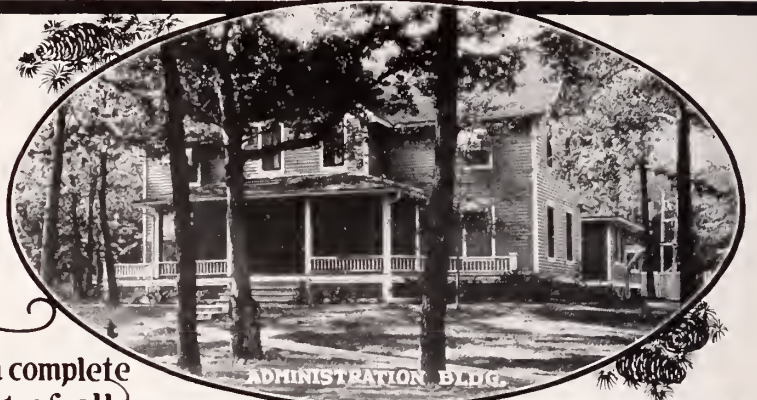
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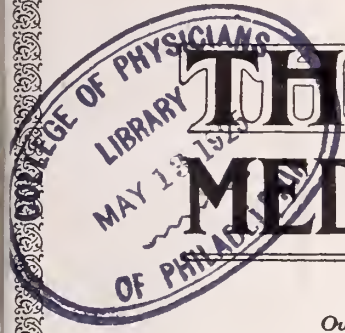
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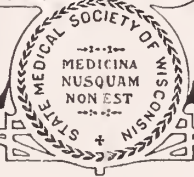
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Treatment of Septicaemias and Intoxications in Infants and Children,
by Alan Brown, M.D.

Chronic Cervicitis and Endocervicitis, by Carl Henry Davis, M.D.

Modern Aids to Labor, by W. B. Hendry, M.D.

Standardization in Digitalis Medication, by E. F. Bickel, M.D.

Present Status of Scarlet Fever Antitoxins, by H. M. Guilford, M.D.

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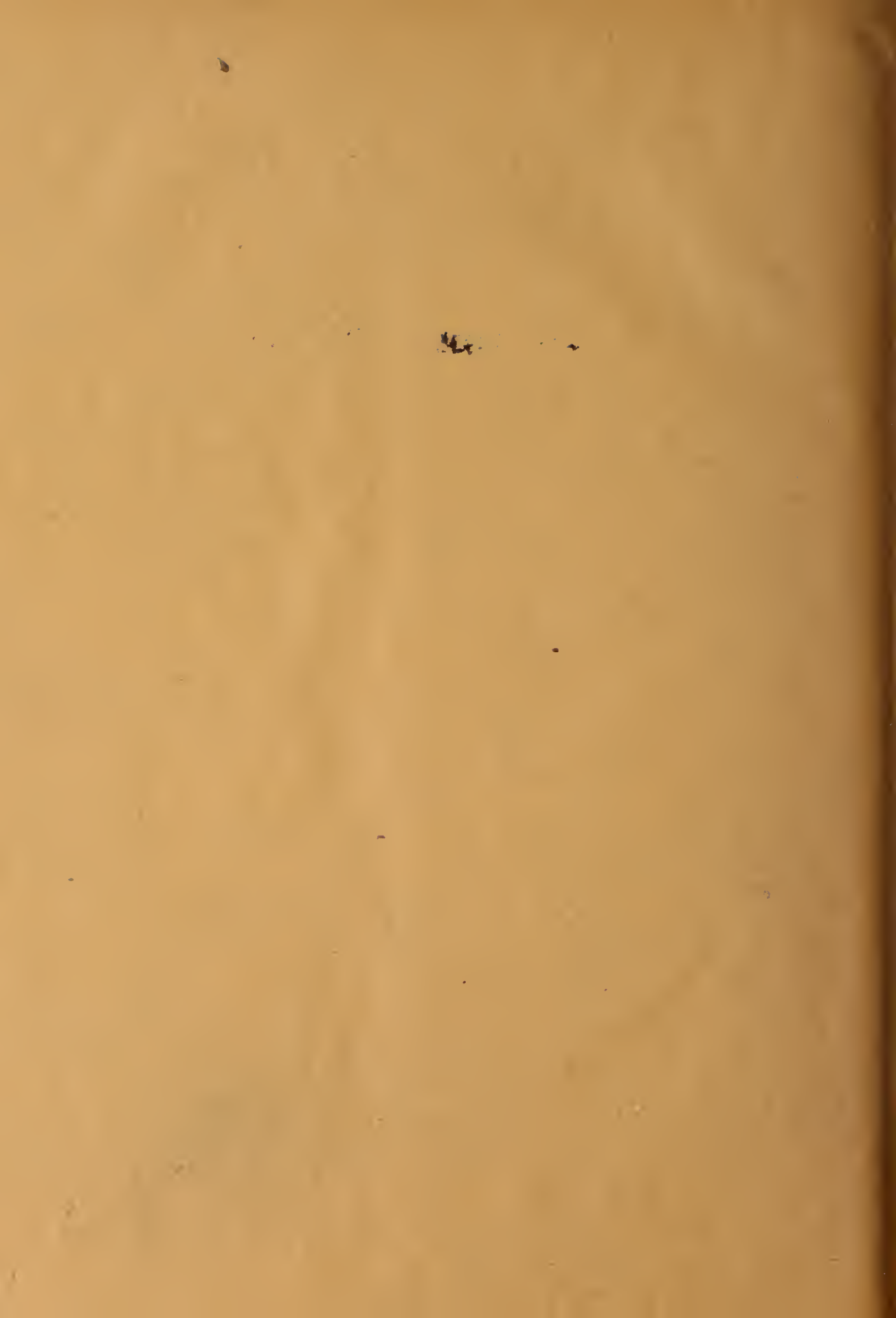
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