

Program for Our Monthly Physiotherapeutic Meeting

Monday, February 8th, 1926

**L. K. EASTMAN, M. D., Medical Director and Owner Keystone
Hospital, Chicago, Illinois.**

"Physiotherapy in the Treatment of Fractures"

10:00 to 11:00 A. M.

**L. M. OTIS, M. D., Medical Superintendent, Otis Hospital,
Celina, Ohio.**

"Diathermy for the General Practitioner" - 11:00 to 12:00 A. M.

EMILE C. DUVAL, M. D., Chicago, Illinois.

"The Treatment of Osteomyelitis by Diathermy"

1:30 to 2:30 P. M.

L. M. OTIS, M. D., Celina, Ohio.

"The Economic Value of Physiotherapy" - 2:30 to 3:30 P. M.

These meetings are open to physicians and surgeons, without fee or obligation. Come any time during the day and stay as long as you like. These clinics are strictly informal, and are wholly under the supervision of the various physicians on the program.

For February, an unusually interesting program is offered, including talks and demonstrations by three physicians whose names are well known in physiotherapeutic circles.

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FISCHER'S MAGAZINE



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JANUARY, 1926

376

VALUE—

GIVE TO THE WORLD
THE BEST YOU HAVE
AND THE BEST WILL
COME BACK TO YOU.

Fischer's Magazine

*Devoted to the advancement of the Science of Electro-Physio-
Therapy and to the interests of those earnest and enlightened
medical men who are practicing it.*

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Vol. V.

JANUARY, 1926

No. 1

Diathermy in Lobar Pneumonia

By HARRY EATON STEWART, M. D.

New Haven, Conn.

We are entering the fourth year of our clinical study of the effect of diathermy in lobar pneumonia. The beginning and a large share of the total amount of this work was done here in New York at the United States Marine Hospital on Staten Island.

Being frankly experimental, the beginning of the work was postponed until we had a case in which there was apparently no other possible chance for recovery. Such a case soon occurred in a patient whom we saw on the eleventh day of an extending lobar involvement, with every sign of impending death. The result obtained in this preliminary test case was one of the most dramatic in the author's medical experience. The patient's cyanosis, which was extreme, disappeared almost immediately after the maximum heat was reached, his expiratory grunt ceased and he returned to consciousness, expressing a feeling of relief, which lasted about four hours, during which he slept soundly. There was some improvement in his thready irregular pulse, which gain became marked and permanent following the next few treatments. His temperature fell by lysis and he made an uninterrupted recovery.

Realizing that this result might have been accidental, we were encouraged to continue with a series of ten cases. In all of these and the subsequent cases treated clinical and laboratory findings were made entirely by the regular hospital staff, and the writer's department was concerned merely with the admin-

istration of the treatments. Except for one case, practically moribund on admission, with four lobes involved by a streptococcal infection, septicemia and empyema, these cases all recovered. A second series did equally well under diathermy, after which it was decided to run a series of controls for a comparative study.

You do not have to be reminded of the caution that must be exercised in accepting any treatment as of value in this disease. Pneumonia varies widely in its mortality in different seasonal epidemics, in groups of cases in which different types of the organism predominate, according to the patient's age, alcoholic history and the conditions under which the illness occurs. We thought we had a rather unusual opportunity in this hospital for the study of a treated and control group. The cases admitted were practically all merchant seamen who in the two groups averaged about thirty-five years of age with practically the same alcoholic histories and similar living conditions aboard ship. They were treated exactly alike by the same physicians and nurses in the hospital wards, except as regards diathermy.

The general average mortality in lobar pneumonia is believed to be about 35 per cent at thirty-five years of age. This mortality would be increased somewhat in men of the type of life with whom we had to deal and by the conditions under which most of them were taken ill on ship-board. We have one series of 41 treated cases with an average mortality of 17 per cent, and 21 cases used as controls with a mortality of 42.9 per cent, a reduction of about 60 per cent in favor of the treated group.

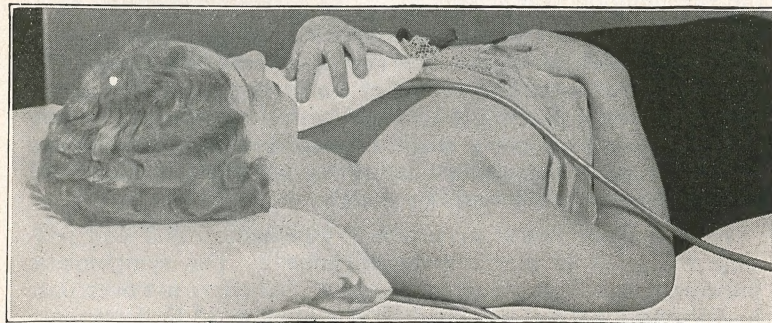
Interest aroused in our work has led to the use of diathermy in pneumonia in a rapidly growing number of cases in hospital and private practice. This work has been done under the close observation of between fifty and sixty different clinicians whose unbiased opinion has been helpful in estimating the value of the treatment. The relief of symptoms described in the treatment of our first case has been practically the rule in the entire group reported on. The fall in temperature began immediately by lysis in all but three or four of all treated cases.

There is in private practice an increasing tendency to use

diathermy only in the more severe cases, and in spite of this the mortality has not risen much above 13 per cent. More than half of the cases treated with diathermy in which death occurred were apparently hopeless at the time treatment was instituted. Many of them were complicated by four or five lobe involvement, marked pathology in the heart or kidneys, and present or recent pregnancy. Only a single case has been lost (as far as the writer is aware) in which diathermy was given before the third day of the disease.

Recent Case Reports

Of special interest are three groups of cases recently reported. One occurred in the Iowa Institution for Feeble Minded Children, Glenwood, Iowa, treated under the direction of Dr. T. B. Lacey. These children, Mongolian Idiots and low grade morons, have notoriously small resistance to serious disease. Dr. Lacey was able to obtain a mortality of 10 per cent last year by using diathermy in pneumonia, where heretofore his mortality had been very greatly in excess of that figure. The second group occurred among the miners in the employ of a leading zinc company in New Jersey, where for years the mortality from pneumonia had been exceedingly high. Exact figures are not yet available, but it can be stated that a very great reduction in the number of fatal cases, apparently due solely to



Diathermy in Pneumonia Illustration shows the large electrode applied over the chest. A similar electrode is placed under the patient's back.

the use of diathermy, has been obtained in the plant hospital of this company. The third group comprises a study of 154 cases of lobar pneumonia treated by Dr. Groesbeck F. Walsh in the Employees Hospital of the Tennessee Coal, Iron and Railroad Co., Fairfield, Ala., a report of which was read by him before the Internal Medicinal Section of the Southern Medical Association, held at New Orleans, La., November 24, 1924.

In his series the cases that were moribund, those with severe complications and those occurring among infants and children were excluded from both groups. Of his cases 122 were negroes and 132 whites. There were 31 females and 123 males. In the treated group of 95 twelve were lost (a mortality of 12.4 per cent), and in the untreated group of 59 twelve were lost (a mortality of 20.3 per cent). As was the case in our own control group, the patients were treated exactly alike as to medicinal and nursing care by the same physicians and nurses.

X-rays were obtained in practically every case. Up to the time of this study 400 cases of lobar pneumonia treated by the staff of this hospital since November, 1919, gave a mortality of about 25 per cent. Dr. Walsh feels, as does the writer, that his group is still too small to state that the mortality was lessened by the use of diathermy, but his figures add distinctly to the presumption that it was.

These cases have been treated since February, 1924, and it is expected that this season will greatly increase the figures obtainable. The symptomatic relief following treatment in all of these cases is practically identical with that described by me, and he too reports not a single untoward effect from the use of diathermy. The writer's treatment technique as described in this paper was followed out exactly.

How can the almost invariable symptomatic relief and possible reduction in mortality be explained? The symptomatic improvement is immediate, lasting in its *full* effect not over four hours, and must be explained by the simple physical presence of the intrapulmonic heat developed. On the other hand, the reduction of the mortality, if such there be, must be due to a

stimulative effect on the body's natural defense against the pneumococcus.

The analgesia which the heat produces in sensory nerve termini accounts for the cessation of the respiratory grunt and slightly increased respiratory excursions. The cyanosis, in part due to deficient aeration of the blood, and in part probably an index of the overload on the right ventricle, is nearly always diminished or completely dispelled. This is probably due to temporary improvement in the pulmonic circulation around the consolidated area. It is not probable that the solidified area itself is greatly affected. Increased quantity and ease of expectoration usually follows the treatment. There is some lowering of systolic and diastolic blood pressure after nearly every diathermy application. At first we felt that hypotension was a contraindication to the use of diathermy, but have not found it so in the light of subsequent experience.

In none of our cases did the temperature reach normal any sooner than it would have done in untreated cases. The use of diathermy does not, then, shorten the duration of the disease. It has, however, seemed to definitely shorten the period of resolution.

There are cases in which resolution is rather rapid with accompanying signs of toxin absorption. Diathermy should at once be discontinued, if such condition arises.

The rationale behind the use of diathermy is totally different from that of serum. Hence there is no contraindication to their combined use where serum is clearly indicated. The employment of diathermy, an external procedure, is followed by no unfavorable reaction, does not have to be postponed awaiting the result of laboratory reports, and is apparently efficacious in all types of lobar pneumonia. Therefore, it presents several advantages over the use of serum.

Technique

Diathermy is the application of the bipolar high frequency current of D'Arsonval, which produces a central heat between the surface electrodes. It can be given wherever there is alternating current by means of any one of several types of portable

apparatus supplied with a milliamperemeter and capable of delivering 2,000 milliamperes of current.

For electrodes we usually employ the flexible composition metal, 22 gauge, cut in convenient sizes with edges turned over and rolled flat. For use over a single lobe plates about 5 by 7 inches, applied to the chest and back, are convenient. In treating two adjacent lobes, one lung, or both bases, we use larger electrodes, which will include the involved area. When it is necessary to treat two non-adjacent lobes, plates of the size for a single lobe treatment are employed and two separate applications of the current are given. The anterior electrode may be of flexible chain material when there is any great irregularity in the contour of the chest. The preparation of the electrodes consists in warming them thoroughly and covering them with hot soap lather before applying them to the skin. The posterior electrode, clipped to the cord, is placed on a folded bath towel, the mattress depressed, and the electrode slid under the patient to its proper position without disturbing him. An additional towel or small pillow may then be crowded under it to insure good contact. The chest electrode may be gently held in place by the tips of the operator's fingers or secured with adhesive strips. Sand or shot bags and circular constrictions are to be avoided, if possible. When the patient is restless, irrational or coughing heavily, good contact must be secured in any event.

With everything in readiness, the current is turned on slowly and gradually, employing about five minutes to reach maximum of 1,400 to 2,000 milliamperes. This maximum may be maintained for twenty to thirty minutes, and then turned slowly and completely off. When patients are restless the cords must be so placed that it will be impossible for them to be pulled loose. In very severe cases treatment may be repeated every four hours. In the usual case two to three treatments in twenty-four hours are sufficient. With the onset of resolution the treatments can be rapidly cut down, both in amount and frequency. In the treatment of children the size of the chest should determine the proper electrodes to choose, and a current of not over fifty milliamperes per square inch of the electrode surface given.

The cumulative experience of the profession in the treatment of this disease has taught caution in placing faith in any one method of treatment. Innumerable methods have been tried and discarded in an attempt to lower the heavy mortality incident to lobar pneumonia.

Clinical investigation of the effect of diathermy in lobar pneumonia offers certain advantages. Among these are:

- a. It is available wherever electricity is installed.
- b. It requires no cumbersome or very expensive apparatus.
- c. The technique of its application while exacting is neither very difficult nor complicated.
- d. Not a single untoward effect has followed the giving of some 1,900 treatments reported to date. We may therefore feel assured that, properly given, it is absolutely safe.
- e. No other part of the entire treatment regime of the patient, even including the use of serum, need be postponed or contraindicated when diathermy is employed.
- f. Unlike certain other medical and surgical procedures, it has not proved its value almost wholly in the hands of one individual or institution. The writer is glad to acknowledge that a number of his co-workers have obtained a lower mortality in the treatment of their cases than he has in his own. He feels certain that what they have done may be equalled or surpassed by the Profession at large.

(From *Am. Jour. of Electro. and Radiol.*, Feb., 1925)

Electrotherapy

Weiss used successfully cataphoresis of colloidal silver for impregnation of bones from cadavers. The results were sufficiently encouraging for therapeutic experiments in tuberculosis of the bones. The first impression was very good, but he thinks that it is necessary to wait longer with the publication of clinical results.

(From *J. A. M. A.*)

White or Blue Globes for Deep Therapy

By CURRAN POPE, M. D.

Medical Director, The Pope Hospital and Consulting Neurologist
and Physical Therapist, St. Anthony's Hospital

Louisville, Ky.

Light may be divided into the visible and invisible rays. If we pass the white light of the sun or the light of the electric arc through a prism the light is split into its component rays. These component rays are known as the solar spectrum. The seven different colors of the visible rays from long to short waves are red, orange, yellow, green, blue, indigo and violet. We therefore can see the entire combination of colors, white light and its component parts when split into colors. The red and orange produce or are associated with heat, both physically, physiologically and psychologically. The latter, symbolically standing for heat and passion (both anger and sexual) and typified by many expressions in the language such as in criminology a deed done in "heat and passion"; "he saw red" (anger); "red light district," etc., etc. In the fall or autumn one of the reasons why the red leaves are so beautiful is that they give the impression of warmth and heat in the landscape before the onset of the temporary death and bleakness of nature's vegetation. Yellow and green are light producers and are often spoken of as luminous. The luminous rays we find are restful. The brilliant greens of the trees and plants, of the grass, rarely if ever irritate the eyes. The blue, indigo and violet are believed to possess some chemical properties, these properties increasing as we pass into the shorter wave lengths of the actinic and Roentgen fields. From time immemorial dark blue, indigo, and violet have been associated with a sense of quiet, repose and therapeutically are sedative. The last named has for centuries been the color of half mourning. Many decades ago General Pleasanton, an Englishman, used a "Blue Glass Treatment," which was as is often the case, patronized by many people who proclaimed the beneficent and sedative properties of the treatment. The medical profession dubbed him a quack, decried and fought the treatment, but in view of later knowledge

it is probable that it may have had both a physiological and psychological sedative effect. Both white and blue light from the so-called deep therapy lamp are visible rays. Both are neat, clean and satisfactory methods of applying *dry* heat. The chemical or actinic frequencies can be screened by glass, which effectually prevents their passing. Blue, indigo and violet colored light also screen the larger number of the frequencies below the blue. Hence we may say that the blue lamp is relatively speaking a colder light than the whole or colorless globe. Kaiser (British Medical Journal) observed the favorable action of blue light on septic ulcers and on tubercle bacillus, finding that the cultures lived when exposed to the red and yellow. He advised that preference be given to blue light therapy in preference to white light therapy in tuberculosis, as he believed that the blue light killed the tubercle bacillus and, furthermore, that the blue and violet light penetrated bones and those tissues which are not richly supplied with blood. Kaiser insists that a "Blue Screen" or globe must be tested to see that the blue glass effectively shuts out the other frequencies below the blue. *Personally*, I doubt if the ordinary commercial blue 1500 watt globe as purchased in the stores filters very many of the wave lengths below the blue, and is probably blue to the eye rather than blue therapeutically. Kaiser's conclusions were that blue light stimulates metabolism, that its action is directly proportional to the intensity and distance of the ray of light; that they penetrate vascular tissues; that deep effects can be produced and that they are anodyne when concentrated. As long ago as 30 years, Pancoast of Philadelphia in his book, "Blue and Red Light," spoke of the advantage of blue light in a number of diseases.

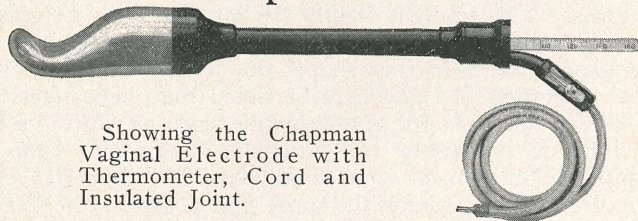
Minin (A. W.; St. Petersburg. "On the therapeutics of the blue light": Journal Physical Therapeutics, January 15th, 1902) believed the blue light from his Minin lamp, long since replaced by the deep therapy lamp, acted more or less specifically on the vasomotor nerves; that they were sedative and analgesic and ameliorated painful nerve states. He obtained results even when his lamps were far distant enough to remove the thermal action. He performed minor operations, using it as a local

anesthetic, believing also that it materially favored the healing and cicatrization of wounds. He claimed excellent results in pleurisy and noted that a granular surface became red under white light and pale anemic under blue light. He often used the white light and followed it immediately with the blue light because it enhanced the action of both. Bloody effusions ("Black eyes") were more quickly absorbed when treated three or four days afterwards by the blue light than if treated at once. The light's action was to relieve pain and effusion, and the ecchymosis is rapidly absorbed. Burbank ("Ultra-Violet Ray Anesthesia in Minor Surgery," *American Medicine*, April 25th, 1903) reports two cases operated upon by the Menin lamp. He mistakenly calls it "Ultra-Violet" when it is in reality a visible light. Menin's lamp utilized the visible chemical frequencies of the blue, indigo and violet up to the ultra-violet frequencies. Tracy (E. A.: "Skin Anesthesia produced by Actinic," *Ultra-Violet Rays from Menin's Apparatus*: Boston Medical and Surgical Journal) makes the same mistake as Burbank, but confirms the analgesic and healing action of the blue frequencies. William Benham Snow, Sr., has told me that his experience with blue light was similar to those quoted. I was among the first to use the Menin light, and found its physiological action to be that of light in general and of blue light in particular, that is, exceptionally sedative and in moderate degree an analgesic, but I cannot for one moment confirm, nor did I ever find that Menin's statement was true that blue light "Was the equal of cocaine," in my hands it was a poor substitute for local chemical (or medicinal) anesthesia. It must be borne in mind that Menin's globes were all made under his direction, tested and imported from Petrograd, in days and times when science flourished in that city and when lamps were not *all* red. Cleaves (Margaret; *Light Energy*, 1904, page 578) summarizes the action of blue light as producing first a vaso-constriction followed by dilatation, rendering the tissues anemic rather than hyperemic; that in the anemic stage analgesia is most pronounced; that it has a quieting and soothing influence upon the peripheral nerves and the nervous system in general; that it heals wounds and increases the power

to do muscular work. She calls attention to the fact that Von Jaksch (XXth Congress Fuer Innere Medizin, 1902) used blue glass chimneys in his wards. It will thus be seen that the visible blue rays act on the peripheral nerves, soothing, quieting and relieving tension. The so-called visible chemical rays are believed to be of specific value as a reliever of pain, both stimulate the circulation, relieve areas of stasis, unload especially the veins, stimulate the flow of lymph, deplete the deeper structures and promote local metabolic changes. The Royal Mausoleum at Charlottenburg, Germany, has a reputation of being a shrine for persons with shattered nerves and wherein peace, rest and comfort can be found. Of the beauties of this refuge I can personally testify, with its magnificent stained windows of blue glass. The sunlight floods the interior with a pleasing, mellow blue light. It should be noted that accompanying any physiological effect in this chapel the psychic influence must not be forgotten. It may here be noted that some physicians have used a blue light for auto-hypnotic sleep, producing a hypnotic influence by having the patient gaze at a blue lamp and which proved efficient in some cases. Niels R. Filsen, of Copenhagen, Denmark, explains the quiet and peace of the evening hours by the deep blue light emitted by heaven's canopy. In the hurly-burly, in the changing sands of light therapy, the *old* has been forgotten, and the *new* has taken its place. In its day, blue light was much esteemed by those who used it and its results were excellent, whether due to genuine physiological action as the writer believes or to hetero- or auto-suggestion as some critic might suggest. I doubt the blue glass globe of today. It is an untested, unscientific and commercial globe, if my source of information is correct. At present its blueness is largely visual and expectancy of results similar to that of the older authorities is likely to produce "Blueness" in the psychic sphere of the radiant energy operator. The difference between the two lamps of today white and blue, may be summed up as stimulating (white) and sedative (blue) or better the blue is *less* stimulating and *more* sedative than the white. We can state that both white and blue lamps possess sedative and pain relieving properties because of their *general*

physiological action. It is probable that the blue light is more sedative, more pain-relieving and soothing than the white; that the white or colorless lamp is more heating, relaxing and stimulating than the blue; that each occupies a certain restricted field and should be applied within that field as the indications demand. Each has an advantage over the other in its line of therapy, and the possessor of two globes, using them intelligently and based upon a correct clinical interpretation of the patient's needs will obtain better success than the physician who possesses only one, whether that be plain or of azure hue.

Another Improvement for The Chapman Electrode



Showing the Chapman
Vaginal Electrode with
Thermometer, Cord and
Insulated Joint.

This improved vaginal electrode has been a favorite with gynecologists ever since its introduction, over a year ago. The one drawback noted was the need for preventing the bare binding post at the outer end of the electrode from touching the patient, thus causing shocks. This has now been overcome by the addition of a cord and an insulated joint, as illustrated. Prices of the improved electrode are as follows:

Cat. No. 1909. Code VERMIN. Regulation Size Chapman Vaginal Electrode. Shank $1\frac{1}{8}$ in. diameter, cervical bowl $1\frac{3}{4}$ in. wide and $\frac{3}{8}$ in. thick. Handle of hard rubber. Price complete with thermometer, cord and insulated joint, **\$13.75.**

Cat. No. 1908. Code VERMEL. As No. 1909, without thermometer, **\$8.25.**

Cat. No. 1907. Code VERITY. Small Size Chapman Vaginal Electrode. Shank $\frac{1}{2}$ in. diameter, cervical bowl $1\frac{1}{8}$ in. wide and $\frac{1}{8}$ in. thick. Handle of hard rubber. Price, complete with thermometer, cord and insulated joint, **\$13.75.**

Cat. No. 1906. Code VERDUR. As No. 1907, without thermometer, **\$8.25.**

Physiotherapy in a State Hospital

By L. C. ELSOM, M. D.
Madison, Wis.

When I came back from the army, having been director of physiotherapy in one of the large hospitals in the east, I wanted to introduce some form of physiotherapeutic practice into the University of Wisconsin, because of the fact that we had a hospital there crowded with children with infantile paralysis, and cases of all sorts. I knew physiotherapy would help; so I induced the dean of the school to put in a little bit of apparatus. I think we got in a multistat galvanic machine, and a little faradic battery. We got a high frequency machine, too.

Later on, we added a good deal to our equipment so that in addition to those things which I just mentioned, we have three ultraviolet lights, a half dozen thermal lights, and deep therapy lights, Morse wave, and four or five high frequency machines.

I started out by myself at the hospital, and now I have four trained assistants. We did no advertising whatever, because my thought was, if physiotherapy is a good thing, I want to show the people and not talk about it. As a result, I am going to give you a report of the forms of treatment that we gave last month.

This was May, 1925. There were 148 cases referred by the university clinic. Let me say that the university clinic is largely a student affair and the first floor of the hospital is devoted to the student clinic or the department of student health, as we call it, and 148 cases were referred for the various forms of treatment. From outside there were referred ten cases and there were sixty-one cases of chronic patients in the hospital, 219 in all that we had during the month, in our department of physiotherapy.

Now, let me give you, if you please, the types of treatments that we used: radiant heat and light—628 treatments, daily average of 28; massage—482 treatments, daily average of 22; muscle training—362 treatments, daily average of 16. We mean by muscle training, muscle education on the part of the

crippled children, and those cases of infantile paralysis. Diathermy—249 treatments during the month, daily average of 11; fulguration—117 treatments, daily average of 5; auto-condensation—62 treatments daily average of 3; galvanic—57 treatments, daily average of 3; or not quite that amount. That makes a total of 2,458 treatments.

Now, let me mention to you the diseased conditions in which physiotherapy was applied. There were seventy cases of warty growths during the month, as follows: Verruca: hands, 21; foot, 40; face, 1; nose, 1; mouth, 2. Papillomatous; scalp, 4; neck, 1. We gave a treatment of fulguration in all cases, and we found that it is the most efficient form of removal of these growths.

Sprains, 21; knee, 3; shoulder, 2; ankle, 9; wrist, 1; finger, 1; back 1. These sprains were treated very generally, first of all, by radiant heat and light, by diathermy, by massage.

Torticollis, 4; treated very largely by the same modalities. Tenosynovitis, 3; they have a number of cases of tenosynovitis because the students are very active in exercises, such as skiing and snowshoeing.

Acne, 25; treated by the ultraviolet rays and the high frequency current, the vacuum and non-vacuum tube; tinea, 2; various indications of tinea cruris, in which the patient had gone for a long time without any relief and had used all sorts of mercurial ointments and lotions, and so forth. They had, I think, two blistering doses of the ultraviolet, and then further treatment of the ultraviolet, and were completely cured.

Alopecia areata, 4, treated by the ultraviolet with radiant heat and light. With some of these cases we get good results. I think we should give no rosy prognosis in these cases of alopecia.

Shingles, herpes zoster, 2 cases; one responded almost instantly to the ultraviolet. The other one improved considerably, and is getting well very rapidly. The first case is very interesting. This poor fellow had eruptions, typical eruptions, along the course of the nerve which is affected in herpes zoster, and I gave him a rather intensified radiation with the ultra-

violet, about a second degree erythema dose. He was suffering greatly with pain. He told me he couldn't sleep at night. In the morning about two o'clock, he would wake up, suffering with pain. After the first treatment, the pains disappeared. The eruption subsided. After that I gave him general body radiation, and he has quite recovered from his disorder.

Psoriasis is one of those freaky things. You don't know whether you are going to do any good. Sometimes you think you are going to make it disappear, and after awhile it comes again. For psoriasis, I think the ultraviolet is the best method; I am quite sure of that. I have used both methods of technic. I have used the methods of blistering doses, and I have used the method also of general body radiation. I am inclined to believe that the general body radiation possibly serves the best purpose.

Fractures, 14; radiant heat and light, diathermy massage, and, in some cases, the ultraviolet.

Indolent ulcers, 2; these were treated with radiant heat and light, and ultraviolet afterwards, and they disappeared very satisfactorily.

Bell's palsy, 3. In Bell's palsy we use the thermal light. First, radiant heat and light on the face; then we follow that by the diathermy, which is applied by using two hand electrodes. I have the patient simply hold them on the side of the face, over the affected nerves. In this way we get a very satisfactory heating current. It seems very beneficial. In most of the cases of Bell's palsy, besides the heat, besides the general massage, I nearly always give a very slight galvanic stimulation—only for a few minutes—and in most cases that form of treatment has been attended with great success. It has cut the convalescence down one-half, and possibly more.

Infantile paralysis, 6. These cases were treated with radiant heat and light, diathermy and massage.

Tuberculous lesions: Surgical tuberculosis, 3; ultraviolet and radiant heat applied. Osteomyelitis, 5; diathermy and radiant heat. Bursitis of the knee, 5; diathermy, radiant heat and massage. Contusions of the knee, 4; diathermy, radiant heat

and massage. Ankylosis of the jaw, 1. This was caused by the infection of the extraction of a tooth. The patient was hardly able to open the mouth at all. By the application of diathermy, the infection which was present had been destroyed; in addition the tissues were warmed up, thus allowing freer motion. Peripheral nerve lesions, 5; these were of various sorts; galvanic and diathermy application.

Neuritis of the shoulder and arm, 12; diathermy, radiant heat and light. Arthritis, 22; radiant heat, ultraviolet, diathermy. Infection of the hand, 5; foot, 3. Rickets, 23; treated exclusively by the ultraviolet light; and miscellaneous cases, 14. That made a total of 219 cases.

I would like to say something about rickets. We have been making a rather exhaustive study in the University of Wisconsin in regard to rickets produced in animals, by feeding them food deficient in certain vitamins—notably rats. We found rickets in rats, due to the fact that they were given insufficient rations, invariably could be cured by the ultraviolet light without any change in the food supply. That seemed rather interesting. These changes were noted by the clinical investigation and by the x-ray. It showed the apices of the bones well healed. The children that we have had in our clinic, being treated for rickets, have improved very markedly.

This has been found by actual blood test. We have found that the blood calcium has had a remarkable increase, and every one, without exception, has improved to a very great extent.

I can give you some very encouraging reports in arthritis, and some reports that are not very good. In some cases of arthritis we seemed to have had very wonderful results; that is, the pain has been relieved; the clinical symptoms have seemed to pass away, but, in regard to arthritis, we must consider, of course, there is some specific focus of infection. The focus of infection must be removed before we can hope to produce any lasting results. Taking it for granted that we have removed the focus of infection, I think diathermy presents one of the best forms of treatment, because of the fact it has a tendency to loosen up the fibrous adhesions and the calcareous deposits that may have occurred around the joints.

I don't know of anything that offers us that hope so thoroughly as diathermy does. In arthritis we have a very complicated condition of affairs. Sometimes we can do good, and sometimes we can't. Sometimes it is the only thing that apparently gives any relief.

Fulguration

Following an excellent paper on Sarcoma of the Prostate, by Herman C. Bumpus, Jr., at the meeting of the American Urologic Association at St. Louis last May, Dr. B. C. Corbus of Chicago spoke as follows:

"I would like to clear up, if I can, the nomenclature that is being used in regard to the treatment of bladder tumors, especially the word "fulguration." The word "diathermy" means dia—through, and therm—heat. We look upon the procedure as a method of using heat to destroy a tumor mass. Surgical diathermy is divided into two classes—desiccation and thermo-electric coagulation. For desiccation, which was devised and brought out by Dr. Clark of Philadelphia, we use a single pole current. We desiccate all lesions that come under the head of benign tumors, such as warts, angiomas, lymph-angiomas and chancroids. Under surgical diathermy we have the thermo-electric coagulation. This can be done with two different instruments, i. e., with a needle or with a flat disk electrode. On the face and where you want cosmetic effect use the needle; in deep thermo coagulation we use the flat disk. The word "fulguration" is an old name and urologists have come to realize that in using fulguration we defeat what we wish to do. In using the needle electrode trans-urethrally or in the open operation, we place the point on the base of the tumor and coagulate the mass until it is white. Do not rain sparks upon it. If you do, you defeat your purpose. The tumor disappears, but it comes back again because you have not destroyed the stalk. Heat will not penetrate a carbonized barrier."

Galvanism in Goitre

By J. U. GIESY, M. D.

Salt Lake City, Utah

Since the time when I had the pleasure of reading a paper on galvanism, in Chicago, in which I took opportunity to mention the fact that this modality was of great service in goitre, I have been deluged with inquiries from all parts of the United States as to technic.

With a view to answering this question in a printed form and submitting it to the profession wherever interested in the use of galvanism in an attack upon this condition, I am therefore inspired to set down briefly the method which I use at present.

First I do not wish to be understood to claim that the galvanic treatment is applicable to all types of goitre. As a matter of fact in my experience it is not. But in the simple hyperplasias—the goitres of adolescence and those of a similar type developing at more advanced age; in the simple adenomas, in some of the milder types of cystic goitre; in the secondary goitres, by which I mean those resulting from nature's own attempt by thyroid overgrowth to compensate metabolic needs in chronic infections of teeth, tonsils or other chronic infectious conditions, it is of a great value indeed.

Quite naturally in the last mentioned type, the focus of infection should be removed, and then the galvanic treatment instituted as a means of producing thyroid regression, and bringing about as nearly a restoration to normal as we may attain.

The technic is simple. It is a combination of the well established effects of the tissue-shrinking effects of the positive pole plus the ionizing effects of the negative pole on halogens. Of the latter iodine is of course, in the view of recent work on thyroid conditions, the one of choice. Personally, I use a suspension of a five per cent solution in oil. An aqueous solution of two per cent or two per cent potassium iodide may be

used. The rationale of course is that by the introduction of iodine into the system, first as an ionized intra cellular element which is later diffused throughout the body, the burden of crippled function on the thyroid is removed and the gland given an opportunity to rest and recover tone, especially when the circulatory balance is being restored through the effects of the positive pole upon the gland itself.

This being understood, one uses the negative pole moistened and covered with the oil suspension, or moistened with the aqueous solutions as preferred, as an indifferent pole, applied to any convenient point of the body. I generally place it on the chest. The positive pole moistened with water, normal salt solution or as some have suggested, a two per cent aqueous solution of thuja, is applied directly over the thyroid itself. And in order not to be vague, let me explain that the use of the term "indifferent" to the negative here means merely that it is not the pole applied to the affected organ. In reality the negative is active in that it ionizes iodine, and if thuja is used the positive is active in that it ionizes that substance. But in the sense that the positive covers the zone of attack the positive is active in this work.

The pads now being in place, and the patient comfortably placed on a table or chair, as preferred, the current is turned on gradually and easily, to from five to ten milliamperes and allowed to operate from fifteen to twenty minutes, according to whether one is treating both lobes or only one. In a double lobe treatment I generally give ten minutes over each lobe. Treatments are repeated on alternating days, approximately three times a week to begin with and later at three or four days intervals as the size of the thyroid begins to decrease. Treatment will run from six weeks to longer depending on the size and reaction of the mass. But—the results are surprising both locally and upon the general condition of the patient. I feel sure anyone who uses this method carefully will be surprised, and equally sure that his patients will be delighted and therefore satisfied.

The Principles of Diathermy with Report of Cases

By FRANK H. WALKE, M. D.

Shreveport, La.

(Abstracted from *Surg. Jour.* July, 1925)

Diathermy is the term given to the method by which an elevation of temperature is produced in the tissues of the body without destructive effect. This is a form of thermopenetration which utilizes the electrical energy of the cells for heat production by setting up violent agitations of the electrons of the cells of which the tissue is composed, which agitation results in the production of heat.

The physiology of diathermy may be described for all practical purposes as an active congestion. When this current is applied to the body, beneath each electrode the parts become sensibly warmed, and upon inspection appear hyperemic, feel hot to the touch and are covered with a profuse perspiration, thus producing some of the cardinal symptoms of inflammation minus the pain.

By the use of diathermy we apply an internal poultice, and by the proper selection of electrodes heat can be concentrated at any part of the body, whether it be in the chest, abdomen, joint, as preferred. Besides producing heat, diathermy relieves painful autonomic nerves, dilates the capillaries and viens, thus promoting arterial flow, increases oxidation, elevates body temperature, aids absorption and drainage of inflammatory products, raises opsonic index and creates a more positive chemotaxis. It increases metabolism, stimulates glandular secretion, and exerts marked analgesic properties, relieving all kinds of pain.

Among the diseases amenable to treatment by diathermy are traumatic conditions of the muscles, bones and joints; acute and chronic gonorrhea, prostatitis; neuralgia, neuritis, lumbago, sciatica; pneumonia, pleurisy and bronchitis; osteomyelitis and joint conditions; dysmenorrhea, amenorrhea and many other gynecologic conditions. And with the auto-condensation cur-

rent or systemic diathermy, the general diseases such as multiple neuritis, arteriosclerosis, hypo- and hypertension, diabetes, albuminuria, angina pectoris, and the nervous phenomena of menopause are definitely benefited by its use. Again with surgical diathermy or electrocoagulation, cancers, tumors, warts, moles, tonsils and hemorrhoids are successfully treated. The contraindications are very few and the most important is not to use it in the presence of active hemorrhage. A recent hemorrhage from a tuberculous lung, a gastric ulcer or in pregnancy are conditions in which diathermy should not be used.

In conclusion, I wish to say that in diathermy the medical profession has the most powerful agent for relieving pain ever discovered. Its field of usefulness is unlimited, its scope is extremely broad, and its results are little short of remarkable. I predict that diathermy will solve many medical problems which have heretofore been stumbling blocks to our ancient and honorable profession.

Case Reports

Case 1. R. F. H., aged 20, came to my office on crutches, complaining of a sprained ankle, which he had received two days prior in a baseball game. His ankle was swollen three times its normal size, greatly discolored and was paining him severely. He had not slept for two nights, and had used an icebag, a hot waterbag and several kinds of hot liniments, besides taking about 120 grains of aspirin, without relief.

I gave him a 30-minute treatment by diathermy, using a mesh electrode around the foot and another just below the knee. When the treatment was over he stated that he felt much better and that the acute pain had left. He returned the following day and stated that he had not suffered any pain and that the heat of the previous day's treatment remained in his leg until he retired that night. He reported a good night's rest. Another treatment of 30 minutes was given, after which he was able to put his foot on the floor and bear some weight on his leg without pain, but I cautioned him not to walk on it. The third day he came back to the office, using a cane, instead of crutches. Five treatments were given in all and

he was able to discard his cane and went back to work. The ecchymosis remained but the pain and swelling were gone.

Case 2. J. D., 26 years, a prizefighter, had been severely punished the night before by a hard-hitting opponent. He complained of great pain over the left kidney region where he had been hammered unmercifully in his fight. It was so painful that he was unable to get any ease after using liniments, ice and hot water bags. He had taken several doses of aspirin and two large doses of paregoric. The pain was so severe that he was unable to straighten himself up. I gave him 20 minutes of diathermy, using a large block tin electrode over the kidney region, and one in front. After about 5 minutes he said, "Doctor, that surely feels good." After 20 minutes' treatment he was able to straighten up and walk without pain. He came back the following day and the same length treatment was given. He said he felt fine. I did not see him for some two weeks, when I met him in the street. I inquired as to why he did not come back for further treatment. He replied that the two treatments cured him so that he did not think it necessary.

Case 3. C. W., age 23, a college student, called me up to see him, stating that had an attack of pleurisy. He knew it was pleurisy for the reason that he had suffered with a severe attack some two years previous and was laid up some several months. Physical examination did reveal a pleural condition and I told him that he would probably be sick for several weeks this time. I strapped his side with adhesive, prescribed codein with salicylates, and let it go at that. The next day he 'phoned me that he was no better, and the following day I was again called to see him. He was suffering severely and was much discouraged over his fate. As he realized that he was in for a long spell. He asked very pertinently if there was anything that could be done for this condition which would get him well faster. It then dawned on me to try diathermy, as it had been recommended in such cases, and I suggested that we try it, but there was one disadvantage, and that was that he had to come to the office. He said he would try anything or go anywhere to get rid of his pain.

When I got to the office he was there. I told him that I would not guarantee anything, as I had never treated a case before, but that it was highly praised by others. I gave him a treatment by applying a large electrode of block tin to the back and front of the chest, using a current of mild density, gradually increasing to the point of tolerance. I left him to attend to another patient in another room, and returning after 10 minutes, when I was greeted by the words: "Gee, Doc, this is heaven! I can take a long breath and it does not hurt me." I was very much pleased myself to know that he was getting some relief. After 20 minutes of treatment he did not want to leave, as he felt so much better. He said "What am I to do if the pain returns?" I said jestingly, "Tough it out." He said if the pain came back he was going to call me for another treatment if it was the middle of the night. I did not hear from him, however, but he was the first patient in the office the next morning. He reported a very comfortable night but was anxious for another treatment. I gave him five treatments in all until all pain had ceased, but he insisted on taking ten treatments. He has never had a return of the pain and this case was treated May, 1923.

Case 4. D. R., aged 52, called me on the 'phone, asking if I could do anything for a case of sciatica. He had been told of my benefiting another patient with the same malady and was anxious to know if I could help him. I told him I would not guarantee a cure, but that he might take a few treatments and see for himself. He had had several attacks of this disease and had gone to Hot Springs, Ark., for the baths on several occasions. I placed him on the table, using a block tin electrode over the sciatic notch and one over the left side of lower abdomen, and gave him a 30-minute treatment, using a mild current. He felt some better and was able to put on his clothes without assistance, but his pain was still present. He did not show any marked improvement until after the fourth treatment, but from this one he steadily improved until fifteen treatments were administered, when he was all right. (I might say in all fairness that he was taking the salicylates and on the proper diet during this period, but he thinks the treatments greatly

benefited him and said that if he should have a return of the condition he would immediately return to me.)

Case 5. Mrs. J. S., aged 41 years, mother of two children, had suffered severely for some two years with a painful dysmenorrhea. During this time it was necessary for me to give her from one to three hypodermics of morphin during each attack. Her condition was distressing and as there was no apparent cause for her sufferings, I had advised that she consult a radiologist, with the idea of taking some deep x-ray treatments for bringing on an artificial menopause. In the meanwhile I had purchased my high frequency machine and I suggested that she try it. I told her to come down to the office two weeks before her next menstrual period, which she did. I gave her ten treatments, when she 'phoned me that her menses had come on during the night without any pain, and that she was flowing freely. I told her to call me if she had any pain, but she did not. I told her to take treatment again two weeks before her next period, which she did. Her period came on normally and without pain, and I suggested that a third series of treatments be given, and this was done. Five months have elapsed since the last treatment, making eight months in all since she has had any pain. Naturally she is a booster for diathermy.

Case 6. C. S., aged 20, came to the office suffering with wryneck. He assumed the usual attitude, every movement giving pain. I gave him 40 minutes of diathermy, followed by vibration, and he got immediate relief. I told him to come back the next day for treatment, but he did not. I met him some time afterwards and asked why he did not return and he stated that he did not think it any use, for the first one cured him.

Case 7. E. P. C., a married man, aged 40 years, came to the office suffering with an acute epididymitis, of some five days' standing. His testicle was greatly swollen and very painful. I had read that diathermy was indicated in such cases and proceeded to try it. I used a large block tin electrode over his back and a mesh one over the testicles. I gave a mild current for 20 minutes and all the pain was gone. The testicles were supported by a well-fitting suspensory, and he did not

have to go to bed. He took eight treatments in all, when the plain and swelling had all gone.

Case 8. Mrs. L. D., aged 56, was referred to me by one of our prominent nose and throat specialists. This lady complained of a trifacial neuralgia for six years. She had had several operations, without relief, and was taking from 4 to 6 grains of codein and from 30 to 120 grains of aspirin each 24 hours. She had come to the conclusion that nothing could be done for her except a Gasserian ganglion operation. She was referred to me for diathermy. I gave her through-and-through, current daily, the first five treatments aggravating the condition, but it did stop her eye from watering. About the tenth treatment she reported that she had not taken any medicine whatsoever and had slept comfortably for the first time in six years. I treated her for eleven weeks and all symptoms and pains disappeared. I had a letter from her a few days ago, saying that she had had no return of her trouble.

Case 9. R. H. had his hand cut in an electric fan. The primary wound healed promptly but he had considerable pain in the bone of the thumb and first finger. This went on for about six weeks and it troubled him so that he could hardly use his hand to sign his name. He was referred to me for electrical treatment and I gave him five treatments by diathermy, using the indirect method. All symptoms subsided and has never given him trouble since.

Case 10. Mrs. S., aged 47, complained of a pain in her right hip for about seven months. She had been treated along the usual lines without any result. She had even had an abdominal operation for the relief of this condition but it did no good. She was referred for diathermic treatments and I treated her for six weeks, with a combined method of diathermy and surging sinusoidal, which gave her absolute relief. She is able to walk any distance, do her own housework and even play golf—something she had not done for nearly one year.

The Importance of Knowing All Physical Measures

Physical therapy is at last coming into its own in the United States. Simon Baruch had to fight his way for the recognition and proper use of hydrotherapy, Rollier's and Finsen's fame blazed the trail for the extended application of phototherapy and heliotherapy, while a group of enthusiastic workers, like Massey, Snow, Titus and de Kraft were the outstanding figures in the tedious task of working out the physics, physiological action and indications and technic for the most important of physical therapeutic measures, electrical energy. The impetus of extended application during the war time period and the creation of foolproof highly efficient apparatus naturally helped considerably to "popularize" measures that were ignored or scoffed at a few years ago, but these same forces create a tendency now to lay too much or almost exclusive emphasis on some of the newer measures, like diathermy and ultraviolet, forgetting the use of time proven measures, the beneficent action of which cannot be duplicated by any other known measure. Perhaps it is the natural tendency of progress in medicine that every new measure should be first hailed as a panacea for almost every ailment and after a period of overuse be relegated either to the scrapheap or its otherwise proper place. Hydrotherapy, massage the use of passive exercise (Zander) apparatus has gone through these stages, and so have the older electrical modalities, galvanism, faradism, the static current and radiant light and heat. It seems that it might prevent undue disappointment and serve better the rational development of electrotherapy, if at this stage anyone contemplating its use would get his information about the definite indications and technic of the so-called older modalities along with his learning about the newer modalities. How ridiculous does it sound to the man doing all around physical therapeutics to have some enthusiastic colleague step up,—as happens almost daily—and declare "I have heard so much of diathermy and I want to use it extensively from now on. I never used any electricity before. Can you teach me all about diathermy, if I come to you

for a few days?" "How about the other modalities?" "No, I am not interested in anything else." What if an osteopath should suddenly turn to the practice of medicine and, walking up to an internist, declare that he wants to learn all about digitalis, this being the only drug which he intends to use? The enumeration of the merits of the older modalities at this time might encourage some old practitioners to make use of the old apparatus standing around idly in their offices.

(Editorial in Am. Jour. of Electro. and Radiol.)

Treatment of Erysipelas by Ultraviolet Rays

K. Prerovsky. Bratislavske Lekarske Listy, March, 1925. vol. 4, p. 231. The author summarizes his experience in thirty-five cases. Good results can be obtained only from doses sufficient to provoke a prompt and satisfactory hyperemia of the area affected by erysipelas, as well as of adjacent sound skin. The hyperemia dose varies according to individual skin sensitiveness and the intensity of the rays. By the author's technique the first dose averages five to ten minutes, the second ten to fifteen, at a distance of sixty to seventy centimetres from the burner of a Hanau lamp, without filter but with adjacent parts, as well as eyes, protected by a covering or linen. Sitzings are given daily. Cases treated early show a more favorable reaction than advanced ones, sometimes healing completely after one sitting. More frequently the clinical signs disappear the second or third day, lasting exceptionally to the fifth. Advanced, erratic, or complicated cases as a rule require protracted administration, four to seven days.

Under this treatment all complications are easily avoided. The healing effect is ascribed by the author to active hyperemia in the inflamed area and neighboring sound tissues, which attracts defense substances to the region suffering from the infectious agent. The ultraviolet ray does not seem to have here a direct bactericidal action, as it does in vitro, and it has no influence on the formation of antibodies or on the activity of phagocytes.—C. C. V.

Light Therapy

By C. M. WESTERMAN, M. D.
St. Louis, Mo.

Treatment of Dysmenorrhea

I happen to have an office in a large building, there are perhaps some 3,000 or 4,000 tenants in the building. Many stenographers come down to my office every month suffering from dysmenorrhea. They come down to their work in the morning not feeling well. They are not down two hours until they are cramped up double. They come down to the office and the nurse takes them and puts the deep therapy lamp on them, on the bare skin. They stay there for any time from half an hour up and they go back to their work absolutely relieved of dysmenorrhea. I don't mean cured, I say relieved.

When a woman comes into your office suffering from dysmenorrhea, she wants that pain stopped. You put that light on her. After you relieve her you can go on about your corrective treatment, because you have made a friend out of her, you have inspired her confidence by the fact that you have done something without giving medicine, that gave her almost instantaneous relief. That is a big thing.

In Psoriasis

Psoriasis is the most startling skin disease that I know so far as the recoveries are concerned. A boy came to my office recently; his entire back from his shoulders to below his waist line was one mass; the lesions had all coalesced on his chest and side. I don't believe I could have placed a silver dollar without touching a lesion of psoriasis. He was about the most terrible looking object I ever saw. It happened to be Saturday night. I gave him three minutes front and back and a minute on each side with that light.

He came in Monday night and I was standing across the room from where he was undressing. When he took off his shirt I couldn't believe it was the same boy. His skin was absolutely clean from that distance. When I got up close to him I could still see the lesions. I gave him two more treatments, and that

boy's skin was as clean as my own. It was one of the most startling results I have ever seen.

In Dandruff

A great many people suffer from dandruff. Since the women have started bobbing their hair they will find more and more dandruff in their hair. Two applications of ultra-violet will cure any case of dandruff that I have ever seen. That is a broad statement but I have never seen a case where two applications of the ultra-violet ray would not cure it. I sit them under the light and let them massage their hair, in other words, run their fingers through their hair all the time. Give them three or four minutes at about twenty inches distance the first application, five minutes the second and I don't think they will see any more dandruff. If they do, let them come down the third time.

A Book Review From India

Lectures, Clinics and Discussions on Electro-Physiotherapy.

"Held at Logan Square Masonic Temple, Chicago, Illinois, October 20 to 24, 1924. Under the auspices of H. G. Fischer & Company, Inc., Chicago.

"Of late Electro-Physiotherapy is forging ahead, steadily. Many medical men are interested in this new field of Medical Science. X-rays have diagnosed what the stethoscope could not. Ultraviolet rays, x-rays and diathermy have penetrated those parts which the surgeon's knife could not and they have cured ailments which could not be cured by ointments and balms. This new therapy is unique in not being very troublesome to the patient as well as to the medical attendant. The information about this subject given in this book are eagerly sought for by many a medical man. The clinics and case reports in this volume showing the development of minutae in technic, given by men who have specialized in various branches of medical and surgical electro-physiotherapy are really very interesting. Without doubt the material published in this book is a valuable addition to the literature of electro-physiotherapy."

(From the *Antiseptic*, Madras, India.)

Physiotherapy for Football Players

When the Haskell Indian football team arrived in Chicago, prepared to battle Loyola University in the end-of-the-season game, three of the star players of the Indian aggregation were pretty badly damaged, after a season of hard playing. Levi, Smith and McLain were in such shape, indeed, that the Haskell coach was gravely disturbed.

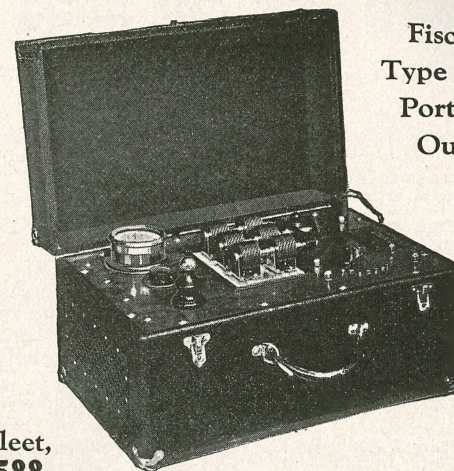
Having some knowledge of the uses of Physiotherapy, he got in touch with the Fischer Company, and diathermy treatments, together with quartz light irradiation, were prescribed and given to the three players. The relief they experienced was marked, and it is worthy of note that each of them went all the way through a grueling game after the treatments.

Effect of Ultra Violet Light on Intestinal Tuberculosis

In a series of eighty-one cases of intestinal tuberculosis complicating pulmonary tuberculosis reviewed by Erickson, 85.2 per cent had a favorable result following the use of ultra-violet light, as judged by entire relief or definite improvement in symptoms, and 14.8 per cent had no result or an unfavorable one. Of these cases, 24.7 per cent had entire relief of symptoms, 47 per cent were very much improved, and 13.5 per cent had definite though less improvement. This symptomatic cure or improvement has persisted in 85 per cent of the sixty-nine cases for four months, in 50 per cent for a year or so, and in 12 per cent for from three to four years. Pain, nausea and vomiting seem to be most effectively relieved, diarrhea is more persistent, and general digestive disturbances are still more persistent. It thus seems that ultraviolet light ray treatment is of definite value for the relief of symptoms in intestinal tuberculosis.

(From J. A. M. A.)

Fischer
Type "GP"
Portable
Outfit



Cost
Complete,
\$265.00

Speaking of Diathermy in Pneumonia, Harry Eaton Stewart, M. D., Says:

"This symptomatic relief is without question sufficient to justify the use of diathermy as one phase of the routine treatment of lobar pneumonia. We have sufficient data to indicate that the treatment also has a favorable effect upon the mortality figures and it is believed that one agent of great value in the treatment of pneumonia has been found.

"Apparatus which is both portable and inexpensive may be used wherever there is electricity. Nearly every physician who has used this technique, as well as the author in his private practice, has obtained mortality figures far below the usual. This fact should indicate that this method is not one dependent on any unusual degree of personal skill or experience, but one generally available to the profession at large."—Stewart, "Physiotherapy," pp. 265, 266.

For Reprints of Articles on Pneumonia, and full information as to Diathermy Treatment, write

H. G. Fischer & Company, Inc.
Physiotherapy Headquarters

2333 Wabansia Avenue

Chicago, Illinois

A PAGE OF FUN

He (ardently): "Have you never met a man whose touch seemed to thrill every fibre of your being?"
She: "Oh, yes, once—a dentist."

□ □ □

On safe ground. New Hampshire paper — "Friday, generally fair, probably followed by Saturday."

□ □ □

Abie—"Papa, what's science?"
Papa—"Don't be dumb like, Abie, it's them things like what says, 'Keep off the grass.'"

□ □ □

Diner—"Waiter, I can't find a single clam in this chowder."

Waiter—"That's nothing! You might just as well try to locate a set of wicker furniture in our cottage pudding."

□ □ □

Husband: "Telling lies is not one of my failings."

Wife: "No, dear, it's one of your few successes."

Student (to pretty co-ed): "So you are from Long Island?"

Co-Ed: "Yes, indeed—a Great Necker."

□ □ □

Boss—"Well, did you read the letter I sent you?"

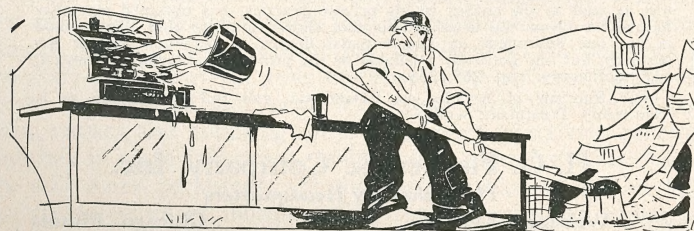
Office Boy—"Yes, sir; I read it inside and outside. On the inside it said, 'You are fired,' and on the outside it said, 'Return in five days,' so here I am."

□ □ □

A young woman, having decided that it was just at present the fashionable thing to know all about business and town industries, was being shown through a garter factory.

"Goodness!" she exclaimed, "ninety thousand pairs in one week! I don't see where they all go?"

"Neither do I," replied the young man who was guiding her, coloring slightly.



Janitor (Tipping pail of water into cash register): "Ach! Dot's goin' to run into a lot of money!"

Last Call for the January Physiotherapeutic Meeting

Monday, January 11, 1926

M. H. COTTLE, M. D., Chicago, Ill.

"Physiotherapy as Employed in Eye and Ear Work"

10:00 to 11:00 A. M.

GUSTAV KOLISCHER, M. D., Chicago, Ill.

"Diathermy in Medical Kidney Diseases"

11:00 to 12:00 A. M.

J. H. HAMMON, Vincennes, Ind.

"General Discussion of Physiotherapy"

1:30 to 2:00 P. M.

EDWARD C. HELWIG, M. D., Vincennes, Ind.

"Tonsil Clinic"

2:00 to 3:30 P. M.

Here is a program of exceptional interest to the physician who employs the physiotherapeutic modalities. Dr. Cottle's intensive study of Eye and Ear work has given him a wealth of material for this talk. Dr. Kolischer, always a popular speaker at any clinic, here offers a new subject. Doctors Hammon and Helwig have a proved tonsil technic that has been successfully employed in hundreds of cases. Ample lecture hall and clinic facilities have been provided so that every visitor may be assured of a seat. There is no fee, of course; every M. D. interested in Physiotherapy is cordially invited.

H. G. FISCHER & CO., Inc. Phone Armitage 0323

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