FISCHER'S MAGAZINE

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H. G. FISCHER & CO., Inc.

MAY, 1923

Tongues in Trees,
Books in the Running Brooks,
Sermons in Stones
And Good in Everything.

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.

H. G. FISCHER & Co., Inc., 2333-43 Wabansia Ave., Chicago, Ill.

Vol. I MAY, 1923 No. 8

Editorial Comment

Home of Fischer's Magazine

Judging from the volume of correspondence received daily, by the friendly comment, the constructive criticism and the number of helpful suggestions offered, "*Fischer's Magazine*" is proving of exceptional interest.

This is our eighth issue—what do you think of it? Have we fulfilled our desire to make each succeeding issue of more therapeutic value than its predecessor?

We want more copy—we want to pass along every good idea that is submitted—we want to circulate original articles on the latest and best Physiotherapy technique.

Your success with your Fischer Apparatus has been directly dependent upon two things:

The technique you have developed from your own actual use of the equipment, and the limited amount of general information that was available when you purchased your machine.

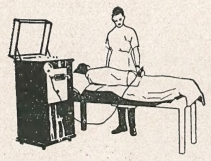
There are hundreds of doctors who are in exactly your position. Don't you think that some mighty valuable information could be exchanged if you had an opportunity of talking to each of them? Certainly, time and expense would not permit this, but, without any cost to you we are attempting, through the medium of "*Fischer's Magazine*" to provide an excellent substitute.

Let us hear from you—everyone who reads this. Do not think that because you are achieving success along a certain line with Phsiotherapy treatments that such technique is common knowledge. Many of your brother physicians might just be looking for a similar idea.

SEND ON *YOUR* CONTRIBUTION, *NOW*.

Diathermy Suggestions

Dr. Elnora C. Folkmar, Washington. D. C.



Dosage in Diathermy is a thing that can be learned only by experience. In treating small areas with local diathermy, the number of milliamperes of current should never exceed 100 to each square inch of the active electrode. In most cases the comfort of the patient is the best guide.

The duration of a treatment will depend on the condition to be treated, as well as the patient. Treatments vary in duration from 5 minutes to 1 hour.

Frequency of treatment also depends on the condition to be treated and the ability of the patient to come for treatments. In most cases daily treatments are advisable at first, then thrice weekly, later twice, and then possibly once each week.

Diathermy is not a panacea for all diseases, yet its indications are many. It is a most excellent adjuvant to many other therapeutic measures, and in many cases it is the indicated therapeutic agent par excellence. For diathermy is heat, and heat only—and heat is necessary to life, to health, to function. Heat is necessary to repair in injury to the restorative processes when disease is present, and diathermy furnishes this needed heat where it is wanted, and when it is wanted, without taxing the heat regulating forces.

Electro-Coagulation of Tonsils

T. Howard Plank, M. D.

The reduction of hypertrophied tonsils as well as the destruction of badly diseased tonsils with high frequency currents is more and more demanding the attention of the general practitioner who first sees the vast majority of these cases. When one considers the growing antipathy toward their removal by surgical means there is increasing need of investigating other methods of treatment.

It is a bloodless operation that can be performed in one's office and requires but a few minutes. The pain occasioned by the treatment can be controlled by any good local anesthetic. The writer uses a two percent of all except Butyn which can be used as low as one-fifth of one percent and all without danger of toxic effects if cocaine is omitted from the list as it should be. The local anesthetic should be injected into the tonsil as well as the peritonsillar tissues.

All tonsils needing treatment can be taken care of with the high frequency currents. This includes everything from the simple hypertrophy, the repeatedly infected, inflamed tonsils, those badly diseased and abscessed, to the malignant tonsils, and it makes no difference whether the malignancy is of the sarcomatous or carcinomatous type providing the diseased tissues are electro-coagulated. It makes no difference whether the tonsils are acutely infected or long since chronically so. The high frequency treatment of badly infected tonsils need not be delayed until the infection can be abated by some other means as it is sometimes necessary to do before cutting operations.

Hospitalization of the patient is unnecessary as it is purely an office treatment excepting malignancies. Preoperative sterilization of the throat is wholly unnecessary as the current does that by the best method known to the world

today—excessive heat. Post-operative sterilization is best accomplished by the use of actinic rays from a water-cooled, quartz-mercury lamp. All bacteria are killed by a temperature above 160 degrees F. and one has no trouble raising the temperature of the tonsil to 212 degrees F or higher.

The treatment by electro-coagulation with high frequency currents is bloodless, hence there is no need of hemostasis or hemostatics. The only articles needed besides the machine (which for this work should have a capacity of about 1000 milliamperes) will be a pair of good flexible conducting cords with sufficient insulation to prevent leakage of the current and of sufficient length to reach the patient easily, a good foot switch for the direct control of the current by the operator, a good hard-rubber handle of convenient size and length capable of holding a pliable needle of sufficient length to reach the tonsil without effort, and a wooden tongue depressor. If the tonsil is hidden behind the anterior pillar, a blunt hook or retractor will be needed so an assistant can hold the pillar out of the line of vision and away from the current. Any non-conduction material can be used for the depression of the tongue. If it is desirable to insulate the needle, it is easily accomplished by slipping small rubber tubing over it, covering all but the distal inch which should be as sharply pointed as it is convenient to handle.

The actual treatment is as follows: anesthetize the tonsil and peritonsillar tissues; set the high frequency machine to deliver about 300 milliamperes of D'Arsonval current which is sufficient for simple hypertrophies (use about 600 milliamperes if destruction is desired); have the patient sitting where a good light can be thrown into the throat; have the foot switch at a convenient distance; have one pole of the current going to the patient's hands (an auto-condensation handle is best for this). Now with your needle-holder and tongue depressor you are ready for action. If mere reduction in size is wanted, lay the needle on the tonsil and step on the foot-switch, watching carefully the action on the tissues, and as soon as the tissues commence to blanch stop and move

the needle to a new area and proceed as above until all areas are equally treated, at which time the patient is ready to go about his regular duties.

However, if you wish to destroy the tonsil, use the stronger current and insert the needle into the tonsil tissue about one-fourth inch, then proceed as before, again watching for the blanched appearance which will take a slightly longer time (a few seconds only), and will mean that the tissue around the point of the needle has been coagulated and destroyed. Now reinsert the needle into a new area and continue until the desired destruction has been accomplished and again your patient can go about his daily occupation.

The destroyed tissue will come away in about ten days, of its own accord. Do not attempt forcible removal or you will start bleeding. One treatment is usually sufficient; however, if not, another can be given a month later. The actual working time for both tonsils should not be over five minutes.

1612 Heyworth Building

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From 12 to 14 years have been added to the average human life in the last half century, due to the progress of medical science. But 600,000 persons still die in the United States annually from preventable diseases.

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When the question of supplies and accessories comes up—just write FISCHER. Put your dependence where you know you may.

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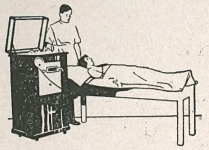
The denial of the employment of physical measures to those who suffer is sustenance to the quack. The adoption of these measures by the medical profession will do more than anything else toward driving the isms out of the practice of medicine.

Diathermy in Pneumonia—a Report of Ten Cases

By Harry Eaton Stewart, M. D., New Haven, Conn.
Consultant in Physiotherapy, U. S. Public Health Service



These cases are from my consulting service in the U. S. Marine Hospital, No. 21, New York, reported by permission of Col. George B. Young, Medical Officer in Charge. There have been reported heretofore a number of cases of pneumonia, treated by diathermy. In most, if not all, of these cases there was lacking the laboratory reports, clinical records, etc., which largely obviated these reports being accepted at their face value. You do not need to be reminded of the extreme caution that must be exercised in accepting any treatment as specific in this disease, which varies so greatly in type and mortality in different seasonal epidemics.

Diathermy is a form of conversive heat, generated deep in the tissues between the poles of the D'Arsonval type of high frequency current. The machine used was of the portable type, capable of delivering up to 2500 milliamperes of current.

The current was turned on slowly, the rheostat slowly advanced until a maximum of 2000 milliamperes was reached in about four minutes. This was continued for twenty minutes and slowly cut down in about two minutes.

There are at least eleven different and distinct techniques in the use of diathermy. The technique used in all of these cases is the through and through bipolar method, with flexible composition metal plates, about 4x7 inches, placed directly over the affected lobes anteriorally and posteriorally. A hot shaving soap lather was applied to the skin and electrodes. The patient lay on the posterior electrode, supported by a pillow, the anterior one was held gently, but

firmly, on the chest wall. The enthusiastic cooperation of the hospital staff aided greatly in carrying out this study. The physical findings in each case were made by the Ward Surgeons, Dr. Trimmer and Dr. Boland, and the Chief of the Medical Service, Major Bryan. The X-rays were taken in the hospital laboratory. The laboratory findings were made by the chief of that service, Dr. Taylor, and the only function of the Department of Physiotherapy was to give the treatments. The head aide, Miss Cargill, gave all the treatments personally. The cases selected were nearly all those, which in the opinion of the Medical Chief, were in an extremely critical condition. Complete physical and laboratory findings in each case I have here if any of you are interested in looking them over. A complete reading of them would extend the time far beyond that allowed for the paper. I will, however, read a brief summary of each case.

Case I. G. L., 39, white, merchant seaman. Family history: one brother died of tuberculosis. Past history: negative.

The patient was admitted to the hospital January 7, 1922, and had a chill that evening.

Physical findings showed congestion of entire left lung, a few scattered râles on the right, otherwise negative. Sputum showed streptococcii, no pneumonocci.

X-ray examination: showed the entire left chest dense and heart displaced to the right, suggestive of fluid. Tapped twice, no fluid obtained.

Diagnosis: *Lobar pneumonia.* On the 5th day of the disease, patient's condition very bad, the relatives were notified. *Diathermy* was started in hope that it might help him. Temperature started down by lysis immediately after treatment. Treatment was continued twice a day for six days and then once a day. The most striking thing about this case was the immediate relief of pain and distress, and the improvement in the circulation. He apparently began to improve steadily from the first treatment and has made an uninterrupted recovery.

(Continued on page 10)

Case II. C. M., 24, white, merchant seaman. History: entered hospital January 24th. Complained of headache, sore throat, and pain in extremities. Pain in right chest. Temperature 103°. Pulse 112°. Respiration 24.
Physical examination: tonsils slightly enlarged and reddened. Heart normal. Lungs, to-and-fro friction rub at left base posterially. A few fine crepitant râles at angle of left scapula, otherwise negative. Sharp variations of temperature for two days, simuated malaria. Two blood smears negative. Wasserman *four plus*. Urine negative. *January 27th*, area over chest below right scapula over which the percussion note was dull. Broncho-vesicular breathing, with numerous fine crepitant râles. Diagnosis: Broncho pneumonia.
X-ray examination: January 28th. Increased density, lower lobe of right lung.
Diathermy began on the 28th and continued daily. Temperature dropped permanently on the 29th and he made an uninterrupted recovery. X-ray, January 31st, three days after the first one showed marked clearing in the involved area of the right lung. Marked relief varying from two to four hours followed each application of diathermy, noted by the nurse and the ward surgeon.

Case III. A. H., 37, white, merchant seaman. Family history: negative. Present illness: admitted hospital January 19th. Two days before entering had a severe chill, pain in extremities and back and headache. Extreme prostration and cough. On entering the hospital temperature was 101°, which rose to 104° within seven hours.
Physical examination: heart normal. Coarse bubbling râles over both bronchi, a dullness over base of the left lung. Breath sounds harsh through entire left lung. *January 21st*, patient's condition much worse, pulse 136, and thready, respiration 44 and labored. Chest showed well developed lobar pneumonia at right base and pleurisy with effusions at the left base, W. B. C. 46,000, 82% polys. *Diathermy* applied three times, twice during day and once at night on

the 21st. Patient showed temporary improvement that was marked. On the 22nd, the patient developed hemorrhagic rash on the back and upper extremities. General condition, critical. Patient died on the 22nd, 8 P. M. Blood culture 18 hrs. incubation showed streptococcus veridans septicemia.
Autopsy: lobar pneumonia on the right, central pneumonia on the left, pleurisy with effusions on the left, septicemia. In the pleura an exudate about 1-8th inch thick, which covered the pleura.

Case IV. W. S., 19, white, merchant seaman.
History: had a chill day before entering hospital. Admitted January 19th. Temperature 104°, pulse 105, respiration 36. Acutely ill.
Physical signs: percussion note dull over area below left scapula. Fremitus increased. Distinct broncho vesicular breathing with a few fine crepitant râles. January 20th. Examination showed clear-cut lobar pneumonia. Left lower lobe. Sputum examination. Pneumococci type 4. Wasserman negative. White cell count 28,600, 78% polys.
Diathermy began on the 22nd and repeated twice daily. Patient was delirious from the 21st to the 23rd. Temperature fell by lysis, recovery was uninterrupted.

Case V. E. R., 26, white, merchant seaman.
History: admitted February 3, 1922. Taken with frontal headache, weakness, severe pain in left chest the previous day. Pain on inspiration or coughing.
Examination: Throat negative, chest, left base posteriorally a loud friction rub. Harsh breathing over both bases. Given mustard plaster, aspirin gr. 10 q.4 h. and amon. carb. and cod. p.r.n.
The next day left base gave bronchial breathing whispered pectoriloquy and dullness almost flat.
Diagnosis: *Lobar pneumonia.* Type IV pneumococcus.
Diathermy started twice daily which lessened pain. On the 7th the right middle lobe became involved and real double

pneumonia developed. On this day condition reported desperate, patient "filling up." Greatly improved by two diathermy treatments three hours apart and temperature began to come down by lysis reaching, normal on the 10th.

Case VI. G. S., 32, white male, merchant seaman.
History: had chill and became ill two days ago. Admitted February 13th, 1922.
Examination: chest showed patch of consolidation below right scapula. Bronchial breathing.
Diagnosis: *Lobar Pneumonia.* Type IV (February 15th.) *Diathermy* twice daily with improved symptoms and fall of temperature by lysis.
Lab. *Urine* negative for albumen or sugar.
X-ray of chest showed mottling and fibrosis of right lung suspicious of T. B.
Sputum negative for T. B. Pneumoccus Type IV.
Blood w.b.c. 21,200, 82% polys.
Temperature reached nearly to normal February 18th. Diathermy discontinued.
March 3rd. Left lung became involved. Many râles in right base still.
Diathermy twice daily. Irrational two days with high fever which returned to normal on the 8th and 9th, followed by rapid recovery.

Case VII. J. R., 37, white male, merchant seaman.
History: very ill for several days. Admitted Feb. 16th, 1922.
Examination: right base flat, bronchial breathing. Patient cyanotic, pulse 120. Temperature 103.4. Prune juice sputum.
Diagnosis: Feb. 17. *Lobar pneumonia:* Sputum Type IV pneumococcus.
Diathermy twice daily begun at once.
Temperature started down immediately by lysis, with general improvement.
Urine Sp. Gr. 1027 Alb. trace pus present.
X-ray upper right lobe dense.
Sputum negative for T. B.
Made a slow uninterrupted recovery.

Case VIII. O. Y., 28, mongolian male, foreign seaman.
History: felt ill three days before admission on Feb. 22, 1922.
Examination: chest shows râles and harshness throughout. Cardiac mitral murmur. Left base harshness and bronchial breathing.
Diagnosis: *Lobar pneumonia.* Type undetermined. *Diathermy* twice daily. Lab. reports: blood hemoglobin 100%, white blood cor. 10,000. Wasserman, Neg.
Temperature started down by lysis after the first diathermy treatment. Recovery rapid.

Case IX. A. H. B., 31, white male, merchant seaman.
History: acutely ill four days before admission Feb. 23, 1922.
Examination: scattered râles and harsh respiration throughout chest. Pulse 96, Resp. 36, temperature 105. Dyspnoeic and cyanotic. Suspected influenza. Feb. 25 developed dullness in right base with bronchial breathing. Cyanosis more marked. Resp. 40 and shallow. Pulse 112.
Diagnosis: *Lobar pneumonia. Diathermy* twice daily. Lab. no virulent pneumococci. Blood hemoglobin 75%, w. b. c. 10,000.
Feb. 26: heart enlarged to left. Mitral systolic murmur. Patient irrational. Temperature came down by lysis after the first diathermy treatment. Recovery rapid and uneventful.

Case X. W. McD., 52 white, male, merchant seaman.
History: slightly ill for two days. Admitted March 4.
Examination: right chest anteriorly shows dullness, prolonged respiratory note. Friction rub posteriorly with a few râles.
March 6th: dullness increased at right base, vocal fremitus bronchial breathing.
Diagnosis: *Lobar pneumonia. Diathermy* started twice daily to March 13th with steady improvement in all symptoms and temperature drop by lysis. Lab: *Urine* Sp. gr. 1023. Sugar negative. Albumen trace. *Sputum*, unsatisfactory for typing.

March 15: much improved, diathermy once daily. Recovery rapid and uneventful.

Conclusions: The results in these cases are suggestive that diathermy may have an influence in hastening recovery in pneumonia. The evidence is not at all conclusive. In several of the cases the diathermy was not instituted until in favorable cases the temperature might be expected to start downward, but it is the opinion of the medical staff who selected these as test cases that diathermy helped in their recovery. When we have had many more cases to report on, we hope to be able to make a more definite statement, but this much we do know, that in *every single case* and in almost every single *treatment* the temporary effect upon the patients was remarkable. Cyanosis disappeared. The expiratory grunt when present was markedly lessened or stopped entirely. Respirations were less labored and the patient received from two to four hours of very marked relief, in many cases obtaining sound sleep. Now diathermy has been ordered as soon as the diagnosis is made in every case of pneumonia at the Marine Hospital.

It is not too much to assume that in many critical cases this marked relief of symptoms may be the turning point in disease. Under proper technique there is no danger of ill effects from two or even three diathermy treatments per day. The proper technique is of the greatest importance. The fall of temperature takes place by lysis where diathermy is used.

Pneumonia attacks all ages and the rugged as well as the weak. The death rate is so high that any method of treatment which will lessen it to any extent would be invaluable. The results of this work are sufficiently encouraging to justify the wider employment of diathermy in this disease.

420 TEMPLE STREET.

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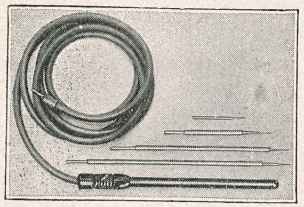
He who slurs physiotherapy strikes a blow at the house in which he lives.

A New Surgical Diathermy Electrode

Suggested by Dr. T. Howard Plank for electro-coagulation operations—especially tonsillectomies. It is small, very light in weight and exceptionally handy for this work. The operator's hands are out of the line of his vision, entirely, when making the application.



A very flexible rubber covered cable is securely fastened directly into the polished hard rubber handle, and is sufficiently insulated that it may be wound around the hand and arm, or allowed to lay against the face of the patient with absolutely no danger of shocking.

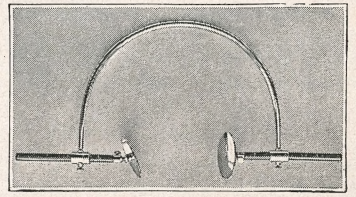
There is no exposed metal anywhere with the exception of the active tip. Four tips of different lengths are furnished as illustrated.

Catalog No. 862—Code SALLY—Price..... **$5.00**

Fischer Improved Diathermy Clamp

An aluminum casting, smoothly polished and light in weight, arranged to support two disc electrodes—one on each side.

The electrodes proper are supported on hard rubber handles which are adjustable to fit any size part to be treated. The discs are mounted on swivel ball joints, making the entire assembly a very convenient and useful device.



Catalog No. 867—Code SALTY. Price, complete.... **$12.00**

A PAGE OF FUN

Puzzle—Find the Frog

Absent-minded Professor: "I will now show you the internal structure of a frog—"

Same party, after opening a package disclosing a hamburger sandwich: "M-m-m I was sure I ate my lunch a few moments ago".

—Literary Digest.

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She knows Him

Jack: "I think I have a cold or something in my head."
Genevieve: "Must be a cold".

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The Inspired Compositor

There is one honest brokerage house. It advertises: "Let us place your name on our wailing list."

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Sarcasm

Doctor: "You have been at death's door, and only your strong constitution has saved you."
Patient: "Remember that when you send in your bill."

De Mortius

"Took a walk through the cemetery today, and read the inscriptions on the tombstones."
"Well, what about it?"
"Was wondering where all the wicked people are buried."

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More Apropos

The notice in the rooms of hotels which reads, "Have you left anything?" should be changed to "Have you anything left?"

—Detroit Motorist.

And so let us be Cheerful,
Without Regret for the Past,
With Contentment in the Present,
And with Strong Hope for the Future.