

FISCHER'S MAGAZINE

DECEMBER
1923

351

THIS BOOK
IS THE PROPERTY OF
H. G. FISCHER & CO., Inc.

THE SUCCESSFUL MAN
DOESN'T MEET CIRCUMSTANCES—
HE MAKES THEM.

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.*

Copyrighted 1923 by

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

Vol. II

DECEMBER, 1923

No. 3

Christmas emphasizes many
truths to all of us

True friendship is one of the world's
richest blessings. Kindness melts away
frowns, scowls, worries, hard feelings.
Real happiness comes through making
others happy.

It gives us great pleasure to extend to
you, doctor, our choicest good wishes
this Christmas period.

May every minute of the day fairly tingle
with good cheer.

H. G. Fischer & Co.

DOCTOR—are you interested

In new and approved Physiotherapeutic technic?
 In new developments in Medical Electricity?
 In getting the other fellow's viewpoint?
 In practical Physiotherapy demonstrations?
 In learning of new developments each month?
 In learning how to get the best of returns from your equipment?

? ? ? ? ? ? ?

The second Wednesday of each month hereafter will be set aside at the Fischer Plant for demonstration and clinic purposes.

This is being done as a result of numerous suggestions from our readers and we feel sure there will be a hearty response. You are welcome any day—every day—come when you can—but this one day each month is to be "Physician's Day." You will be assured of hearing at least one good talk, seeing several demonstrations, clinics when possible and advisable, and a program of interesting events throughout the day.

Help us—come in if you can, or send us some of those questions that come up so often and let's thrash them out at these meetings. The answers, when of sufficient import, will be published in these pages and all interested may benefit therefrom.

Individual subjects will be assigned to certain physicians and proper announcement made in these columns regarding the coming month's program.

Now Doctor—don't leave everything to the next fellow—let us have YOUR opinion. How does this suggestion strike YOU? ?

Instructive Successful Results in Fourteen Successive Cases of Pneumonia Treated with Diathermy

**Marked Relief from Cyanosis and Painful, Labored
 Breathing Immediately Following Treatment**

Does Not Interfere with Other Lines of Treatment

By HENRY V. BROESER, M. D.
 105 Newark Street, Hoboken, N. J.

Decongesting the Congested Lung

In the treatment of pneumonia we aim to decongest the congested lung by counter irritation, cupping, application of heat to the chest and the like. There is no reason why diathermy should not accomplish as much as Dr. Broeser claims, and more. This is shown by the series of instructive cases presented in this interesting paper.—Eds.

DIATHERMY is a form of physical therapy in which the generation of so-called internal heat is utilized. When a rapidly alternating current of electricity (high frequency) is conducted through resisting tissues, heat is generated along the path of conduction in proportion to the strength of the current and the resistance of the tissues. The current of electricity changes its direction so rapidly that excitable tissues are not stimulated nor does ionization or electrolysis occur. This form of heat because it originates within the tissues and is not brought from without as in the application of heated objects or thermic lights is called internal heat or diathermy.

The rationale of the use of diathermy in disease depends upon the well-known fact that any measure which supplies heat to a part or raises the temperature en masse will cause

a dilatation of the capillaries with resulting hyperæmia; increased cell nutrition and acceleration of the chemical reactions constituting the cell metabolism of the part and hence increase the "locales resistiones" which will also allow for a more rapid drainage from that part.

High Frequency Treatment in Medicine— Surgery—Pneumonia

The use of high frequency currents in medicine was first suggested by "Nikola Tesla" in a paper in the *Electrical Engineer*, December, 1891. The physiologic properties of these currents were investigated in a series of researches by D'Arsonval in 1898. In Sept., 1907, Nagelschmidt, a Berlin physician in Dresden, stated that high frequency currents caused a "heating through" of the tissues and recommended their use in the treatment of joint and circulatory diseases. Since then there has appeared a considerable literature on the use of high frequency in medicine and surgery. Little attention was paid to the reports of its use in pneumonia, since for the most part they were deficient in laboratory, clinical and X-ray data to make the records convincing. In October, 1922, Dr. H. E. Stewart, of the U. S. Public Health Service, reported a series of ten cases of pneumonia occurring in the U. S. Marine Hosp. No. 21, New York, in which diathermy was employed. All the patients except one recovered by lysis. The single fatality was a case of bilateral pneumonia, empyema and streptococcic septicemia.

The writer does not wish to imply that in diathermy there is a specific for pneumonia, the following is merely a record of his experience with this therapeutic agent in fourteen successive cases of pneumonia. These cases were taken from his consulting practice as Roentgenologist and Physiotherapist to St. Mary's Hosp., Hoboken, N. J., St. Francis Hosp., Jersey City, and North Hudson Hosp., at Weehawken, N. J. The physical findings and diagnosis in each case was made by the physician in charge who prescribed medical treatment in conjunction with the diathermy which was

administered by the writer. Radiographs were taken in the beginning and in the course of the treatment to determine the influence if any, on the rate of resolution of the consolidated lung.

Summary of Procedure

Flexible electrodes, 4x7 inches composed of blocked tin gauge 22, are placed one anteriorly right, the other posteriorly left, over the part of the chest corresponding to the pneumonic lung. A hot shaving soap lather is applied to the electrodes and the skin. A bed sheet folded one foot wide placed around the chest supports the electrodes. Under the posterior one a small cushion is placed to allow more comfort to the patient. The machine used is of the portable type capable of registering 4,000 M.A. of current. The current is slowly turned on until the maximum M.A. is reached, allowing about four to five minutes for this procedure. By the maximum is meant the strongest current the patient will tolerate, usually between 1,500 and 2,000 M.A. For 20 minutes the current flows, then it is gradually reduced to zero, allowing three minutes for this procedure. *Best results are followed by the early morning treatment.*

Case Presentation

1. Case of Dr. Pyle and Dr. Kerdasha, St. Francis Hosp. C. B., male, white, 39 years; laborer.

Past History: Pneumonia at the ages of 20 and 32, no sequelæ.

Present Illness: On March 22, patient was seized with a pain in the left side, chill, sweats, headache, cough and shortness of breath.

Physical Exam.: Nutrition of patient very poor, marked cyanosis, lower left chest shows dullness, increased tactile and vocal fremitus, rales and bronchial breathing with pectoriloquy. Temp., 104; pulse, 120; resp., 40; blood pressure, 106-40.

Lab.: W. B. C. 14,000 Type Pneumonia IV.

X-Ray: Lower left lobe is dense and cloudy. On the fourth day of the disease diathermy was started. The patient received four treatments and made an uneventful recovery by lysis.

2. Case of *Dr. Klein, Middlesex General Hospital, New Brunswick*. F. K., female, white, 29 years, housewife.

Past History: Measles, scarlet fever and diphtheria as a child, no sequelæ. Recurring attacks of tonsillitis, otitis media.

Present Illness: On March 25 patient complained of pain in the chest, cough and headache. Entered the hospital March 26.

Physical Exam.: Patient is delirious; there is cyanosis, marked dyspnea, involuntary passage of stools and urine. Temp., 104; pulse, 120; resp., 48. Dullness over the entire left lung, rales, bronchial breathing.

Lab.: W. D. C. 23,500, R. B. C. 4,000,000 Hb 70%, P. 77%, S. L. 18%, L. M. 2%, T. 1%, E. 2%. Type 2 as shown by mouse inoculation.

X-Ray: Entire left lung dense, obliteration of the left diaphragm and costo-phrenic angle. Diathermy was instituted March 28. Temperature started down by lysis immediately. Recovery was uninterrupted. Sequelæ: otitis media.

3. Case of *Dr. Spath, Hoboken, N. J.* V. G., male, white, 35 years, houseman.

Past History: Unimportant.

Present Illness: On March 28 there was chill, pain in the chest and cough.

Physical Exam.: Patient is delirious. Temp., 104; pulse, 140; resp., 40. Over the right lower lobe there is dullness, increased fremitus, rales, bronchial breathing and pectoriloquy.

Lab.: W. B. C. 26,400, R. B. C. 4,240,000 Hb 85%, P. 81%, S. L. 14%, L. M. 2%, T. 2%, E. 1%. Sputum negative for T. B. Type Pneumonia IV.

X-Ray: Lower right lobe is dense, there is an obliteration of the diaphragm and the costophrenic angle.

Diathermy was started on the sixth day of the disease. The patient received two treatments per day for the next five days. Following the first treatment the temperature began to go down by lysis. Subsequently empyema developed, for which patient was operated upon and recovered.

4. Case of *Dr. Spalding, North Hudson Hospital, Weehawken, N. J.* A. B., female, white, 33 years, nurse.

Past History: Unimportant.

Present Illness: On March 14 patient complained of chill, pain in the chest, cough and prostration.

Physical Exam.: Patient is obese and cyanotic. There is marked abdominal distention. Temp., 104; pulse is intermittent and 112; resp., 32.

Lab.: R. B. C. 3,900,000 Hb 60%, W. B. C. 6,000, P. 90%, S. L. 16%, L. M. 4%.

There is dullness, increased fremitus, rales and bronchial breathing over the upper and middle right chest anteriorly.

X-Ray: Clouding of the upper and middle right lobes.

On March 20, the sixth day of the disease, diathermy was begun. Patient made an uneventful recovery by lysis.

5. Case of *Dr. Opdyke, Jersey City, N. J.* P. W., male, white, 26 years, auto salesman.

Past History: Pneumonia, 1921.

Present Illness: Patient complained of chill, headache and cough.

Physical Exam.: Patient is delirious and cyanotic, abdomen is distended with gas. Temp., 104; pulse, 110; resp., 40. There is dullness, rales and bronchial breathing over the right lower chest.

X-Ray: Right lower lobe dense. Obliteration of costophrenic angle.

On the fifth day of the disease diathermy was started. Recovery by lysis complete.

6. Case of *Dr. Londrigen, Hoboken, N. J.* A. E., female, white, 42 years, housewife.

Past History: Negative.

Present Illness: Pain in the chest and labored breathing on March 12.

Physical Exam.: Temp., 103.8; pulse, 116; resp., 32. There is dullness, rales and bronchial breathing over upper and middle part of the right chest.

X-Ray: Clouding of the upper and middle part of the right lower lobe.

On the fourth day of the disease diathermy was instituted. Temperature immediately dropped by lysis.

7. Case of *Dr. Spath, Hoboken, N. J.* A. W., female, white, 24 years, housewife.

Past History: Pneumonia, 1918.

Present Illness: On March 31 patient complained of chills, headache and difficulty in breathing.

Physical Exam.: Temp., 104; pulse, 140; resp., 44. Patient is markedly cyanotic and restless. There is dullness, rales, bronchial breathing and pectoriloquy left lower chest.

Lab.: W. B. C. 19,200, P. 86%, S. L. 8%, L. M. 1%, T. 5%. Pneumococcus Type 4.

X-Ray: Clouding left lower lobe.

On the third day of the disease diathermy was started and temperature began to recede immediately by lysis. Recovery uneventful.

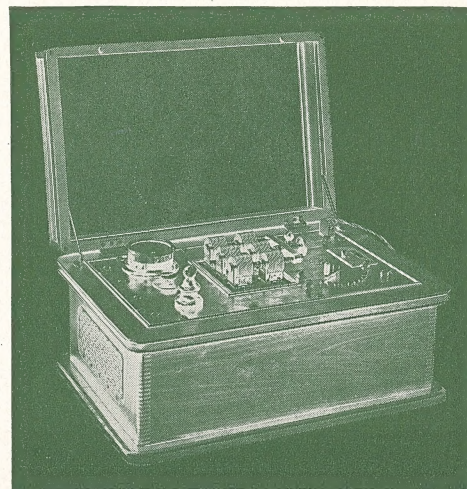
(We will mail you copy on the remaining seven case reports on request.)—H. G. Fischer & Co., Inc.

Comment

Following the use of diathermy in thirty cases, fourteen cases of lobar pneumonia are recorded, the temperature immediately fell by lysis within a few days. The ages of the patients treated ranged from $2\frac{1}{2}$ to 72 years. Most of the cases presented poor prognosis as cyanosis, tympanitis, low blood pressure, incontinence of feces and urine, obesity and comparatively low leukocytic reaction. In all the cases

(Continued on page 10)

Treating Pneumonia Right in the Home with the FISCHER Type "G" Portable Diathermy Apparatus



Catalog No. 1251

Simple—Convenient—Effective

It is truly PORTABLE—weighs only 50 pounds.

EFFICIENT—4000 Milliamperes available.

SAFE—Perfectly insulated, and furnished with an accurate M. A. Meter. May be used with full efficiency on any house wiring of 110 Volts, 60 Cycles.

Price complete, ready for use in the office or home, \$275

Write us for descriptive brochure

H. G. FISCHER & CO., Inc., 2333 Wabansia Ave., Chicago

immediately following the treatment there was noted a marked relief from *cyanosis and painful and labored breathing*. The patients rested well, the majority sleeping a few hours. The evidence at hand however is insufficient to draw any justifiable conclusions as to the influence of diathermy in pneumonia. The author hopes that this therapeutic agent will receive a more thorough scientific investigation as to its merits and a more *universal* and *early* use with a view of determining whether it has a place in the treatment of pneumonia.

Controversy as to priority of claim and use of machines can be regarded as inconsequential. My answer is, that the physician treating the most number of cases with the best results following scientific steps as to history, blood pressure, blood count and radiographic examination (without undue handling of the patient while taking the radiograph as a rule the anterior posterior position is the only one that can be taken) followed by diathermy every one, two or three times daily according to severity. *The earlier the case is started on the diathermy the better the results.* If animal experimentation can be carried out, so much the better. Urine and also the sputa should be obtained as soon as possible to ascertain the type of the pneumonia.

As to the high frequency machine it should be one capable of producing 2,000 M.A. at a short damp spark gap regardless of the manufacturer, and there are many machines on the market not capable of doing this, thus useless in this particular line of work. It is known that the larger the spark gap the more interruptions, thus more farridism and voltage with annoyance to the patient. What we want in the treatment of this disease is heat sent into the lung substance, a painless process.

I do not believe that diathermia is a specific in the treatment of pneumonia, but do believe and know that it is supportive in character, it does not interfere with any line of treatment. All I ask is that the profession prove its usefulness. The results in these cases were all good, ages ranging from two and a half years to seventy-two years of age.

Electrotherapeutics in Urology

Victor Cox Pederson, A. M., M. D., F. A. C. S., New York

(Abstracted from the New York Medical Journal)

* * * Lincoln said that the only people he did not like were those he did not know. Most physicians seem guilty of not liking any new method of treatment which they do not know. Conservatism, reserve and caution are sound when based on a willingness to study, try and then judge. But blind prejudice, radical denial and arrogant complacency with methods already in vogue are unsound, because they have again and again been the bases of cults which have in the end compromised the medical profession. * * *

Like Lincoln's new friends, most of us like new methods after we have learned them. A familiar example is that the medical departments of the United States actually ignored and refused to adopt physical methods of all kinds—until they knew them through the result among the European forces. The Government has learned the worth of a new friend—Physiotherapy * * *.

Electrotherapy, which is only one department of Physiotherapy, can no longer be repudiated. Those who deny its value will soon be like the professor of 1850 in his disregard of the atomic theory. Those who regard it as a quick cure-all will be like the dupes of the promoter whose financial bubble bankrupts them.

Diseases are processes, hence there can be no sudden and absolute reversal of the processes by any means whatever
* * *

High Frequency and Alternating Current are synonymous terms, applied to rapidly oscillating current converted into heat by resistance overcome, and by molecular activity in living tissue. Local and general Diathermy are only manifestations, hence a definite quantity of heat may be developed

in a part such as the prostate. The heating is vascular, nutritional and relaxing.

The source is a standard transformer delivering high potential current * * *, the rheostat, the Multiple Spark Gap. * * * The electrodes are of the high vacuum glass type for the Oudin (mono-polar) current, in rectal or urethral prostatic work; or the insulated tip rectal electrode with the large metal pad on the tubes if Diathermy current be employed.

The current should produce only a mild warmth. The milliampere meter registers from 200 to 1000, within tolerance. Treatments persist from ten to twenty minutes on alternate days, and decongest the gland remarkably.

In modern urology Diathermy is used to increase healthful hyperemia and nutrition whenever any other modality might be used. It therefore augments the action of any other modality if used first. General Diathermy or Auto-condensation in prostatic lesions promotes absorption and elimination. * * *

Electrotherapy is by no means a cure-all in urology. Improved appliances, better diagnosis, finer selections of cases, lead to better recognition of its value. * * After about eight years of careful study I am of the opinion that Electrotherapy has a definite application in urology. * * * It possesses one unquestionable advantage, which is that it does not add to the destructive process of the disease unless inexcusable blunders are made.

Further, without doubt, it creates a healthy circulatory condition deep in the affected part, probably both through a local tissue and peripheral nervous influence. Unless the average local application it does not cause exfoliation of epithelium and thus add to a process already existing, as in gonococcal infection. In acute infections where the mucosa is so irritable that no instrument may be inserted only external forms as in X-ray, radiant light and Diathermy are possible.

* * * Where massage influence is called for, the positive pole of the static machine is in order, or the mild sinusoidal current combining faradism and galvanism. Where dilation is required, as in stenosis of the uterine os or in urethral stricture, the negative galvanic pole is very valuable. When stimulation and mild caustic action are sought for, then the galvanic pole is used cautiously.

For penetration of various medicaments—notably copper, zinc and iodine—ionization is the method. The copper and zinc must be attached to the positive pole and iodine to the negative pole. Too much caution can not be used with ionization until real skill is established.

Electrotherapy cannot be learned in a short time but it will reward all the time and energy employed both in learning and in applying it. With the caution and limitations indicated herein I recommend it highly.

□ □ □

“—and some of the so-called ‘little’ things are extremely far reaching in effect.”

Here is an excerpt from one of the Chicago papers of recent date:

Tick of Bishop's Watch Spoils Radio Lecture

A radio audience of 1,000,000 persons in Milwaukee, Minneapolis, Detroit, Cleveland, Indianapolis and other points in a radius of 500 miles of Chicago, which tuned in Sunday night to listen to a lecture by Bishop Fraser McDowell at Orchestra Hall, yesterday began deluging the Sunday Evening Club with complaints that it couldn't hear the lecture because of the ticking of his watch!

It developed that the Bishop had placed his watch too close to the transmitter while telling how small the world is!!

Treatment of Menorrhagia by Radium

B. Blacker (Lancet, March 3, 1923) says the results obtained by those who have employed radium in the treatment of uterine hemorrhage show that it is a valuable and efficient method in controlling excessive hemorrhage at the menopause, and that it can be employed safely for the same purpose in small uncomplicated fibroid tumors of the uterus, also in excessive menorrhagia in young women, which resist ordinary methods of treatment, can be brought under control.

Quartz Light Treatment of Leukoderma

Toomey has secured improvements in two cases of leukoderma by means of ultra-violet radiation. Complete pigmentation of some of the areas was obtained. More or less pigmentation was developed in all of the areas, the degree of pigmentation in some areas effecting a very acceptable cosmetic improvement. The Quartz light pigmentation of the achromic areas has persisted for more than six months with no apparent loss of the acquired pigment. The leukodermic areas that responded with complete or nearly complete pigmentation as a result of the use of the quartz light were the bones situated on the face. Achromic areas on covered surfaces of the body responded to the light with only a partial degree of pigmentation, the degree of pigmentation in an area being approximately in inverse ratio with the degree to which it had been habitually kept protected from the sun's rays.

When You Are Discouraged Read This

When a very young man, Abraham Lincoln ran for Legislator in Illinois. He was badly beaten.

Abe then turned his steps toward the business field. Failed. Spent about 17 years of his life paying up the debts of a no-good partner.

He fell in love with a very beautiful woman, became engaged and she died.

He entered politics again, ran for Congress and once more was swamped.

He then tried to get an appointment with the United States Land Office. Here again he fell down.

He became candidate for the United States Senate, and still another time he was beaten.

In 1856 he wanted to be Vice-President of the United States. Once more he succumbed to defeat.

Just one failure after another, bad failures, set-backs of the most trying kind. But in spite of all this, in spite of every beating he ever had, and all the little glooms that hovered over him, he eventually became the most beloved and greatest man this country ever knew and his name will go down through history—to time immemorial.

□ □ □

G O S H !

Where can a man buy a cap for his knee

Or a key for a lock of his hair?

Or can his eyes be an academy

Because there are pupils there?

In the crown of his head what gems are found?

Who travels the bridge of his nose?

Does the calf of his leg become hungry at times

And devour the corn on his toes?

Can the crook on his elbow be sent to jail?

Where's the shade from the palm of his hand?

How does he sharpen his shoulder blades?

—I'm hanged if I understand!

A PAGE OF FUN



Madge—So Charlie is teaching you how they play baseball?

Marjorie—Yes, and when I asked him what a squeeze play was I think he put one over on me.

□ □ □

A little girl, visiting for the first time in the country, watched the farmer's wife plucking a hen. After a careful scrutiny of the tedious process, asked the young visitor: "Do you have to undress it every night?"

□ □ □

"You look fed up, old man."

"Yes, I've had a tiring day. That little beast of an office-boy of mine came to me with the old gag about getting off for his grandmother's funeral, so just to teach him a lesson I said I would accompany him."

"Ah, not so bad; was it a good game?"

"No, it was his grandmother's funeral!"

□ □ □

"I'll be through in a minute," said the ice-cutter as he stepped onto the thin ice.

A lawyer earning about \$3,000 a year was insured for \$60,000. He was once reported dead, but it was a false alarm. He cabled to his partner: "I survived. Try and break it gently to my wife."

□ □ □

"No, I shall marry only a brave man," said the maiden firmly.

"But you must admit that it takes bravery for a poor mutt like me to propose to such a beautiful and talented girl," countered the suitor. So they lived happily, etc.

□ □ □

"When are you going to pay for that X-ray machine I sold you?"

Doctor Drill: "Pay for it? Why, you said that in a short time it would pay for itself!"

**SOME MEN ARE CONTENT
TO ENVY SUCCESS IN OTHERS;
OTHERS ACHIEVE IT FOR THEMSELVES.**