

Program for Our
**Monthly Physiotherapeutic
Meeting**

Monday, November 10th, 1924

L. C. SAMMONS, M. D., Shelbyville, Ind.

"Physiotherapy in General Practice" 10:00 to 11:00 A. M.

WM. E. HOWELL, M. D., Chicago, Ill.

"Ease and Effectiveness of
Electro-Coagulation Operations". 11:00 to 12:00 Noon

D. W. KOBAK, M. D., Chicago, Ill.

"Diathermy and Sinusoidal
as Complimentary Technic" 1:30 to 2:30 P. M.

ABRAHAM R. HOLLENDER, M. D., Chicago, Ill.

"The Influence of Medical
Diathermy on Tinnitus Aurium" 2:30 to 3.15 P. M.

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

"The Scope of Indirect Diathermy
in Certain Eye Conditions" 3:15 to 4:00 P. M.

How to Get Here:

DRIVING — Follow Washington Blvd. west to Oakley Blvd., north on Oakley to Wabansia Ave., and one block west, or

BY ELEVATED — Take the Humboldt Park "L" to Western Avenue Station, walk one block north to Wabansia Avenue and a short block east to Claremont; or

BY SURFACE CAR — Western Avenue to Wabansia Avenue, and one block east to Claremont.

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all of you. Remember the
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FISCHER'S MAGAZINE



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361

OCTOBER, 1924

THE SECRET OF SUCCESS
IS CONSTANCY OF PURPOSE.

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. II

OCTOBER, 1924

No. 11

Leaders are Learners

IT has been said, and no doubt widely believed by the laity, that no man gets a new idea after thirty—or thirty-five, or forty. The age varies, but the statement is just as gravely erroneous, it seems to us, though the limit be set at seventy—or ninety.

That there are people to whom new ideas come as unwelcome and disturbing visitors, there can be no doubt. You will find them of all ages and all professions. But you will never find a *leader* among them.

For leaders are learners, all their lives long. Out of their daily experiences, out of their contact with others, out of the books and magazines and treatises they read, successful men are constantly drawing a fund of new knowledge that can be applied in the conduct of their professions and their lives.

Have you ever noticed that one of the common characteristics of big men is their inquisitiveness? They always, one and all, are looking for the why and wherefore of things. Make a statement to one of them, and, often as not, he will question it; not because he doubts the truth of what you say, necessarily, but because he wants more details, a more complete and accurate picture of the facts. Yes, leaders are learners. But learners, too, of the essential things. All of us learn, from day to day, and from hour to hour. Our

minds entertain a constant procession of new thoughts. Whether those thoughts are of baseball, for example, of society, or of our professional work, is the important thing.

That is where the real leader has the advantage of the rest of humanity. Whether it is born in him or he has acquired it through hard experience and self direction, he possesses clear knowledge and clear vision in connection with the one big thing that to him is worth while.

And that thing is—leadership and success in his chosen profession.

Diathermy

FRANK B. GRANGER, M.D.

Boston, Mass.

Associate Editor of the *Physiotherapy News Bulletin*

Diathermy, or internal baking, has masqueraded under a number of synonyms such as thermo-penetration, thermofaradic (as its name indicates, a poor diathermy), endothermy, etc.

While it is a high frequency current, ordinarily of the D'Arsonval type with a fairly high voltage and milliamperage, yet in practice it varies widely, dependent upon the construction of the high frequency apparatus employed. It is evident that a machine wound to give a high milliamperage and a relatively low voltage will have less ability to overcome resistance and consequently less power of deep tissue penetration than one constructed to deliver a much higher voltage with a somewhat less milliamperage. It should have voltage enough, however, to insure its passage in parallel lines from one electrode to the other. In all other electrical currents, except perhaps the static, the electrical lines of force do not go in straight lines through the tissue from electrode to electrode, but are diffused in widely divergent ones, and are only concentrated at the points of contact of the electrodes.

Hence it necessarily follows that the deeper structures are much less under the influence of the electrical current. Diathermy, on the contrary, provided as stated above the voltage is sufficient, flows in a straight line from electrode to electrode and the intervening tissues are generally well heated with of course a greater intensity of heat nearer the smaller electrode. It is this process of generating heat within the tissues that makes diathermy so valuable. All other forms of heat are to a great degree blocked in their penetration by the skin, whether they are conductive heat such as the hot water bottle or electric heating pad, or convective heat such as incandescent light applicators or the arc light. Diathermy, however, is true converse heat, that is heat generated in the tissues; hence it penetrates deeply and to a great degree uniformly.

The penetration and clinical results of the infra-red rays, despite generous advertising is still a mooted question.

Diathermy then is a high frequency current ordinarily of the D'Arsonval type with sufficient voltage to overcome tissue resistance, and with sufficient amperage or quantity to heat, because of internal tissue resistance, the structures through which it passes, as it flows in straight lines from one electrode to the other.

Diathermy may be divided into medical and surgical diathermy. Surgical diathermy, which includes electrocoagulation and dessication, will not be considered in this paper.

Medical diathermy may be divided into direct and indirect diathermy. Auto-condensation is the most important example of the indirect type.

The methods of application of direct diathermy are the lateral method, the double cuff method, and the cuff and water method.

Of these the first, the lateral method, insures the greatest concentration of heat to a given local area in the shortest time. The cuff method is also efficient but requires a much

longer time of application. The cuff and water method is the least efficient. It is ordinarily used where the toes or fingers are to be diathermatized.

Materials

Only a metal contact should be employed such as block tin, preferably 22 gauge Crooke's metal, organ pipe metal, limpit metal, or metal mesh. The interposition of moist cotton, felt, or asbestos increases greatly the chances of a burn. Either one of two things may happen. The pads may become dry, more resistance ensues, carbonization takes place, and the tissue is showered with fulgeration sparks; or as has happened with the asbestos type the metal back may become disintegrated and the area of contact be thus greatly reduced in size with consequent concentration of current strength, and an electro-coagulation of the part under treatment. Great care should be taken in preparing metal electrodes. They should not have any sharp edges. They should be perfectly smooth so that no undue pressure might be exerted. If they have been used before, good contacts should be ensured by smoothing them with a squeegee, or even a large static spark ball. In hospital practice the skin is well lathered before the electrodes are applied. In the office, where there is presumably less rush and aides with wider experience, the electrodes are dropped into basins of hot water in order that the metal may feel warm, and are placed in position with only the small amount of moisture present which may cling to them. If the current is gradually turned on, the resistance of the skin should be overcome without any discomfort to the patient. If the part is hairy it should be well lathered or shaved. The electrodes should then be bound on with an elastic bandage such as the Ace. A paper or cotton bandage may also be employed. I ordinarily use a cotton bandage or a rubber strap (old inner tubes are handy for that purpose). The contacts should be exact, and if the patient complains of burning or prickling the metal should be firmly pressed against the skin over the area in question.

If this does not give relief, the metal should be reapplied. This is important, for if the metal is not in close contact with the skin, the passage of minute sparks will in time either fulgerate or coagulate, and a high frequency burn will ensue. These burns are not ordinarily harmful, unless they are deep enough to cause a scar, but they are bad technic. If by any chance the skin is anesthetic, the greatest care should be employed. Much has been written concerning the swelling of the tissues under the diathermic electrodes. I think that this has been overstated, and it is much better to bind on snugly enough to secure good contact, thus avoiding a burn. As stated above it is better to use a bandage which is somewhat elastic. A gauze bandage may exert undue pressure on some part, and from this excessive pressure and the resultant ischemia, a burn may result. For this reason also it is well to avoid bony prominences.

Dosage

From 50 to 100 milliamperes per square inch of contact is ordinarily sufficient. If the arteries are sclerotic 50 milliamperes is better than 100.

Spark Gap

The spark gap should be in good working order, special attention being paid to its cleanliness. It is better to have the spark gaps fairly close and to increase the amount of current by allowing more to come in from the alternating current mains rather than to use a wide open, spluttering spark gap as thereby a faradic character may be imparted to the diathermy which would not only be more disagreeable to the patient, and less current could be used, but it would also act as a stimulating diathermy rather than as a sedative one.

Time of Treatment

This cannot be exactly interpreted in minutes as the result and the reaction are the main factors. In general it takes at

least 20 minutes to heat thoroughly a part. With the double cuff method the treatment should be continued until the skin between the inner edges of the electrodes becomes hot. This may take from 20 to 60 minutes.

Frequency of Treatment

This depends on the underlying pathology. For the relief of pain, or in a pneumonia, one or two treatments a day may be necessary. In non-union or delayed union of bone, two or three times a week will suffice.

Some Special Indications for Diathermy

1. Non union or delayed union of bone. Here diathermy, where a fair degree of fixation of bone can be secured, is of value. Wherever possible the lateral method is used. If apparatus can not be removed, the cuff method is best.

2. Bursitis, especially subdeltoid with calcification. Under diathermy and chlorine ionization through the shoulder followed by massage and gentle manipulation the calcified bursae disappear.

3. Hypertrophic arthritis. Here, provided overgrowth of bone is not a mechanical obstruction, and even though the X-ray picture remains unchanged, prompt symptomatic relief is usually obtained by diathermy and ionization. Numerous cases physically incapacitated are returned to gainful occupation for periods of many months.

4. Pneumonia. An internal poultice such as is afforded by diathermy, the increased local temperature (nature's method), the increased hyperemia and drainage, and the augmented phagocytosis all seem to mark the use of diathermy as a rational procedure. Often the improvement in the pulse, disappearance of cyanosis, and the decrease of pain, is coincident with the treatment. Treatments may be given twice daily.

5. Neuritis. Frequently a very acute neuritis will be more quickly relieved as regards pain by diathermy than by any other method. The double cuff technic is usually employed. In brachial neuritis, not infrequently the cervical and upper thoracic spine is affected, hence in such cases I employ the following technic: Suppose it is the right arm—place a semicircular strip of metal over the left side of the spine, and a cuff over the upper arm. Diathermatize until the shoulder is hot, 600 to 900 milliamperes. Remove the cuff from the upper arm and place it around the wrist continuing until the whole arm is hot. The first treatment will often cause increased pain, but this apparently is not a bad sign.

6. Spasticity. This is best treated by diathermitizing the appropriate centers in the spine, and then by the double cuff method, heating the spastic muscles.

7. The contra-indications to diathermy are two:

1. Pus without drainage.
2. Lesions where there is likelihood of hemorrhage.

Diathermy: A Specific for Gonorrheal Epididymitis

BUDD C. CORBUS and VINCENT J. O'CONOR
Chicago, Illinois

Gonorrheal epididymitis occurs in from 20 to 30 per cent of all cases of gonorrhea. It is more prevalent in dispensary than in private practice. This painful and destructive complication, in an economic way alone, represents the sum total of time lost in 90 per cent of the cases of specific urethritis.

During the past seventeen years the management of this condition has received serious and more detailed consideration from urologists in general but particularly from American urologists. This was largely stimulated by the work of Hagner, Bazet and Belfield.

The time honored method of treating this class of cases by elevation or strapping of the testicles, rest in bed, and the external application of heat or cold, incapacitates the patient for from five to fourteen days and may later necessitate operation to drain the infected epididymis.

The interest in this troublesome situation, from a surgical point of view, has become so keen that few patients escape the procedure of epididymotomy. This is not only true of patients in private practice but in most dispensaries as well. The results of this operation, in a large proportion of cases, have been excellent but the patient must be laid up at least three to ten days.

While the outcome of an individual case of gonorrheal epididymitis is rarely in doubt, the disability which accompanies the usual methods of treatment is annoying and embarrassing both physically and financially.

It is apparent that any method which can abort the attack, or stop the pain and absolutely eliminate the usual incapacity, would be a decided step forward in this type of therapy.

Knowing that the gonococcus is instantly destroyed at a temperature of 108° F., it occurred to us that if a suitable instrument could be devised we could induce sufficient heat within the body of the epididymis to destroy the gonococcus in its local invasion, stop the pain and abort the attack. This knowledge was gained by an experience of several years in the application of diathermy in the treatment of cancer and in gonorrheal endocervicitis. The results of these studies are published elsewhere.

We have been so successful with this procedure that we believe we are justified in calling this method a specific for gonorrheal epididymitis.

Description of Instrument

The instrument as devised by one of us (B. C. C.) consists of a fiber clamp with curved arms, one of which is movable.

This movable arm may be fastened at any desired point by means of a lock-nut. Two concave discs are attached to the distal ends of the arms. These discs measure 4 cm. in width and 5 cm. in length, and are swiveled that they may be easily adjusted. Each disc connected to a binding post so bi-polar current may be applied. The electrode is rigidly constructed and, due to the self adjusting discs, is applicable to any size scrotal content.

Method of Application

The patient is placed in the recumbent position and the scrotal and suprapubic region exposed. Shaving soap lather is placed between the skin and the contact point of the electrodes. The entire body of the testis and epididymis is encased between the apposed electrode surfaces and heated uniformly by the d'Arsonval current. In order to effect the greatest degree of heat induction possible in the individual, the current is increased to the extent of cutaneous discomfort. When this point is reached the current is then reduced slightly so that no unpleasant sensation accompanies the treatment. Our routine has been to apply the heat for at least forty minutes, since even at 104° to 106° F. the gonococcus is killed during this time. In those cases seen during the first twelve to twenty-four hours of epididymal involvement by the gonococcus one such treatment has usually sufficed to check the attack and start the process of resolution. In those instances where the inflammatory reaction has been present for a number of days, three or four treatments on successive days have been sufficient to eliminate all untoward effects.

A very distressing funiculitis often accompanies the epididymal involvement and may persist after the symptoms of the latter have completely subsided. This is as quickly relieved by placing the instrument in a vertical position with one electrode over the globus minor and the other over the

region of the internal abdominal ring. This permits an induction of heat throughout the accessible portion of the vas deferens; this should be continued for forty minutes.

So mild is the attending inflammatory reaction following a heat treatment for gonorrheal epididymitis, that there is absolutely no hydrocele present. Both poles of the epididymis are distinctly palpable as hard painless nodules, this is rendered more distinct on account of the absence of any orchitis.

A Few Typical Case Reports (Quoted)

Case 1. R., aged thirty-five years, during the course of an acute urethritis motored several hundred miles in one day. That night his right epididymis became very tender and gradually enlarged. The next morning, August 2, 1923, when he presented himself the entire epididymis was swollen to five times normal size. There was slight accumulation of hydrocele fluid, temperature 101°, pulse, 110, leucocyte count 13,500. The patient was very weak and could hardly walk so great was the pain in the right testis and groin. It was imperative to his business interests not to be laid up that week because of a local convention. Diathermy for forty-five minutes was followed by complete relief from local pain. The following day the patient felt perfectly well. There was no local pain or tenderness although the lower pole of the epididymis was three times the normal diameter and very hard. The patient had no further discomfort and five days later his scrotal content seemed normal.

Case 2. H., aged twenty-three years, professional dancer developed a left gonorrheal epididymitis in the fifth week of an acute urethral infection. He presented himself, October 10, 1923. Left scrotum red and swollen to twice the normal size. Lower pole of the left epididymis was markedly swollen and so tender that palpation caused severe prostration. There was very slight hydrocele present. Temperature 100°, pulse rapid. Diathermy for one hour gave marked relief. The patient was very anxious to avoid prolonged absence

from the stage but was advised to remain in bed for the following twenty-four hours. A similar diathermy treatment was given the following day and complete subsidence of all pain, swelling and tenderness was noted on the second day. In spite of repeated warnings the patient persisted in doing his acrobatic dancing stunts for an aggregate of thirty minutes each day. The scrotal content was kept elevated by an elastic supporter. No recurrence took place and five days later both testis and epididymis were normal. The patient lost only one day of work.

Case 3. P., aged twenty-two years, presented himself October 1, 1923, with a left gonorrheal epididymitis of three weeks duration. Rest in bed, hot applications or tight suspensories had failed to do more than temporarily relieve the pain and swelling. The epididymis was twice normal size hard and painful on palpation. The vas deferens was half again as large as normal and was tender as far up as the external inguinal ring. Walking even with a well-fitting suspensory, was attended with a sickening pain in the left testis and groin. Diathermy for one hour gave no apparent immediate relief. Twenty-four hours later the pain left the epididymis completely and the patient declared on the third day that there was absolutely no discomfort. The acute swelling had entirely subsided four days later and there has been no recurrence.

These 3 cases are typical of the results obtained in a series large enough to justify our enthusiasm as to the specificity of diathermy for gonorrheal epididymitis.

Summary

Diathermy provides us with a method of inducing heat within the body of the epididymis, testis and spermatic cord. By using the electrode described above the gonococcus can be rapidly destroyed in its local invasion obviating prolonged inactivity or operative interference. Our results with this

(Cont'd. on page 14)

THIRD ANNUAL PHYSIOTHERAPEUTIC CONVENTION

CHICAGO, ILLINOIS—OCTOBER 20 to 24, 1924
at the LOGAN SQUARE MASONIC TEMPLE

H. G. Fischer & Company join with the following physicians in cordially inviting you to attend what we are confident will prove to be "the greatest meeting of Physiotheraputists of all time".

The following physicians of note will participate:

E. C. HENRY, M.D. Omaha, Nebr.
Chief of Staff, the Lord Lister Hospital—*Chairman*.

MILES J. BREUER, M.D. Lincoln, Nebr.

W. B. CHAPMAN, M.D. Carthage, Mo.

MAURICE H. COTTLE, M.D. Chicago, Ill.
Eye, Ear, Nose and Throat Surgeon at the American Hos-
pital.

LEO C. DONNELLY, M.D. Detroit, Mich.

EMILE C. DU VAL, M.D. Chicago, Ill.

R. F. ELMER, M.D. Chicago, Ill.
Attending Surgeon, Chicago General Hospital.

CHAS. H. FREDRICKSON, M.D. Chicago, Ill.
Attending Physiotherapist, the U. S. Veterans' Bureau.

DEAN W. HARMAN, M.D. Ames, Iowa

ABRAHAM R. HOLLENDER, M.D. Chicago, Ill.
Attending Eye, Ear, Nose and Throat Surgeon, the American
Hospital.

WM. E. HOWELL, M.D. Chicago, Ill.
Attending Physiotherapist at the American Hospital.

D. FRANK KNOTTS, M.D. Chicago, Ill.

DISRAELI W. KOBAK, M.D. Chicago, Ill.
Attending Physiotherapist, the Cook County Hospital.

GUSTAV KOLISCHER, M.D. Chicago, Ill.
G. U. Surgeon at the Michael Reese and Mount Sinai Hos-
pitals.

ARTHUR LA ROE, M.D. Newark, N. J.
Formerly of the U. S. Public Health Service and U. S. Vet-
erans' Bureau at Newark, Staten Island and New York.

ELLIS G. LINN, M.D. Des Moines, Iowa

FREDERICK H. MORSE, M.D. Boston, Mass.
Ex-president the American Electrotherapeutic Association.

ROSWELL T. PETTIT, M.D. Ottawa, Ill.
Physician-in-charge at the Illinois Valley Hospital.

CURRAN POPE, M.D. Louisville, Ky.
Medical Director the Pope Sanatorium, and Consulting
Neurologist and Physiotherapist to Saint Anthony's
Hospital.

A. L. SMITH, M.D. Corry, Pa.

HARRY EATON STEWART, M.D. New Haven, Conn.
Director New Haven School of Physiotherapy, formerly
supervisor Physiotherapy Bureau U. S. Public Health Serv-
ice, Washington, D. C.

HARRY M. THOMETZ, M.D. Chicago, Ill.
Assistant Surgeon the Illinois Eye and Ear Infirmary, and
late of the U. S. Government Service.

NORMAN E. TITUS, M.D. New York, N. Y.
Vice President American Electrotherapeutic Association and
New York Electrotherapeutic Society. Director of American
Academy of Physiotherapy. Director of Physiotherapy,
Beekman Street Hospital.

ALBERT F. TYLER, M.D. Omaha, Nebr.
Professor Roentgenology Creighton Medical College, Roent-
genologist St. Joseph's Immanuel, Paxton and Douglas
County Hospitals.

MEL R. WAGGONER, M.D. Cedar Rapids, Iowa

Several other physicians skilled in Physiotherapy
have promised to be present and to lend their assist-
ance. These meetings will be open only to licensed
physicians of good standing. There will be no charg-
es, and no obligation imposed by attending.

This is the one meeting of the year that you cannot afford to miss!

original method have been so uniformly satisfactory that we feel free to describe it as one which is specific for gonorrheal epididymitis.

Jour. Urology.

Physiotherapy in Government Hospitals

The following extracts from General Order Number 68D, U. S. Veterans' Bureau, issued by Director Frank P. Hines, and bearing date of June 4, 1924, shows that physiotherapy and occupation therapy are now a constituent part of the medical care and treatment in U. S. Veterans' Hospitals and in Government Hospitals operated by The War, Navy and Interior Department, and even in the National Homes for Disabled Volunteer Soldiers.

"1. Physiotherapy and occupational therapy in U. S. Veterans' Hospitals are a constituent part of medical care and treatment and, like other clinical measures, shall be carried out under the supervision and control of the Medical Officer in Charge of the hospital, acting under the general direction of Central Office, which will control the appointments of personnel and the furnishing of supplies and equipment. In the case of contract hospitals such occupational therapy and physiotherapy personnel and equipment as are to be furnished by the Bureau shall be provided through the District Manager concerned, and shall be under his supervision, except as hereinafter specified. In the case of Government hospitals operated by the War, Navy, or Interior Departments, or by the Board of Managers of the National Homes for Disabled Volunteer Soldiers, these measures are carried on under the direction of such authorities, and by means of personnel, supplies, and equipment which they provide.

"2. Physiotherapy is the use of physical measures for therapeutic purposes, and includes massage, hydrotherapy, thermotherapy, electrotherapy, actinotherapy, therapeutic exercise, and remedial gymnastics.

"3. Occupational therapy shall include any occupation, mental or physical, definitely prescribed and guided for the distinct purpose of contributing to and hastening recovery from disease or injury, and shall include activities formerly carried on under the designation of pre-vocational training. Neither physiotherapy nor occupational therapy shall be applied except as prescribed by medical authorities. The term "Reconstruction Center" and the title "Educational Director" shall be discontinued, and the head of the Occupational Therapy Service shall be designated as the Occupational Director.

"4. In U. S. Veterans' Hospitals the Medical Officer in Charge, unless he performs such duties himself, shall designate some medical officer especially qualified in physiotherapy to have supervision of that activity whenever such officer is available. The ranking physiotherapy aide shall have charge of the administration of physiotherapy under the direction of that officer. The same officer, or some other especially qualified in occupational therapy, shall when available, be designated by the Medical Officer in Charge to supervise that activity, unless the Medical Officer in Charge performs such duties himself. The Occupational Director shall have charge of the administration of occupational therapy under the direction of that officer. When no officer is especially assigned to have charge of these activities, the ranking physiotherapy aide and the Occupational Director shall be responsible to the Medical Officer in Charge for the proper conduct of their respective departments. * * *

□ □ □

Until we acquire a more definite knowledge of the causes of hyperpiesis, its treatment must be more or less empirical. However, during the first stage auto-condensation has proven satisfactory.

Prostatitis

Question received:

"Gentlemen:—

In some treatments of Prostatitis both acute and chronic, with diathermia, we have failed to get results. Can you give us any points as to why? Is it the machine or the operator, or both? Have tried every technic described and with no results. This same thing has occurred in some cases of acute arthritis in the knee. In the ankle and wrist we have secured wonderful results. In epididymitis, our paper speaks for that. As you will recall, we are using your Portable at both hospitals. Any suggestions will be more than appreciated."

Answered by W. B. Chapman, M. D. of Carthage, Mo., as follows:

"Dear Dr. Peacock:—

Your inquiry to H. G. Fischer & Company of Chicago has been referred to me. I presume that they have already supplied you with my little pamphlet entitled 'Electrotherapy in Prostatitis,' and I hope that you will read it carefully. In case you have tried this technic without results, I would examine the patient carefully for other complicating diseases, especially tuberculosis and syphilis. I have recently treated a patient from down in your country who was so run-down and anemic that he did not respond to any form of treatment for weeks, but finally began to improve after persistent administration of iron and arsenic both by mouth and intravenously.

Where the patient does not respond satisfactorily, especially in chronic prostatitis, I would give some foreign protein subcutaneously to stir up his resistance. For this reaction I use typhoid vaccine, diphtheria antitoxin or some of the mixed sera or vaccines. It makes very little difference which you use as it is the foreign protein reaction that you desire. These injections repeated on alternate days will often stir up a healthy reaction with fever and an increased leucocytosis and the local condition will begin to improve immediately.

In arthritis of the knee an X-ray will probably show what the trouble is. The knee-joint is weight bearing, and the infection often erodes the cartilage and forms exostoses or roughened areas of bone in the joint. When the patient rests the joint, these areas stick together with excruciating pain to the patient when he attempts to move again. Neither medicine nor diathermy will help this condition as it is strictly operative."

The Treatment of Tumors of the Bladder

By HOWARD A. KELLY, M.D., F.A.C.S. and
WILLIAM NEILL, Jr., M.D., F.A.C.S.

From the Howard A. Kelly Hospital, Baltimore, Md.

The problem of tumors of the bladder, so long treated as the stepchild of urology, has in recent years taken on a new interest owing to the advent of several new factors. First of all, there is the more ready recourse to surgery of the viscus, exposing the tumor and attacking it effective in loco; then, there is the use of radium which has been found curative in an astonishing percentage of cases; and, finally, a new agent has come to claim a position in recent years, by which a current of electricity directed to a spot acts as a desiccating agent (endothermy) capable of penetrating the depths of the tumor and destroying it rapidly and without hemorrhage.

Surgery. Surgery is the most aggressive procedure and the only one associated with a serious risk. The limitations of surgery are at present, as in the past, due to the fact that with rare exceptions it is only applicable to isolated pedunculate growths, the simplest group under discussion, while it is worse than useless in any carcinoma invading the bladder wall. With the new agents now at our disposal, it is difficult to see just what field will remain for the pure surgeon except to employ his art as an adjuvant to the use of radium or endothermy,—that is to say, in exposing the field through a suprapubic opening in the bladder for the treatment. We, ourselves, have felt a serious temptation to spend considerable time in developing another form of surgery, however, that is to say, to labor to acquire skill in operating through the open cystoscopic, 14 cm. long and 10 mm. in diameter; especially in the female bladder does this method afford access to all parts, opening up a way for working with delicate instruments. In the male the instrument must be longer. It is quite certain, however, that any

attempt to remove a tumor by means of forceps, knife, or scissors is necessarily exposed to a risk of serious hemorrhage and should, therefore, be eliminated.

Electric Coagulation or Endothermy. We have for years used fulguration in attacking papillomata through our open air cystoscope with the patient in the knee-chest posture, but have always found that the chief difficulty was that we were able to make so little impression on a massive tumor at one sitting, even though we attacked the pedicle. Fulguration seems to yield its best results in sparking out superficial flat areas of disease where the papillary tumor is disseminated. In papillary carcinomata with infiltration, it is of course worse than useless. It is not our desire, however, to deprecate an agent which in a limited field has proven such an advance over previous ineffective methods.

More recently, an effective apparatus has been devised by Edward V. Clark of Philadelphia and extensively utilized by his former co-adjutor, Dr. George A. Wyeth of New York, who has brought this machine to a remarkable perfection. Wyeth, who is also a first class surgeon, as well as urologist, has made use of the desiccation and endothermic method to destroy tumors in the bladder by making a suprapubic opening and then penetrating and desiccating the disease in an area all around the base of the tumor which is then undermined, desiccated, and removed. The method is not applicable where there is basal infiltration but only to the papillary carcinomata not yet become invasive and to simple papillomata.

The writers believe that this method affords an extraordinary facility for dealing with these tumors without an incision, through the open cystoscope, in the male as well as in the female, and that in this way it will be possible to desiccate the bases of all pedunculate tumors and destroy them as a rule at a single sitting. Such a procedure simply calls for dexterity in the use of a cystoscope and in introducing a long well insulated needle to be brought into contact

with the base of the tumor or to be plunged into it. This will cut out the use of radium in all but the infiltrating, metastatic, or superficially widespread types, a welcome retrenchment in the radium field.

In recapitulation, the method which has the widest field of utility is the use of radium, and we have here an agent whose value is not yet fully appreciated in dealing with those otherwise hopeless cases. The endothermic method, however, greatly simplifies and extends and helps the radium application in removing masses of disease and curing the patient quickly in the simpler cases, and in limiting the field for radium to those in which the bladder wall is invaded.

Abs. from *Ur. and Cut. Review*.

Electro-Coagulation Essentials

By T. HOWARD PLANK, M.D.

Chicago

The first essential for good results from electro-coagulation is a good working knowledge of anatomy; the second and equal essential is a good grounding in pathology, for one must know how far he can go with the destruction, and electro-coagulation in destruction, and equally one must know how far it is necessary to go to obtain good results, and this can only be accomplished by having the necessary information at one's finger tips.

The limits of the pathology in the case at hand are the boundary lines that he must reach to obtain success. If the anatomy of the parts will not permit of this amount of destruction then the case is not one for electro-coagulation and some other method of treatment is to be followed.

The third essential is as perfect a knowledge of the destructive agent used as it is possible to obtain. In this instance it is the high frequency currents, either Oudin or D'Arsonval, either unipolar or bipolar, depending entirely upon what one wishes to accomplish.

The Waggoner Physiotherapeutic Lecture Courses

By Mel R. Waggoner, Cedar Rapids, Iowa

Classes for the Coming Season Follow:

Chicago, Illinois	- - - - -	October 27th to November 1st
	(The Auditorium Hotel)	
Charlotte, North Carolina	- - - - -	November 10th to 15th
	(Charlotte Hotel)	
New York, New York	- - - - -	November 17th to 22nd
	(Hotel Pennsylvania)	
Philadelphia, Pennsylvania	- - - - -	November 24th to 29th
Cleveland, Ohio	- - - - -	December 8th to 13th
	(Hotel Winton)	
Detroit, Michigan	- - - - -	December 15th to 20th
	(Wolverine Hotel)	
Chicago, Illinois	- - - - -	January 5th to 10th
	(Auditorium Hotel)	
Los Angeles, California	- - - - -	January 26th to 31st
	(Lecture Hall, Professional Bldg.)	
San Diego, California	- - - - -	February 2nd to 4th
	(Grant Hotel)	
San Francisco, California	- - - - -	February 9th to 14th
	(St. Francis Hotel)	
Seattle, Washington	- - - - -	February 16th to 21st
	(Olympic Hotel)	

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For Details, Fee, Etc., Etc., write the
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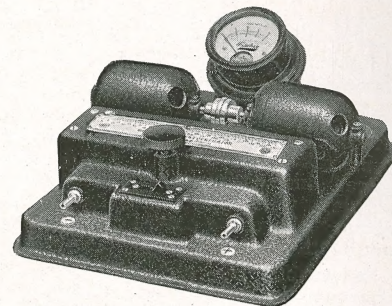
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A PAGE OF FUN



R.H.L.: I have asked every one I know what could possibly make a man write a poem like "The Deserted Village," and today a book agent enlightened me by saying, "Oliver Goldsmith was inspired to write The Deserted Village, while in Glasgow, Scotland, on a Tag Day."

One Sunday two lovers went to church. When the collection was being taken up the young man explored his pockets and finding nothing, whispered to his sweetheart: "I haven't a cent; I changed my pants."

Meanwhile the girl had been searching in her bag and finding nothing, she blushed a rosy red and said: "I am in the same predicament."

□ □ □

Tom: "Harry ate something that poisoned him."

Dick: "Croquette?"

Tom: "Not yet; but he's very ill."

□ □ □

"No," she said, "everything's over between us. We're through. Shall I return your letters?"

"Yes, please," replied the rejected one. "There's a lot of good stuff in them I can use again."

Strolling along the quays of New York Harbor an Irishman came across the wooden barricade placed around the enclosure where emigrants suspected of suffering from contagious diseases are isolated.

"Phwat's this boarding for?" he inquired of a bystander.

"Oh," was the reply, "that's to keep out fever and things like that, you know."

"Indade!" said Pat. "Oi've often heard of the Board of Health, but bejabbers, it's the first time Oi've seen it!"

□ □ □

What a wonderful bird the frog are,

When he stand, he sit,

When he hop he fly,

ALMOST.

He ain't got no sense,

HARDLY.

He ain't got no tail

Either.

When he sit down he sit on

What he ain't got

ALMOST.

**THERE ARE BOATS THAT MIND THE HELM
AND BOATS THAT DON'T.
THOSE THAT DON'T, GET HOLES KNOCKED
IN THEM SOONER OR LATER.**

—Elbert Hubbard.