

GAINS 8 POUNDS IN TWO WEEKS' TIME

Dyspepsia Entirely Overcome and She Eats, Sleeps and Feels Better Than in Years, Says Boston Resident.

"I have actually gained eight pounds in two weeks' time and am now eating better, sleeping better and feeling better than I have in three or four years," said Mrs. Celestia Felt, 32 Prince street, Boston, Mass., recently, in telling of the great benefits she has derived from the use of Tanlac.

"My stomach was in such a bad fix before I took Tanlac that I did not dare eat much of anything, for it did I would have so much pain and distress from indigestion that I felt like I was going to die. I was so run down and weak from lack of sleep and food that I could not do my housework."

"I was so nervous I couldn't keep still during the day nor sleep at night. I can now sleep at night and feel as if I would have had to give up entirely. I am now feeling strong and healthy and all the credit belongs to Tanlac."

Tanlac is sold by all good druggists.

A Lot of Practice. His sweetheart clung to him. "Oh, I'm so glad you're back from New York!" she said. "And now, I mean, did you remember all the beautiful things you said to me when I was among the fascinating New York girls?" "Remember them?" said he. "Why I kept on repeating them, dearest."

FROM GIRLHOOD TO WOMANHOOD

Woman Relied Upon Lydia E. Pinkham's Vegetable Compound

Emporia, Kansas. "I began using Lydia E. Pinkham's medicine years ago when I was a girl. For several years I had severe pains at menstrual periods, making me very weak and interfering with my regular duties. I tried several remedies without obtaining relief. I was induced to try Lydia E. Pinkham's Vegetable Compound by friends and it restored me to normal health. I often have occasion and do recommend your Vegetable Compound to my friends who have troubles similar to my own. You may see these facts as a testimonial."

Eva Aldrich, 218 Union St., Emporia, Kansas. There are many women who first used your Vegetable Compound during their girlhood days. They found it a valuable help during trying periods. In later years they use it whenever they feel those annoying symptoms which women often have.

Lydia E. Pinkham's Vegetable Compound is a woman's medicine. It is prepared carefully from the best quality of medicinal plants, whose properties are especially adapted to correct the troubles women have.

MAN'S BEST AGE

A man is as old as his organs; he can be as vigorous and healthy at 70 as at 35 if he aids his organs in performing their functions. Keep your vital organs healthy with

GOLD MEDAL HAARLEM OIL CAPSULES

The world's standard remedy for kidney, liver, bladder and uric acid troubles. It cures 1000s of nervous disorders, stimulates vital organs. All druggists, three sizes. Look for the name Gold Medal on every box and accept no imitation.

PARKER'S HAIR BALMSAM

Restores Color and Brings to Gray and Faded Hair. Cleanses and Refreshes. Makes Hair Grow Thick and Healthy. Sold Everywhere.

HINDER CORNS

Remove Corns, Calluses, etc., from all parts, restore comfort to the feet. Makes walking a delight. Sold Everywhere.

Help Wanted

WANTED: Male help over 18 for automobile machine shop and assembly work. Experience not necessary. Ideal living conditions in best resort town on Lake Michigan. Apply or write Employment Department, Continental Motors Corp., Muskegon, Mich.

ALLEN'S FOOT-EASE FOR THE FEET

Sprinkle one or two Allen's Foot-Ease powders in the Foot Bath and soak and rub the feet. It takes the sting out of corns and restores the feet to normal. Then, for lasting comfort, shake Allen's Foot-Ease into your shoes. It takes the friction from the shoe, rests the feet and makes walking a delight. Always use it for dancing parties and to break in new shoes. Over One Million Free Hundred Thousand pounds of Powder for the Feet were used by our Army and Navy during the war. In a Pinch, Use ALLEN'S FOOT-EASE

RADIO

THIRD ELEMENT IN THE VACUUM TUBE

Grid Added to Fleming Valve by Dr. Lee DeForest Was a Big Improvement.

Any device which will pass electricity in one direction and will wholly or partially obstruct the flow in the opposite direction is termed a rectifier, because when connected in the path of an alternating current it will suppress one-half of each cycle and therefore the current will be traversed by pulsating direct current. A rectifier also is said to possess unidirectional conductivity, meaning, of course, that it will conduct electricity in one direction only.

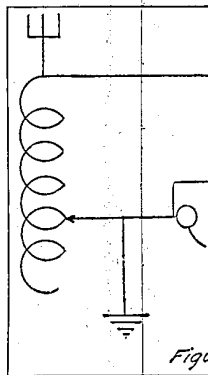


Figure VI

rection only. Its ability to rectify currents of extremely high frequency demonstrates its application in radio.

Due to its ability to rectify high frequency alternating currents the three-element (filament and plate) vacuum tube can be used in a radio receiver as a detector.

Fig. VI is a simple radio receiving circuit employing this type of two-element vacuum tube in place of a crystal detector. Dr. J. A. Fleming of London, England, was the first to use a two-element tube of the type just described as a medium of rectifying high frequency radio currents. Fleming called his product a valve because it would let current flow in one direction but not in the other direction. The Fleming valve was a forerunner of the vacuum tube of today.

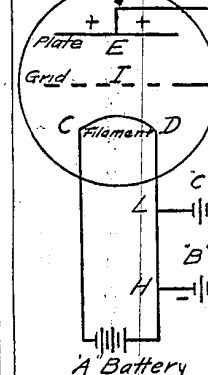


Figure VII

vacuum tube of today marked a very important step in the progress of the radio art. The Fleming valve, however, in its original form was not much better than other forms of rectifiers then in use, owing to the greater ruggedness and ease of manipulation of the latter, did not come into general use as a detector.

Dr. Lee DeForest, an American, greatly improved the Fleming valve by adding a third electrode called the grid, which served the function of a control element and thus made it possible to utilize the feeble incoming signal currents to control more powerful local currents. The three-electrode vacuum tube of DeForest is the tube used so extensively today.

The third element which is called a grid and from which the three-electrode vacuum tube derives its name was placed by DeForest between the filament and the plate in the path of the electrons. The grid is a perforated plate or mesh of fine wire through the openings of which the electrons must pass in their journey from the filament to the plate.

Fig. VII is a diagrammatic sketch of the circuits of a three-electrode vacuum tube and is identical to the same as the sketch in Fig. III for a two-element vacuum tube with the ad-

dition of the grid circuit I-J-K-L. The battery in the grid circuit is called the "G" battery. As a start let us suppose that "G" battery voltage is zero. The operation of the three-electrode tube would then be exactly like that of a two-electrode tube. Just as though there were no grid. Like a two-electrode tube when the filament C-D is brought to incandescence by the "A" battery a steady stream of electrons will be given off, which will be drawn over to the plate E. Plate E is maintained at a positive potential with respect to the filament by the "B" battery. Now if the grid is made positive with respect to the filament, it is possible to accelerate the flow of the electron stream from the filament to the plate; if the grid is made negative with respect to the filament, the flow of the electron stream from the filament to the plate will be retarded. Or in other words, by making the grid positive or negative with respect to the filament, it is possible to increase or counteract the space charge. The third electrode or grid thus offers a means of controlling the current in the

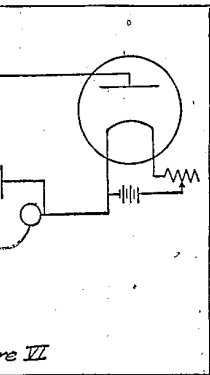


Figure VIII

plate current without changing the plate potential or the filament temperature.

The characteristic curve of a three-electrode vacuum tube is shown in Fig. VIII. This diagram shows the relation of grid potential to plate current, assuming that the filament temperature and plate voltage remain constant.

It can be seen from the curve that by applying a negative potential of value E to the grid, the plate current can be reduced to zero. The negative charge on the grid will have the effect of a negative potential E with respect to the filament, making negative charge so strong around the filament that the electrons cannot leave it. On the other hand, if a positive potential of value F is applied

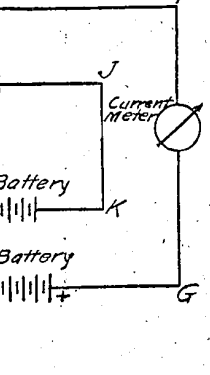


Figure IX

to the grid with respect to the filament, the maximum or saturation current will flow in the plate circuit. Applying a greater positive potential than F to the grid will not cause an increase in the plate current.

Kalamazoo — A though a man's money may be devalued in his wife's game, it still belongs to him, according to a decision of Circuit Judge Weimer. The court returned to Charles Norrie the \$5,455 which had been deposited in a Kalamazoo bank in his wife's name. Half of the money was willed by the wife, who died recently, to her relative.

Kalamazoo — Bertha Nash, an 18-year-old telephone operator, was recommended to jail for awaiting trial after she pleaded not guilty to a charge of killing her father at the home of her father near this city four weeks ago. The girl was arraigned following the verdict of the coroner's jury which charged that the infant died from exposure and wounds in the neck caused by a sharp instrument.

Owosso — Legal action was started in the United States district court, at New York, by James Oliver Carmichael, of Owosso, against the Associated Distributors Incorporated, 224 via Carver Place, Detroit, Michigan. Charles C. Hart and associated First National Bank of New York, Pittsburgh and Washington, for alleged illegal sale of his rights as the author of a picture entitled "I Am the Law," and for infringement of the rights of his novel, "The Valley of Silent Men." Carmichael is suing for \$100,000 and all earnings.

Wolverine News Brevities

Monroe — A Junior Y. W. C. A. organization is being organized here. Bay City — Third and fourth class postmasters and trial jail carriers of Bay County have organized a county welfare council at the Bay County Post Office.

Monroe — The city commission of Monroe will ask the Federal Government to turn to the city two strips of land on Lake Erie near Monroe piers to be used for parks.

Hartford — The First State bank of Hartford, opened June 17. The former American bank building has been purchased by the new institution, and has been completely remodeled.

Wassau — A few minutes later Mrs. Alice Gundry had gotten out of bed to build the kitchen fire. Lightning struck the roof of her house, shot down to the bedroom and destroyed her bed.

Alpena — Senator and Mrs. Harry New of Indianapolis were at the Turley Lake club spending two weeks fishing and enjoying a rest. Senator New had nothing to say concerning his defeat for re-election.

Muskegon — The action of the officials of the State Normal college in banning smoking among female students, was endorsed by the boards of the W. C. T. U., of Michigan, in a post-convention session here.

Lansing — According to reports current in state circles, the candidacy of Congressman Roy O. Woodruff, of Bay City, to succeed Senator Truman H. Newberry in the United States senate, will be announced soon.

Kalamazoo — The will of Noah Bryant, founder of the Bryant Paper company, dividing an estate valued at \$300,000, has just been admitted to probate. The bulk of the estate was left to his daughter, Elizabeth J. Miliham.

Owosso — It is announced that the Michigan Pikers' association has changed the itinerary. Its annual tour, next month, at the request of the chamber of commerce, to include Owosso. The tourists will reach here, July 7, and remain over night.

Benton Harbor — Fire that swept through a row of cottages at Higan Park, a resort on Lake Michigan, two miles north of here, caused damage estimated at \$30,000. Four cottages were leveled and three others damaged.

Wakeside — Tony Eshenbach, a Serbian, died at the hospital here a short time after he had been shot during a raid by sheriff's officers on his home in search of liquor. The sheriff's party declares that he attempted to attack them while search of the house was being made.

Marshall — John Weddel, pupil in district No. 2 fractional, Burlington township, will attend the state fair at Detroit this year. At the expense of the fair society a number of having received highest stand in recent rural school, eighth at 10, diploma examinations. He received 90.7 per cent.

John — John Hilliker, 16 years old, was brought to the county jail here, and turned over to Sheriff Houghby by his father, Louis Hilliker, of Greenville, with the remark "I have done all that I can for him. It is your turn now." The boy, who forged a check for \$47.50, which is named to the father, died.

Detroit — Joseph H. Bert, Grand Truck engineer, lived up to the traditions of his calling although it cost his life, when his engine jumped the track near the foot of Hastings street and overturned, striking only of the passengers in the cars behind, he clung to his post and died, his hand clutching the throttle.

Lansing — Representatives of all the railroads operating in the state have notified the state public utilities commission that they will file reduced schedules for intrastate traffic to meet the recent rate reductions ordered by the interstate commerce commission for interstate traffic. The cut will average about 10 per cent on all freight rate schedules.

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That Luscious Raisin Toast!

A NEW delicious breakfast bread. Full fruited raisin toast! A new delight for the entire family.

Made with big, plump, tender, seeded raisins—Sun-Maid brand.

The raisin flavor permeates each slice. You can get such bread from any grocer or bake shop if you insist. No need to bake at home.

Once try it and you'll always have this kind. You'll serve it at least twice a week.

Fine food for business men and children due to the energizing nutriment and the iron of this famous, healthful fruit.

Make dainty bread pudding with left-over slices. No need to waste a crumb.

Order now for tomorrow's breakfast. But be sure to say you want "one of those full-fruited raisin loaves."



Sun-Maid Seeded Raisins

Make delicious bread, pies, puddings, cakes, etc. Ask your grocer for them. Send for free book of tested recipes.

Sun-Maid Raisin Growers Membership 13/00 Dept. N-2-3, Fresno, Calif.

Only Remaining Despot. The only despotism monarch left in the world today is the Amir of Afghanistan, who rules his country absolutely, ordering the coming and going of his people in all matters. He personally runs the affairs of religion, commerce, foreign affairs and domestic relations.

Thousands Have Kidney Trouble and Never Suspect It

Applicants for Insurance Often Rejected.

Judging from reports from druggists who are constantly in direct touch with the public, there is no preparation that has been very successful in overcoming these conditions. The mild and healing influence of Dr. Kilmor's Swamp Root is soon realized. It stands the highest for its remarkable record of success.

An examining physician for one of the prominent Life Insurance Companies, in an interview on the subject, made the astonishing statement that one reason why so many applicants for insurance are rejected is because kidney trouble is so common to the American people, and the large majority of those whose applications are declined do not even suspect that they have the disease.

Dr. Kilmor's Swamp Root is on sale at all drug stores in bottles of two sizes, medium and large. However, if you wish first to test the state public utilities commission that they will file reduced schedules for intrastate traffic to meet the recent rate reductions ordered by the interstate commerce commission for interstate traffic. The cut will average about 10 per cent on all freight rate schedules.

Well Said. Some one was urging Martha to tell her secret, when she sagely remarked: "A secret isn't a secret after it is told."

Sure Relief FOR INDIGESTION

BELLANS Indigestion 25 CENTS 6 BELLANS Hot Water Sure Relief 25¢ and 75¢ Packages, Everywhere

Mitchell Eye Salve For SORE EYES

Shave, Bathe and Shampoo with one Soap—Cuticura

W. N. CO., DETROIT, MICH. 25-1922.

Farmers, Attention!

Exchange for high-grade modern Chicago stock valued from \$10,000 to \$20,000, with net income from \$200 to \$1,000 per year. Write today. GEORGE STEWART 29 S. La Salle CHICAGO

Help Wanted

Laborers, 40c and 45c per hour. Carpenters, 70c to 80c per hour. Plenty of Steady Work for Good Men

Owen Ames Kimball Co. Building Contractors Michigan Trust Bldg. Grand Rapids, Mich.

ASTHMA

DR. J.D. KELLOGG'S ASTHMA REMEDY for the prompt relief of Asthma, Hay Fever, Cough and one dose relieves. FREE SAMPLE. Write to Dr. J.D. Kellogg, 100 Northrop & Lyman Co., Inc., Buffalo, N.Y.

Dr. J.D. KELLOGG'S ASTHMA REMEDY

DAISY FLY KILLER

ALL FLIES, MOSQUITOES, etc., killed. No harm to plants or animals. Lasts all season. Write for free sample. Write to Dr. J.D. Kellogg, 100 Northrop & Lyman Co., Inc., Buffalo, N.Y.

Kodak Developing and Printing

Any 6 exposure roll developed and one print made of each good for 25 cents; 10 and 12 negative rolls for 50 cents. Don't send stamps. G. & C. PHOTO CO. Northwestern Building, Drawer B, DETROIT

Work will be returned 24 hrs. after receipt. BUY A LOT ACROSS RIVER FROM DETROIT, near the Detroit-Windsor bridge. Buy with care. Write to G. & C. PHOTO CO., 217 Main St., DETROIT, MICHIGAN.

WANTED Common Laborers

machine molders, shakeout men and men to unload cars ovens. Previous experience not necessary. Lakay Foundry & Machine Company Muskegon, Michigan.

New Hair

To replace old, thinning hair, get back the hair you lost. Use the hair cream. It will grow the hair back. Write for free sample. Write to Dr. J.D. Kellogg, 100 Northrop & Lyman Co., Inc., Buffalo, N.Y.