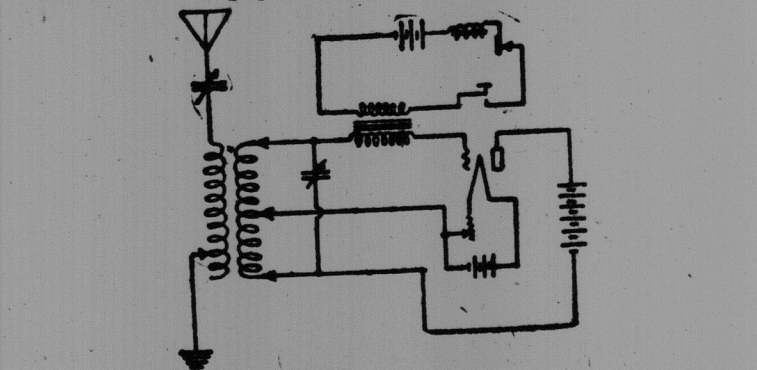


FIFTEEN MINUTES OF RADIO EACH DAY

By Edward N. Davis
Formerly Technical Electrical Expert For U. S. Government

Lesson No. 223.
SIMPLE BUZZER MODULATED TUBE TRANSMITTER.
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In order to render the signals, emitted by a vacuum tube transmitter, of such a form as to be heard on a crystal or simple tube receiver, the radiated waves must be modulated in some manner at an audible frequency. This result may be obtained in a number of ways. For example, an alternating current of audible frequency may be used as a source of plate potential, the radiated wave may be modulated by super-imposing a voice wave upon it as in radio telephony or the wave may be modulated by some form of chopper or buzzer connected in the grid of the tube transmitter circuit. Probably the cheapest and most flexible arrangement for small powered transmitters is to connect a buzzer in the grid circuit when calling a station or operating with a station equipped with a crystal detector and, by throwing a switch, cut out the buzzer when operating straight continuous wave telephony or telegraphy.



The diagram shows a simple tube transmitter of the inductively coupled Hartley type which makes use of a single coil for the plate and grid circuits but requires a separate coil in inductive relation to the first for coupling to the antenna circuit. The antenna circuit is tuned by means of the variable condenser, and variations in the number of turns in the antenna coil. The oscillating circuit is tuned by manipulating the variable condenser across the plate-grid coil and by varying the position of the plate potential on this coil which leads to the plate, grid and filament. This circuit may be used for covering short distances by employing receiving tubes or 8 watt transmitting tubes. When employing receiving tubes the plate potential may be supplied by blocks of ordinary "D" battery having a voltage of 90 or more but the drain on batteries of this type when 8 watt power tubes are used would be so great as to render such operation too expensive. The plate supply for power tubes may be a small transformer with a chemical or tube rectifier connected to the secondary of a small motor generator of suitable voltage can be used.

In order to secure modulation of the output of the tube transmitter a small transformer is connected in the grid circuit of the tube in the manner indicated in the diagram. In the primary circuit of this transformer are connected a buzzer, battery and key in series. The buzzer should be of the high frequency type, giving a clear tone which is accurately reproduced at the receiving station. The circuit shown, while lacking in some of the details which tend to increase the efficiency of a transmitter, requires the purchase of few parts which are not found around the average experimenter's table and is therefore suitable for the beginner in radio transmission. By substituting a microphone transmitter for the buzzer and key the same circuit may be readily adapted to use for radio telephony. Many amateurs employ a switch for throwing into circuit either a buzzer or microphone. This arrangement is desirable since greater ranges are covered with the modulated telegraph transmitter, but local communications can be handled more expeditiously by means of the telephone.

RECENT DEATHS

Mrs. James Burney.
The death of Euphemia Margaret Burney, widow of James Burney, of Upland Station, Kings county, occurred yesterday at the residence of her daughter, Mrs. J. S. Stephenson, 187 Paradise row, after an illness of about two months. Mrs. Burney, who was a daughter of the late John and Eliza Burney, was ninety-five years of age, just five years short of a century. Until the time of her illness had retained her faculties and was active and alert. She had resided in Kings county for the greater part of her life, Upland Station having been her home for many years. She had come to St. John to spend the winter with her daughter. All who knew her had a warm regard for her and her death will be sincerely mourned. She is survived by four daughters, Mrs. J. S. Stephenson, of this city; Mrs. James Kilpatrick, of Tittville, Kings county; Mrs. Scott C. Hill, of Bath, Me.; and Mrs. Louis Smith, of Wrentham, Mass.; and one son, James Burney, of Edmonton, Alta. The funeral will take place on Sunday afternoon at 1:45 o'clock from the residence of her daughter, Mrs. Stephenson.

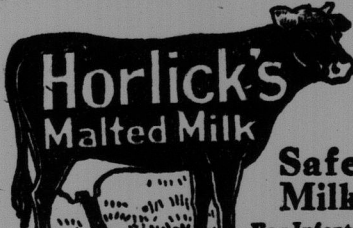
PIECE OF FISH BONE UNDER THUMB NAIL CAUSES DEATH

Boetou, Feb. 8.—Blood poisoning, which resulted from a small piece of fish bone becoming embedded in the flesh beneath one of his thumb nails, caused the death of Jacob W. Windell, sixty-eight, an employee in the market of J. B. Blood Company, Lynn. He was cut with a fish bone a week ago when the piece of fish bone lodged under his thumb nail.

Guard Your Eyesight

by having your eyes examined at the first sign of weakness. Some persons incur the grave risk of losing their sight by neglecting Nature's warnings simply because they are afraid of the expense. By coming to us expense is reduced to the minimum consistent with the best work. Come today.

K. W. EPSTEIN & CO.,
Optometrists,
4 King Square, Dufferin Hotel Block.



A Nutritious Diet for All Ages. Keep Horlick's Always on Hand. Quick Lunch; Home or Office.

Annual Clearance Sale

Decorated Pitchers and Teapots Less Than Half Price

\$1.20 Values	For 50c each
\$1.00 Values	For 40c each
80c Values	For 35c each
60c Values	For 25c each
50c Values	For 20c each

For This Week Only

W. H. HAYWARD CO., LIMITED
85-93 Princess St.

ACCUSES WOMAN OF WITCHCRAFT

New Jersey Folk Agog at Alleged Weird Practices of Antoinette.

Hackensack, N. J., Feb. 3.—Law against witchcraft, one of the oldest of New Jersey's statutes, one which was adopted from the old common law of England soon after the colony was founded, has been invoked in the arrest of Antoinette Marrone of Fairfield, and when the hearing is resumed before Justice of the Peace Baker many unusual things are to be revealed. The complainants are Mr. and Mrs. Michael Robbins of Fairfield, who said that when this woman was asked by Thomas Coalandretto to use her occult powers to locate his missing watch, she said she had it.

Next she insisted she cured the sick Robins baby and took \$50 as part of a \$200 fee. She then proceeded to work an alleged cure on the child and asked other members of the family to wear a small bag around the neck. The bag contained a mixture of herbs. This, the accused said, would drive the witch from the child and from the home.

Former Judge Joseph H. Lefferts of Passaic is prosecuting the witchcraft charge and says he expects to show the woman has caused much uneasiness in the foreign colony by her weird practices, as she has taken money under false pretence, practised medicine without a license and performed criminal operations.

BRIDE OF WEEKS KILLED BY TRUCK

Woman Married Only Short Time Dies Instantly—Twins Injured in a Taxi Smash.

New York, Feb. 3.—A well-dressed young woman, identified from Southern Boulevard car at 174th street, the Bronx, and became confused as a five-ton truck driven by William J. Harrison of New Haven drove down on her. She slipped on the pavement and the truck crushed her. The driver was arrested, and the police listed the victim as unidentified.

When David Pile, dress manufacturer, returned to his home at 2,074 Mapes avenue, the Bronx, he expected to find his bride of three weeks engaged as usual in preparing dinner. Instead, she was absent. Pile thought she had been delayed on a shopping tour. Finally he inquired at the Bathgate avenue station, where later he identified his wife as the victim of the motor truck.

Andrew and John McGovern, thirty-year-old twins, of 1,083 Prospect Place, Brooklyn, were taken to Swedish Hospital, suffering from contusions, when the taxis carrying them and three other brothers crashed into another at Prospect Place and Nostrand avenue, Brooklyn.

KNICKERS FOR OFFICE GIRLS; BOSS TO FURNISH FIRST PAIR

Atlantic City, N. J., Feb. 3.—Asserting his belief that his stenographers and other young women of his office would be more punctual in arriving at work in the morning, Harry R. Beliner of Newark, Vice President

Bargains For Men

In Our Clearance Sale Men's Best Quality Rubber—Nearly all sizes. \$1.15 Sale price. Men's Best Quality Rubbers—Heavy soles; all sizes. \$1.10 Sale price. Men's One-Buckle Overshoes—Sizes 7, 8 and 9. \$2.05 Sale price. Men's Two-Buckle Overshoes—Size 11 only. \$2.75 Sale price. Men's Four-Buckle Overshoes—Size 11 only. \$2.55 Sale price. Men's One-Buckle Lumbermen's Rubbers—Size 11 only. \$1.25 Sale price. Men's Five-Eyed Lumbermen's Rubbers—Size 10 and 11 only. \$3.00 Sale price. Boys' Best Quality Rubbers—Heavy Soles. All sizes. 80c Sale price.

These and many other bargains in our windows and on our bargain table await your inspection.

McROBBIE
Foot St. John 50 King Street

of the New Jersey Retail Clothiers' Association, declares he is going to insist that they wear knickers, instead of skirts.

"Once the novelty is worn off," he said, "I know the girls will be able to dress in half the time they take now, and I am thinking seriously of furnishing the girls with their first pair of knickers, and limbs would cease to be a novelty to men if they were always expected."

Fifth Bargain Announcement

In Connection with Our Free Hemming Sale

Next Week's Bargains offer variety and ample opportunity for choice. Look these values over carefully and you'll be able to see very plainly just why you should make needed purchases now.

Strong Bleached Sheet, 72 in. wide. Durable quality. Special 47c yd. Same quality 80 in. wide. Special 55c yd. Circular Pillow Cotton, 40 in. wide. Special 38c yd. 42 in. wide. Special 40c yd. 44 in. wide. Special 45c yd. Napped Sheet, 64 in. wide; grey only. Special 75c yd. Bleached Table Damask, 58 in. wide. Striped and diced patterns. Special 65c yd. "Boott" Mills Absorbent Towels. Size 18x36 in.; hemmed. Special 30c each. Wabasso Long Cloth, specially attractive prices; 5 yds for 90c; 5 yds for \$1; 5 yds for \$1.25. Ready Hemmed Pillow Cases; sizes 40, 42 and 44 in. Only 25c each. Pure Linen Damask Table Cloth; small sizes only. Suitable for breakfast or lunch cloths; 36 in. sq. Special \$2.00 and \$2.25. 45 in. sq. Special \$3.00 and \$3.40. 54 in. sq. Special \$4.00, \$4.25, \$4.80, \$6.30, \$6.75. English Printed Bed Spreads in green, blue and helio. A good useful size. Only \$2.50 and \$3.00 each. Two only in extra large size. Green and white. Special \$4.50. Time is getting short. Place your order now if you would take advantage of the free hemming offer. (Linen room, ground floor.)

Keep the sand and mud out of your home by having a COCOA OR RUBBER MAT

at the door.
'Phone (Main 2400) and get one today.
95c to \$3.00 each
(Carpet Dept., Germain street entrance.)

Manchester Robertson Allison Limited
KING STREET - GERRAIN STREET - MARKET SQUARE



"Home Journal" Patterns

For March Are Here

For making up any of the new washable fabrics now selling for spring and summer garments—you'll find these patterns ideal.

The styles they represent are exceedingly smart and patterns are very easy to understand and to use.

Among the latest "Home Journal" styles you will find clever adaptations of the fashionable draped dress; frocks with effective wide bertha; wrap coats of various kinds; box suits with three decker skirts; cross stitch motifs and borders for trimming; and the Children's styles in great variety.

No. 3829 is a Nurse's Five-Gored Apron.

Users will tell you that Home Journal Patterns are sure to bring successful results. Try them next time! Ask for free copy of "Good Dressing" at pattern counter.

(Ground floor.)

Found Relief For His Kidney Trouble

That's Why Another Man Recommends Dodd's Kidney Pills to Other Sufferers.

Mr. Eugene Provencher wants everyone to know the Benefit he Received from Dodd's Kidney Pills.

St. Julien, Wolfstown, Que., Feb. 2.—(Special.)—It is with great pleasure that I tell you how much my health has improved since taking Dodd's Kidney Pills. They have done me a great amount of good. For a year I suffered from kidney affection and now I am quite well. This statement comes from Mr. Provencher, a well-known resident here.

Dodd's Kidney Pills act directly on the kidneys, strengthening them so that they do their full work of straining all the impurities, all the seeds of disease, out of the blood.

Dodd's Kidney Pills are known all over Canada as a standard kidney remedy. They have made their reputation by doing good to people who suffer from any form of kidney disease.

Ask your neighbors about Dodd's Kidney Pills.

HE MUSTN'T PHONE, WRITE, CALL, LOOK AT OR TALK TO HER AGAIN

New York, Feb. 3.—Arrested because at the end of a card game at two o'clock the other morning he refused to leave the apartment of Dorothy Taylor, a Shubert show girl, Moses Goldman, twenty-three years old, of 870 Riverside Drive, heard Miss Taylor testify before Magistrate Sweetser in Yorkville Court that his persistent attentions were unwelcome and annoying. Goldman's ground for not quitting the apartment was that he was the girl's sweetheart.

"You hear that?" said the magistrate to Goldman after Miss Taylor had made her position clear. "Do you still believe you are her sweetheart?" "I am perfectly satisfied I am not," said the defendant.

"Well, I'll let you off with a suspended sentence this time," said the Court, "but you must never telephone, write, call, look at, talk to or molest the complainant again, in any way. If you do and she reports the matter, you will get six months in the workhouse."

On Sale Tonight AT London House

(Store open until 10 p. m.)

800 yards Duchesse Paillette Silks, all leading colors, as well as black and white. Buy what you need now for the making of spring garments. . . . At \$1.69 a yard

500 yards Wool Serges in navy, brown, black or grey, taupe, garnet or green. 34 inches wide; reg. \$2.75. Half price \$1.38 a yd.

150 yards of All Wool Navy Serge, 42 inches wide—Half price, 69c. yd.

400 Hemstitched Pillow Slips, 40 to 44 inch; reg. 50c. Sale Tonight 39c. each

300 White and Colored Turkish Towels, large size—Sale Tonight 23c.

250 Fine Bleached Cotton Sheets. Sale Tonight \$1.29 each

200 Fine Irish Huck Towels. . . . Sale Tonight 19c. each

1000 yards New Cretonnes, newest colorings and designs, 36 inches Sale Tonight 29c.

Just in—1000 yards Double Border Curtain Scrim, white, cream or ecru. 5 yards for 69c.

Circular Chintz Covered Cushions. . . . Sale Tonight 89c. each

You will also find interesting values in Hosiery, Gloves, Neckwear, Blouses, Ready-to-wear.

Our famous annual notion sale in full swing tonight. It is truly the year's greatest event for housewives, dressmakers or milliners. Buy freely for future needs and make a goodly saving.

London House

F. W. DANIEL & CO. HEAD KING STREET

Going-Out-of-Business Sale

Balance of goods must be sold out before March 1st to make room for new tenant.

Lease sold to Mr. A. E. Everett, who opens up another line of business at this stand.

One more month to procure your needs at cost prices and less.

Books, Wall Paper, Borders, Toys, Dolls, Fancy Goods, Notepaper and Envelopes, etc.

Borders, 1c. yard up. Wallpaper 5c. roll up. Fancy Goods, half price. Copyright Books, 59c. and \$1.29. All other lines at less than cost.

D. McARTHUR
84 King Street

FOR BABY

"Safety First"

Four generations of babies have been kept clean, fresh, fragrant, and free from skin troubles by the use of

BABY'S OWN SOAP

Best Baby Soap Best for You

ALBERT SCAPS LIMITED - MONTREAL

LOCAL NEWS

Five classes for girls have been organized by Miss Greta Ferris, R. N., at the St. John Health Centre. There is a course of twenty lessons in home nursing and allied subjects. There are two classes from the Y. W. C. A., a C. G. I. T. class, one from St. Joseph's school, and one led by Miss F. Warwick.

Among the many friends of the Natural History Society in the city is Dr. L. A. Langstroth, who has aided greatly in gathering a valuable collection of Canadian coins and currency. A new case has been placed in the hallway of the main floor of the museum to accommodate some of these.

At a meeting of the King's Daughters last evening, with Mrs. H. W. Robertson, the president, in the chair, reports from the Farralline Home in Fredericton were received. Many helpful suggestions were made in connection with the upkeep of the Home. Arrangements were made for the provincial convention which will be held here this summer, and also for the valentine tea and sale. A copy of the King's Daughters' Birthday Book was presented to the order by Miss Alice Rising.

Tenders for the construction of the city's sub-station will be considered at a meeting of the Civic Power Commission this afternoon at City Hall, it was announced yesterday. The tenders, at present, are in the hands of the commission's engineers and their recommendation will guide the commission in granting the contract. Major R. A. McAvity, chairman of the commission, is not expected back until the middle of the month.