

FIFTEEN MINUTES OF RADIO EACH DAY

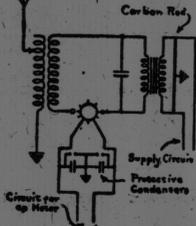
By Edward N. Davis
Formerly Technical Electrical Expert For U. S. Government

THE PREVENTION OF "KICK BACKS" FROM TRANSMITTERS.

In the vicinity of radio transmitters employing high voltages such as the common form of amateur spark transmitter operated from the lighting circuit, there is induced in wires for other purposes current which may be of sufficient amplitude to cause serious damage to the wiring and devices connected to it. Lightning circuits in particular, are liable to damage since the transformer is operated from the same line and direct "kick backs" of high voltage may cause short circuits or burnings out of lamp filaments or meters.

In order to guard against any of these mishaps it is common practice to employ special devices known as "kick back" preventers or protective condensers. Essentially such a device consists of some sort of path for the high voltage currents, so that they may pass to ground without damaging the line or apparatus connected to it. One form of protective device consists of a carbon rod having very high resistance connected across the line near the radio transmitter with the middle point grounded. Another form of protective device consists of two condensers of several microfarads capacity each connected in series across the line with the middle point grounded. The condensers themselves are protected against break down by small spark gaps across the terminals of each condenser set so as to break down at the maximum safe voltage which the condensers will stand, the discharge thus taking place across the air gap rather than through the condensers.

In transmitting installations employing motor generators or motors it is customary to connect protective devices across the fields of these machines in order to prevent possible damage from high potential kick backs. Commercial installations are usually made with all the feed wires run in conduit or lead-covered wire is used, the conduit or lead covering being connected to ground. This method is effective in reducing trouble from induced currents but will not prevent direct kick backs in the line from the transformer itself. It is necessary to employ the carbon resistance rods or condensers connected to ground eliminate direct kick back trouble.



When installing a radio transmitter a separate ground from that used for the lighting system of telephone should be employed if possible. This will greatly reduce the amount of noise on the telephone line and will aid in preventing damage to the light wiring. Telephone lines may be protected by means of condensers of very small capacity in series across the line with the midpoint grounded. Telephones and lighting systems are usually grounded on the water pipe so that it may be necessary to install a counterpoise or other special grounding system in order to prevent the possibility of causing interference with either of these systems. It is also necessary in some cases to bridge short gaps between steam heating systems and other pipes or wiring with wires in order to prevent sparking when the transmitter is in operation. This is a condition which is usually found where the power used is high and is seldom found in amateur stations. (All Rights Reserved by United Feature Syndicate. Reproductions Prohibited.)

TREATMENT BY SERUM

Great Progress Made Toward Standardization.

Paris, Nov. 24.—(By Mail)—The International Conference of medical experts, which has been held in Paris this week, by the League of Nations health organizations, at the invitation of the Pasteur Institute will end tomorrow.

Professor George Dreyer, of the Pathological Institute, Oxford, states today that great progress has been made towards the standardization of anti-pneumonic, anti-meningitic and anti-dysenteric sera, and definite advances had also been made toward agreement in the direction of standardization of the sera-diagnosis of syphilis.

The main object of these conferences is to ensure that when a patient who has been under medical treatment in one country presents himself to a doctor in another country, it shall be at once clear to the doctor in cases where the patient has been diagnosed or treated by means of serum, exactly what strength of serum has been previously used. At present, the mere name of the serum is no guide to its strength. Further conferences will be held as soon as the work done in this field by medical experts in various countries holds out promise of further agreement in the direction of standardization.

SOLVES FARM PROBLEMS.

Commodity Council Plan Formed to Handle Crop Situation.

In an effort to solve certain of the big agricultural problems on its hands, the United States Department of Agriculture announces the formation of the Commodity Council Plan, which has recently been put into operation and which brings all the various persons interested in the problem together into a council where each may present his views and where a definite inclusive policy may be decided upon. In the past different phases of a crop situation, for instance, have been handled separately by the various bureaus and offices.

Already councils have been called to discuss the cotton and potato situations and recommendations have been made for action that will be beneficial in view of present conditions. Department men who are specialists in the culture of crops, in soil, diseases, pests, grading and marketing, each contributed to the final recommendations. From time to time other commodity councils will be called to take up the problems that are troubling the producers of various other crops and live stock.

As a result of the Potato Council it is expected that the usual waste and loss resulting when a very large crop is raised may be greatly reduced. The per capita consumption of potatoes in the United States is usually about 32 bushels, but this year enough potatoes have been produced to supply each person with about four bushels. Because of this situation, which was discouraging to potato raisers, the department, through this council, made certain recommendations, which were sent out to the principal potato-producing states. The council recommends that farmers be advised to carefully grade their crop and ship only the best, suggesting that if all of the crop, including culls, were shipped food would rot or spoil in the central markets or in transit, markets would be glutted and the price forced down to a ruinous level. Such marketing would result in much waste all along the line from the field to the market. The council also made recommendations on the utilization of the poorer potatoes and culls kept on the farm, such as storing for future marketing, feeding to live stock and, in certain localities, selling to starch and flour factories. It was also the advice of the Potato Council that fields be picked clean of culls and diseased tubers so as to protect succeeding crops from disease.

Another group of department men was called together by the assistant secretary to take up the problems of the cotton farmers. These men are working on the problem of what the department's policy shall be for the present in making recommendations for fighting the boll weevil, the development of one-variety cotton communities, the

IF YOU SUFFER FROM RHEUMATISM—
SPINAL ADJUSTMENTS
For all diseases of any part of the body, lumbago, sciatica, neuritis, stiff joints or muscular pains or soreness, see Dr. TALBOT, the expert drugless physician, whose scientific treatment of such troubles has met with phenomenal success. DR. TALBOT is at his office, 50 King's square, St. John, every Monday, Friday and Saturday. Phone Main 3821.

Hundreds of cured patients in New Brunswick are living testimonials to his successful treatment.

growing of a diversity of crops, &c. A plan similar to the Community Council's was used recently when a group of men from various bureaus was brought together to consider the question of the use of peat as a soil improver or fertilizer. As a result of all the information brought together and discussed from various angles, the department decided to make a public statement to the effect that peat has a very low fertilizing value, contrary to the claims frequently made by those wishing to sell it for fertilizer. It is thought that the council plan will result in getting out prompt recommendations in emergencies, and farmers and others will be able to get a concise view of the department's stand and the reasons for making recommendations.

LOCAL NEWS

Wonderful Bargains in half and dollar—Quality Millinery, 120 Charlotte, Store open evening. 12-24

FIRST YET "Strand Phonograph" Queen Anne design, as beautiful musically as it is in design. Find all makes of records, John J. Prosdhan, Royal Hotel, 6012-12-23

GIFTS FOR SMOKERS. Case pipes, \$1.85. Louis Green's Clear Store, 89 Charlotte St. Free coupons. 0991-12-20

BARGAIN FEAST of ladies and gents Xmas footwear at K. and H. Boot Shop, 205 Union St. 12-23

CUT IN TWO Prices of Xmas footwear, K. and H. Boot Shop, 205 Union St. 12-23

NOT EXHAUSTED We still have plenty of ladies and gents Xmas footwear at extremely low prices. K. and H. Boot Shop, 205 Union St. 12-23

Ladies' felt cosy corner slippers in black, brown, red and grey. Mostly samples. Sizes 3, 4 and 5. Regular price \$1.50, for 75c—Levine's, 90 King St. 12-20

A NEW ARRIVAL. We have just received another large shipment of ladies and gents Xmas slippers to be sold at extremely low prices. K. and H. Boot Shop, 205 Union St. 12-23

ARENA SKATING RINK. Everybody is buying a season ticket for the Arena. Have your tickets. Secure at Phonograph Salon, 23 King Square and Arena, Main 224. 8911-12-23

FOR POOR AT CHRISTMAS. The rooms of the St. Vincent de Paul Society, 146 Waterloo street, will be open on Wednesday and Thursday afternoon and evening for the receipt of contributions. 6195-12-22

AT THE ARENA. Good ice for skaters. Rink open afternoons and evenings. Public assured of safety, health and pleasure. Season ticket best Xmas gift for your children. 6238-12-23

Bargains in every line, special for Xmas shoppers, at Bassett's, 282 Prince Edward St. 12-23

Waterman's fountain pens at Hawker's Drug Store, 628 Main street. 12-25

NOTICE. The office of the Standard Business College will be open from 10 to 12 every morning after Christmas for the benefit of those wishing to make inquiries about business courses. New term opens January 4. 12-23

THE TASTE IS O. K. (Toledo Blade.) Prohibition has come to stay. The people who say it won't last used to talk the same way about grapefruit and now they like it.

Hair is to be worn off of the ears and earrings are now fashionable.

Hand Painted Glassware Records and Victrolas Ivory Stationery Toys and Dolls Mottoes Autographic Kodaks Snap Shot Albums

Games Ideal Fountain Pens Framed Pictures Trimming for Trees Souvenir Leather Goods

Albums for Records Teddy Bears

Records Oval Frames Cribbage and Chess High Class Pictures Eversharp Pencils Sets for Bridge.

J. M. ROCHE & CO. LIMITED 94-96 KING ST. Special Bargains for Morning Shoppers. 12-23

AN OUNCE OF PREVENTION
During cold, damp weather take one
Laxative BROMO QUININE Tablet
just before retiring every night.
Its tonic and laxative effect will fortify the system against Colds, Grip and Influenza.
30c per Box. E. M. Grove

MILLIONAIRE CHUCKLES OVER SAVING A FEW DOLLARS

(B. C. Forbes, in Forbes Magazine, N. Y.)
Millionaires hate to be "easy marks." They bitterly object to being forced simply because they are rich. I talked the other day with a business leader who once was private secretary to the late Ogden Mills, the multi-millionaire financier. Mr. Mills had a valuable watch which he always carried. Often than once he broke the mainpring. He was always careful personally to take the watch to have it repaired. He felt that he was overcharged every time. So one day he had his young secretary to take the watch and have a new mainpring put into it.

"Don't tell them the watch is mine," he warned the secretary.
When the watch was brought back he asked very eagerly, "How much did he charge?"
"Four dollars," he was told.
"Ha ha!" he chuckled, as gaily as a school boy, "I got the better of them this time. This is the first time I have had a mainpring put in this watch for less than twenty dollars."

The ex-secretary added that Mr. Mills was more tickled over this saving a few dollars than he would have been over making \$50,000 in an ordinary business deal.

A bootblack complained to me the other day, "The people that has a lot of money hold on to it." "Maybe that's the way they have a lot," I replied. "Gee!" he exclaimed, "maybe there's something in that!"

AROUSSED BY BURGLARS. GIRL CAUSES ARRESTS

New York, Dec. 21.—The alertness of a young woman who was awakened by sounds of burglars in her home after an exciting search. Miss Lucille Long, seventeen years old, who was asleep on the second floor of her home at 1,720 Seventy-fifth street, Brooklyn, was aroused at three o'clock by noises on the floor below. Getting up, she tipped across the hall and called her father, James S. Long, a Deputy Collector of Customs.

Long telephoned the police, who sent a motor patrol containing twelve officers to the house. On the way the machine ran into a sand pile at Eighteenth Avenue and Seventy-fifth street, injuring Patrolman James M. King and breaking the windshield of the automobile. An ambulance was summoned from Coney Island Hospital and King was left in charge of another policeman, while the motor patrol continued to the Long home.

The house was surrounded and searched, but the robbers had left. The police searched the vicinity, however, and found two men in a yard back of 1,740 Seventy-fifth street. They said they were Peter Martelli, seventeen, and Michael Marrelli, nineteen, both living on Grand street, Brooklyn. They were arrested and arraigned in the Coney Island Court on a short affidavit charging suspicion of burglary. Magistrate Gesmar held them in \$2,000 bail each for examination.

FINDS FAMILY OF FIVE POISONED BY GAS

All Unconscious When Relative, Getting No Response at Door, Breaks a Window.
New York (Dec. 21)—A family of five living at 286 Stockholm street, Brooklyn, are in the Wyckoff Hospital suffering from gas poisoning. The family consists of Charles Rosenthal, twenty-eight, his wife, Mrs. Bertha Rosenthal, thirty-eight, and their three children, Robert, ten; Charles Jr., eight, and Ephie, three.

The family retired late, leaving a gas stove burning in the kitchen. Charles Barnett, a brother-in-law of Rosenthal, called early in the morning and being unable to arouse any one, broke a window pane. He found all of the members of the family unconscious. Patrolman Hafner of the Wilson Avenue Station called an ambulance from the Wyckoff Heights Hospital, and Ambulance Surgeon Linsky took the family there. It was said that all five would recover.

It was reported at first that the family was suffering from food poisoning.

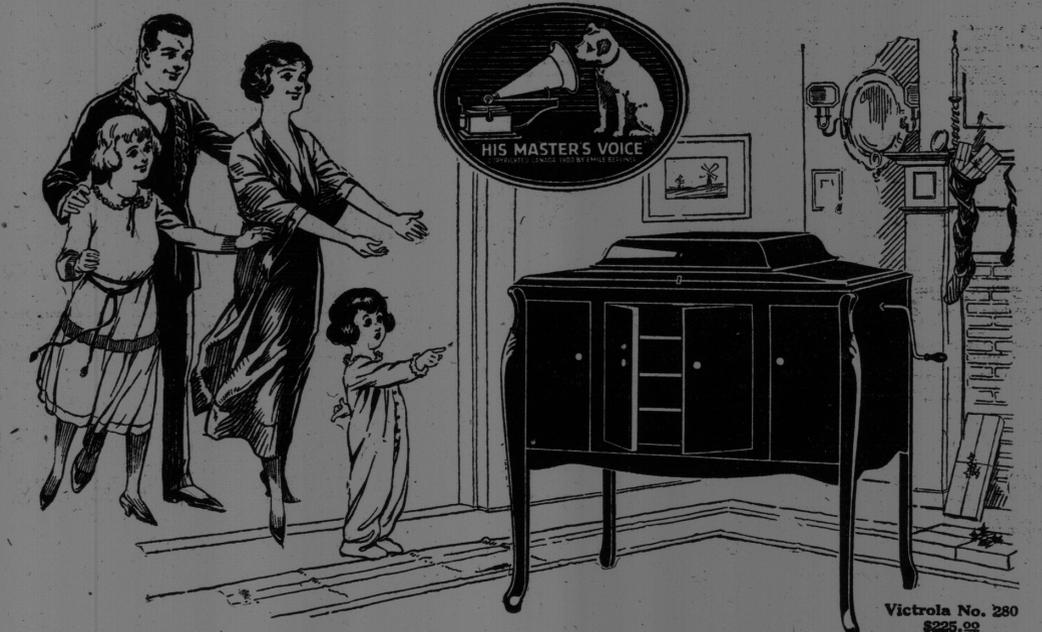
SWEDISH INVENTOR HAS NEW OIL LIGHT

Claims Whiter and Much Cheaper Light Than Electric or Gas.
Edison enabled us to enjoy the benefits of electric light, Count Weisbach's mantle made it possible to have the incandescent gas light, but it remained for a Swedish engineer named Johnson, now living in Montreal, to devise a lamp that would burn ordinary, everyday kerosene oil and produce a light said by the many scientists who have seen it to be whiter than electric. The lamp is as simple to operate as the old style oil lamp, burns without odor, smoke or noise and is proving a sensation where oil light is needed.

Mr. Johnson offers to send a lamp on ten days' free trial and will even give one to the first user in each locality who will help introduce it. A letter addressed to O. K. Johnson, 246 Craig street W., Montreal, will bring full particulars about this wonderful new lamp. He has an interesting agency offer, too.

In The Light Of Xmas
Wouldn't it be fine to rub your eyes and behold a beautiful new piece of furniture for an Xmas gift. It surely would be a surprise.
Xmas Gifts for father, mother, brother, sister or sweetheart, in a large assortment to select from.
Willow Chairs and Rockers from \$10.00 up. Leather Chairs and Rockers from \$12.00 up.
Smoking Stands, Ladies' Work Baskets, etc. For the kiddies, High Chairs and Rockers, Kiddie Cars, etc.
See Our Windows
AMLAND BROS., LIMITED
19 WATERLOO ST.

Blue Bird Tea
"BRINGS HAPPINESS"
but there was no evidence whatever to support this theory.
CANADA AT WASHINGTON (Dallas Texas Journal)
Canada, according to a story out of Washington, is bent upon having direct diplomatic representation at Washington.
The case of Canada with respect to relations with the United States differs from that of any other British Dominion. Canada is so near a neighbor, so closely have her interests and ours become intimate, and Canada has grown independent, great, important by right of her stature and of her many vital interests she is entitled to direct diplomatic representation, if that could better serve those interests, or even if her people prefer it.
A rubber tire manufacturing plant will soon be in operation at Portland, Oregon.



For a Merry Christmas and New Years of Happiness

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Ask the nearest "His Master's Voice" dealer to show you the numerous styles, sizes and finishes designed to suit every taste and circumstance. He will gladly reserve whichever one you choose and deliver it at Christmas.

BERLINER GRAM-O-PHONE CO., LIMITED MONTREAL
New Console Victrolas \$135. to \$485.
Other Models \$37.50 to \$615.
Convenient terms can be arranged, if desired.

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Records are very welcome gifts
They are always the most acceptable gifts you could present to any Victrola owner.
You may spend any amount from 75c up, but when you give "His Master's Voice"—Victor Records you know you are giving THE BEST.