FIFTEEN MINUTES OF RADIO EACH DAY

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

> Lesson No. 230. POINTS TO REMEMBER

REMEMBER THAT:

Vacuum tubes should be removed from their sockets while changes are being made in the wiring of the set, as the wires leading from the plate battery may accidentally be connected to the filament circuit, in which case from 40 to 60 volts may be impressed upon the filament. This will result in serious injury to the filament due to the excessive flow of current. If several tubes are connected in parallel in an amplifier circuit do not remove one of the tubes without opening the filament battery circuit as the increase of current in the remaining filaments may be sufficient to burn them

Touching the surface of a crystal has the effect of reducing its sensitivity and consequently reducing the range of recetpion. Exposure to the air may also result in lowered efficiency due to the oxidization which takes place on the surface. A remedy for this condition is to scrape the surface lightly with a pen-knife.

It is important that the resistance of the antenna system be kept as low as possible, for the less resistance there is in the antenna the greater will be the strength of current which flows from the antenna to the receiving set. Provision should also be made for keeping the system practically stationary. This is particularly necessary in short wave C. W. transmission as considerable wave length variation results if there is swaying in the "lead in" or antenna wires. When a counterpoise is used it should be thoroughly insulated from the ground by the use of wooden supports.

thoroughly insulated from the ground by the use of wooden supports.

In receiving sets employing regeneration, the effect of body capacity or other stray capacities may seriously interfere with the reception of signals. To eliminate this source of interference, the receptacle in which the apparatus is mounted should be lined with than sheet copper and this lining carefully grounded. If sheet copper is not available, a fine metallic mesh of brass or copper may be used. None of the fixed or moving parts of the set should be in contact with the lining which acts as a shield and practically eliminates the annoying effects of body capacity.

In receiving circuits employing several stages of radio-frequency amplification, the amplifier tubes have a tendency to oscillate due to back coupling. This may be avoided by connecting a potentiometer of 200 to 300 ohms across the filament circuit and so-regulating the position of the sliding contact of the potentiometer that the grids of the amplifier tubes may be adjusted to a small value of positive potential, thus preventing oscillation of the tubes and securing stability of operation.

A regenerative receiver employing a feed-back arrangement such as the

A regenerative receiver employing a feed-back arrangement such as the "taned plate circuit," "tickler coil circuit" or similar variations, is practically equivalent, in the reception of radio signals, to a receiver using one stage of r dio-frequency amplification and a non-regenerative vacuum tube detector circuit. This is due to the fact that in the regenerative circuit the fication and flow in the plate circuit are coupled back to the grid circuit and cause reinforced grid voltage variations which result in greater variations in the plate current.

The range of a receiving station is exceedingly difficult to predict. Geographical and atmospherical conditions exercise powerful influences on the reception of signals and it is a matter of common knowledge that the range of a receiver is greater at night than in the daytime. Under normal conditions the average range of a crystal receiver used with an outdoor antenna is about 25 miles and with an indoor antenna about five miles. A single vacuum tube receiver with outdoor antenna has a range of approximately 75 miles and with two stages of amplification this distance may be increased to several hundred miles.

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RECENT DEATHS

The death of Eddon M. Reed occurred at the General Public Hospital on Saturday. Mr. Reed, who was in the forty-fifth year of his age, was a foreman in the Nashwaak pulp and paper mills. He is survived by his wife, his father, William J. Reed, of Chatham; one son, Arthur, at home, one daughter, Ivy at home, and one sister, Mrs. Robert Loggie, of Chatham. The funeral will be held on Tuesday afternoon at 2.30 o'clock from his late residence 256 Tower street, West End.

The death of Michael J., son of the late Michael and Ann Kelly, occurred yesterday at the Infirmary after about you months' fillness. Mr. Kelly was a

James T. Pickle.

curred yesterday afternoon suddenly at the General Hospital. He was taken suddenly ill at home during the

The death of Michael J., son of the late Michael and Ann Kelly, occurred yesterday at the Infirmary after about two months' filmess. Mr. Kelly was a James T. Pickle. well known and respected resident of the North End and his loss will be

Don't Forget! **Grand Carnival** Torch Light Parade

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Final plans are now being made to make this the greatest affair of its kind ever held in Eastern Canada.

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Men's One-Buckle Oershoes— Sizes 7 and 9. \$2.05

Men's Four-Buckle Overshoes-Size 11 only. \$2.90 Men's High-Cut Khaki Over-

Shoes — Size J0 \$3.75 only. Sale Price Boys' Two-Buckle Overshoes—Sizes 3 and 4 only \$1.85 Women's Button Overshoes— Sizes 21-2, 41-2, and 51-2

only.
Sale Price \$1.50 Men's Good Quality Rubbers— Heavy soles; all \$1.10

These and many other interesting bargains are shown in our windows and bargain table.

McR OBBIE Foot St. John 50 King

friends. He leaves one brother. William J. Kelly, baggagemaster at the Union depot, to mourn. The funeral will be held on Tuesday morning from his brother's residence, 51 Murray street, at 8.45 o'clock to St. Peter's church. The burial will be in the new Catholic cemetery.

FREE ILLUSTRATED CHAMPION-SHIP BOOKLET AT EMER-SON & FISHER'S.

ings of greatest speed skating champions, with their records, as well as other records held by speed skaters, will be given free for the asking, while the supply lasts, at Emerson & Fisher's. let, beautifully illustrated with engrav-

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ONE ONLY, LADIES' RAC-COON COAT-40 inch long; 3 stripe border. \$175 Sold for \$275. Now

FINEST QUALITY HUD-SON SEAL - Large shawi collar and Bell cutts of Alaska Sable (Skunk.) Was \$475. \$375

PERSIAN LAMB-Skunk collar and cuffs, \$225 \$300. Now

2 LADIES' LEOPARD COATS - Former \$150

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good quality cord cloth in neat stripes and patterns. Well made with full sized bodies. Really Very Special Value. At \$2.75—Mercerized
Cloth with colored
stripes; or plain
cloths with mercerized stripes in self
color. Also a few
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cloths in spring varieties.

You shouldn't miss this opportunity Sale of Dress Homespuns

For This Week Only Newest mixtures in cocoa brown, fawn, sapphire, Mary Pickford blue, orchid, old rose and green. 54 to 57 in. wide—Sale, \$1.59 yd.

A Very Special All Wool Serge Particularly suitable for women's and misses' dresses, etc. Showing in Copen., navy and light or dark brown. 42 in. wide—Sale 88c. yd. (Dress Goods-Ground Floor.)

MORE FINDS IN TOMB OF KING

M. 1707.

The charies or namented with figures of negroes and Asiatic captives delicately embossed in gold. The heir-order of the charies tall the charies are the charies tall the charies and the charies tall the charies are the ch

Stores open 9 a.m.; close 6 p.m.,

This Big Store is Ready With Many Advantageous Bargains For Carnival Week

Our Own St. John People as Well as Strangers Visiting in Our City Will Benefit Greatly By Taking Advantage of the Many Bargain Opportunities Especially Assembled for This Event.

Almost every department of this store contributes something of interest to this value-giving occasion.



Many Pretty House Dresses Very Low Priced for Carnival Week

You'll find a fine variety of colors, sizes and fabrics to choose from. They are fresh, crisp dresses in becoming and easily laundered styles. Ginghams, Chambrays and the popular nurse's stripe all included.

Extraordinary Value at \$1.95, \$2.25, \$3.25

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Eight attractive patterns to choose from. These are nicely trimmed with colored loops. Dresses of this type will be just what you're needing for summer afternoons in the country; or for house wear in town. All sizes to 44 inches.

Really Wonderful Value, \$2.40 Each

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Brand New Fresh Goods You Are Sure to Admire Plain Ratines in Copen, peach, green, helio, rose and Lingerie Krinkles in helio, mais, sky and pink with very dainty designs. 30 inches wide...............65c. Yard New Ginghams in stripes and small and medium blocks and checks. 32 inches wide......29c. Yard Fancy Voiles in an assortment of fashionable patterns Ripplette-An excellent material for women's and children's wear. Requires no ironing. Showing in stripes and checks. All colors. 27 inches wide.....19c. Yard (Ground Floor.)

Bargain Specials from Trimming Department

Children's Flouncings in twelve dainty designs. Very suitable for infant's or children's dresses. 27 inches wide Sale, 75c. Yard

(Ground Floor.)

Exceptional Values in Rugs and Remnants of Linoleums and Oilcloths

In these sale groupings you will find English Axminsters in Oriental colors and designs. Size 3 yards x 21/2 yards \$35.00 Size 3 yards x 3 yards \$40.00 Size 3 yards x 31/2 yards \$50.00 Size 3 yards x 4 yards \$55.00 English Seamless Tapestries from \$15.00 up. Heavy Jute Stair Cerpets, 5/8 yd. wide, 40c. yard; 3/4 yd. Cocoa Mats, 85c. each.

Rubber Mats, \$1.00 each. Hit or Miss Reversible Wash Rugs-Three sizes, \$1, \$1.50,

(Germain Street Entrance.)

Children's Garments

White Middies, with Navy or Copenhagen Collars, 98c., \$1.50, \$2.50. White Rompers, with blue or pink pockets and handworked bunnies. Special \$1.00 garment.

Chambray Dresses, trimmed with dainty checks.

Different colors. Special \$1.50. Chambray and Gingham Dresses, with bloomers. Sizes 2, 3 and 4 years. Special \$1.00. (Children's Shop-2nd Floor.)



Blankets, Comfortables, Furniture Coverings At Carnival Week Prices

White All Wool Blankets nicely finished at ends. Regular size. Sale \$8.00 pair.

Fancy All Wool Blankets, suitable for lounge covers or extra bed coverings. Latest patterns. Pinks, browns, blues.

Sale \$6.25 each.

"Our Own Make" Bed Comfortables, extra large size. Filled

ables, extra large size. Filled with best grade carded cotton. Sale \$4.95 each. Fancy Chintz and Art Sateens

for over-curtains, c u s h i o n covers, etc. 30 in. to 36 in. wide. 25c. yard.

Tapestry Furniture Coverings, in seven designs. All 50 in. wide. Sale \$1.75 and \$2.25 yard. (Housefurnishing—2nd Floor.)

Your Opportunity To Buy Curtains

Carnival Week Prices Are Very Attractive Plain Marquisette Curtains with hemstitched borders; extra wide hems 2½ yards long.

Special \$3.00 pair.

Frilled Marquisette Curtains in spotted pattern. White only.
Two yds. long. Special \$3.25

Grecian Net Curtains in heavy quality with wide or narrow lace edges. 2½ yards long. Special \$3.50 pair.
Extra Heavy Net Curtains with fringe on edge. 2½ yards long. Special \$3.00 pair. (Germain Street Entrance.)

Dainty Whitewear Very Specially Priced

Night Gowns made from White Cambric, trimmed with colored bindings of orchid, sky or honey dew. Only 98c.

Night Gowns of heavy flesh
Crepe. Only \$1.15 each.
Night Gowns, trimmed with fine
embroidery and wash ribbon.
V neck style. Only \$1.50 Special Two-Piece Combina-

tions-Camisole and skirt or corset cover and drawers. \$1.50 and \$2.00. Corset Covers, trimmed with lace and embroideries. Very special 50c., 75c. 85c.
Fancy Silk Camisoles, \$1.95 ea.
Bloomers in Nainsook, Crepe or
Brocaded Sateen; flesh and
white. 50c., 70c. up to

New Models \$4.50 and \$6 each You'll need to see these to fully appreciate the value they offer. (Millinery Salon—2nd Floor.)



It would pay any woman to buy up an etxra supply while these very low prices are avail-

Two-dome French Kid Gloves in tan, 'champagne, black 'and white with black stitching,

Bargains in Women's

Handkerchiefs All Linen with plain hems. Sale ½ dozen for 70c. Italian Linen with two or three rows of hemsettching. Sale, 3 for \$1.00

Sale of Underskirts Don't Miss Getting One of These!



Fine mercerized material in fancy flowered patterns.
Sale Price, 90c. Each Silk finished material in fancy flowered patterns.

Sale Price, \$1.15 Each
(Second Floor.)

Women's White **Pull-Over Sweaters**

Heavy rib and jumbo-knit.

Made with comfortable convertible collars....\$5.75 and \$6.90

(Costume Dep't.—2nd Floor.)

Women's and Children Hosiery Very Low Priced

Children's English Heather Hose, sizes 6 to $7\frac{1}{2}$ inches.
Sale, 75c. Pair Women's English Heather Hose, ribbed\$1 Pair Plain\$1.25 Pair
Women's Cashmere Hose with
embroidered ankles. Champagne
shade only....Sale, \$1.50 Pair
Women's Ten-Button Gaiters
in brown, grey and black.

Sale, 50c. Pair Women's Eleven-Button Gaiters in brown, grey and fawn. (Hosiery Dep't-Ground Floor.)

The Art Room Offer at Very Low Prices

Community and Par Plate Silverware in knives, forks, spoons and odd pieces of many China Cups and Saucers, Plates, Tet Pots, Pitchers and Water Jugs.
Semi-Porcelain Plates, Sauce Diches, Cereals, Soup Plates, Cream and Sugars, Platters, Casseroles, etc. (Germain Street Entrance.)

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