POOR DOCUMENT

THE EVENING TIMES AND STAR, ST. JOHN, N. B., THURSDAY, DECEMBER 14, 1922

y Wisely - Give Wisely

Extra Special 3 Sauce Pans

1-2-Quart Tea Mettle

luminum Kitchen Utensils Specially Priced at \$1.49

In your Christmas giving this year give only sensible, worth-while presents—these are practical times. We would suggest one of these

(Regular values up to \$2.50)
The articles included in this one-price sale are:

TEA KETTLES PERCOLATORS

WATER PAILS

DOUBLE BOILERS SAUCE PANS

Emerson & Fisher, Ltd., 25 Germain St.



COMMUNITY CLUB

Japan has 117 pencil factories.

For every

Keep on hand a good

supply of Heinz Spa-

ghetti-ready cooked,

ready to heat and serve.

in an emergency-but

always welcomed by

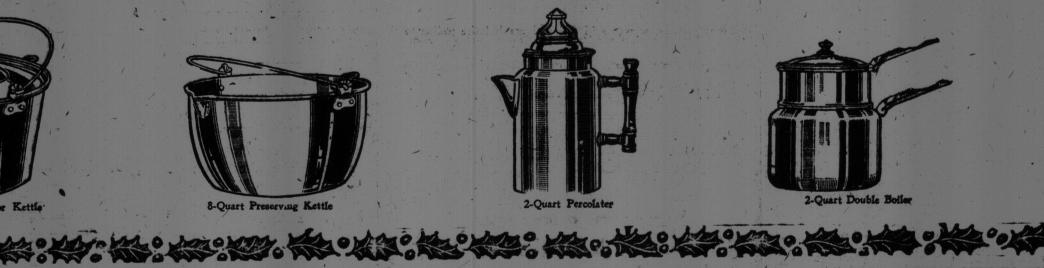
the whole family for

regular, every day

food a family "grows

occasion

PROVIDES LIGHTS







Extra Special

2 qt.

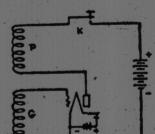
Double Boiler

\$1.00

FIFTEEN MINUTES OF RADIO EACH DAY

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

Lesson No. 181. THE OSCILLATING VACUUM TUBE. The action which takes p'ace in a simple oscillating vacuum tube circuit may be understood from a careful study of the operation of the circuit shown in the diagram.



In studying the operation of this circuit the filament terminal connected to the negative pole of the plate and filament batteries is considered the point of zero potential as in discussing most tube circuits. The coupling between the coils "P" and "G" is tight so that they act like the primary and secondary of a transformer, that is, a varying current in "P" would produce a varying current in "G." When the filament is heated to incandescence and the key "K" closed a current flows from plate to filament through the plate coil "P" and the battery in the plate circuit. While this current is building up in "P" a voltage is induced in coil "G" which impresses either a positive or negative potential on the grid. If the charge on the grid is positive there will be an increase in the plate current (in accordance with the theory of the vacuum tube) which tends to make the grid more positive. This building up of plate current and grid potential goes on until a further increase in grid potential cannot cause any decrease in plate current, since all the electrons emitted by the filument are reaching the plate. The plate current is then said to be at its saturation value.

Momentarily, the plate current is unchanging in amplitude and due to this condition the grid immediately loses its positive charge and drops to zero. The dropping off in voltage on the grid causes a corresponding falling off in plate current which results in a voltage being induced in the grid coil "G" which makes the grid slightly negative. The negative charge on the grid has the opposite effect on the plate current from a positive charge, that is, the plate current is reduced. This action continues until the plate current reaches practically zero value, at which point the grid loses its negative charge and again resumes zero potential. The plate current then returns to its normal value which causes a repetition of the events described, that is, the grid will have alternate positive and negative charges with corr sponding increases and decreases in the

An output coil inductively coupled to the coil "P" will have an alternating current induced in it, dependent in frequency upon the constants mentioned above. This circuit is similar in principle to the circuits previously described in these columns under the headings of "Audio frequency oscillator" and "the separate heterodyne." (All Rights Reserved by United Feature Syndicate, Reproduction Prohibited.)

CAR DRIVER SHIFTS FROM USUAL PLACE

tors fear internal injuries. At the same hour in the same pit, Wilam Syme, a driver, took a notion to ride on the rear of the coal car he was driving instead of on the front end, as is customary. Two minutes later the roof caved in killing the horse and burying the front end of the box under tons of

PROVIDES LIGHTS

The East St. John Community Club
has brought many benefits to that
growing centre and now it has arranged for one more. The club is to
provide lights outside five of the shelters which it erected some time ago
for the convenience of those who wait
for street cars. The club has arranged
with the New Brunswick Power Compeny to have the lights installed and
ready for use in one week's time. The
shelters on which the lights will be
placed are Magee's, Edith avenue, Park
avenue, Mount Pleasant and the shelter near the school. The club will pay
all charges in connection with the installation and maintenance of the lights
They will be a great boon to the members of the community. Wilcox's open every evening till 10 clock from now until Xmas. Charotte street, corner Union. DON'T FORGET

Linton and Sinclair's great clearance tale of fine china and novelties is still going on at 87 Dock street (upstairs)

5666-12-15

Wilcox's open every evening till 10 'clock from now until Xmas. Charotte street, corner Union.

PHONOGRAPHS. Don't miss our phonograph display.

-Phonograph Salon, Ltd., 25 King
quare. 12-16.

Do your Xmas shopping at Wilcox's, corner Charlotte and Union. Open every evening until 10 o'clock from now till Christmas.

Great December Fur Coat Sale Commences Friday morning. See M. R. A., Ltd., advertisement page 5.

Do your Xmas shopping at Wilcox's, corner Charlotte and Union. Open very evening until 10 o'clock from now ill Christmas. OVERCOATS.

TOY LAND. Everything in Toys.—Phone alon, Ltd., 25 King square. Y. W. C. A. CHRISTMAS PARTIES

Y. W. C. A. CHRISTMAS PARTIES

Two of the Y. W. C. A. Christmas parties have already been held. Yesterday afternoon at 4 o'clock the bables and juniors assembled in the gymnasium and played games all afternoon. They then marched downstairs to a room decorated with evergreen and red trimmings and with a big Christmastree in the corner, to which they fastened an envelope containing money to be used to buy presents for poor little girls and from which they took a gift for themselves, a bag of beads. Miss Dorothy Lowe acted as Santa Claus and Miss Leonora Belyea was Mrs. Santa. The programme and refreshments were in charge of Miss G. K. Pepler, physical instructress, and Mrs. A. E. Logie.

On Tuesday evening the Loyalty Club had their party under the leadership of Mrs. Percival Foster, general secretary, Mrs. W. H. Lugsdin, Mrs. J. D. Hunter, Miss Shaw and Miss Julia Pirie, Miss Mary Myers won the guessing contest. Especially convenient meals. It's the kind of

HEINZ Spaghetti

DIAMOND BAR PIN BRETHREN ARE

At Half Price in the Jewelry

Son.

Gent eman's solid gold cuff links for soft or stiff shirts and finished in Roman gold suitable for engraving are half 'their former price of \$6.50. For \$3.26 a set can be obtained in a plush ined velvet case.

Ladies' rings in 10 karat solid gold with marquise settings showing three zenuine pearls at either end of the pointed oval and with a larger pearl set in onyx in the centre are half price, which brings them down to \$4.50.

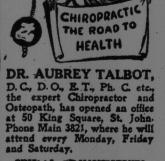
Adjustable baby bracelets in 10 karat solid gold that were \$12.50 now are on ale at \$7.50.

Waterman Pens and Eversharps and Autosharp Pencils are also offered.

Twenty Killed and Fifty Hurt in Wreck

(Ganadian Press Despatch.)

Houston, Texas, Dec. 13—Twenty persons were killed and fifty injured in a Houston East and West Texas train wreck at Humble, Texas, seventeen miles north of here, according to reports telephoned to the Southern Pacific Hospital at 10-30 tonight. Two ambulances and a score of physicians are on their way to the scene.



SPINAL ADJUSTMENTS FOR ALL DISEASES Do not invite permanent invalidism by neglect but come and see if and how you can get well or benefitted.

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

Members of Fraternal Societies Victimized by Bogus Membership Cards.

(Toronto Globe.)

New and clever methods of swin-Temple, Mystic Shriners, in this city.

A series of discoveries would ind



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Humphrey's Tea & Coffee Store 14 King Street

Phone Main 1785

STORM TIES UP

STORM TIES UP

WIRE FACILITIES

OF CAPE BRETON

(Canadian Press Despatch.)

Sydney, Dec. 13.—Almost before they had time to recover fully from the effects of the big snowstorm which swept the usland on November 21, would make a pile higher than the Cape Breton public utilities got an-

Hudson Seal COATS

Deep Skunk Collar and Bell Cuffs \$400, \$450, \$475, \$525

FRENCH SEAL - Skunk Collar and Bell Cuffs-\$200 and \$225.

FRENCH SEAL-Large Cape Collar, reverse strips in collar and around bottom-\$135. RUSSIAN PONY-\$100 to \$150. Trimmings of Aust. Opossum, Raccoon, Wolfe and

C.&E. Everett

LIMITED. 27-29 Charlotte St.

There is One Event in History



That is ever fresh and welcome to the great Christian world-Christmas. Old and young. rich and poor, look for-ward to its coming and you can make this the happiest event by giving Father, Mother, Sister, Brother or Sweetheart a

Handsome Willow Chairs and Rockers at \$10.00 upwards.

A large assortment to choose from. Music cabinets, parlor tables, ladies work basket, etc., at all prices.

Xmas gifts for the children—Toy sets, rockers, high chairs, blackboards, kiddie cars, dolls carriages, etc.

See Our Windows-Open Evenings AMLAND BROS., LIMITED

19 WATERLOO ST.