

# RADIO LORE FOR NOVICE AND EXPERIENCED FAN

## Acmetflex Set Uses D-Coil Tuner and Sodian Detector

Operates on Reflex Principle and Is Designed to Work With Loop Antenna—Great Selectivity—Advantage in Cities

BY LESLIE G. BILES.

There is a certain thrill experienced by all radio fans who build their own sets when they have finished the receiver and find that the outfit works to their entire satisfaction or expectation. The fan is proud of the receiver because he built it, and is thus partially responsible for its successful functioning. And his workmanship or skill really is an important factor in the operation of the receiver, for no matter how efficiently the apparatus or circuit used, unless it is carefully assembled and wired correctly, the full possibilities of the circuit cannot be realized.

In selecting the circuit to be used in your receiver, it is well to remember that there are only a half-dozen basic radio principles. Every radio receiving set is based on one or more of these principles. This article will discuss a circuit employing radio-frequency amplification. Radio-frequency amplification may be attained by means of either tuned or fixed transformer coupling. Until recently, however, use of tuned radio-frequency amplification has been more or less objectionable on account of the necessity for a multiplicity of adjustments and for using some means of stabilizing or preventing oscillations. Several methods are used to control oscillation, some of which are not efficient over the whole broadcast range or accomplish the results with considerable loss of energy.

Many types of tuned R-F receivers, which have no effective means of controlling oscillation, are a constant source of trouble. Contrary to popular belief, many tuned R-F receivers are as powerful "radiating offenders" as "howling" regenerative receivers.

One of the most popular circuits in use at the present time is the reflex circuit. A reflex circuit is essentially one in which one or more vacuum tubes are used for both radio and audio-frequency amplification, the advantage being that this arrangement reduces the amount of apparatus necessary.

The fact that a loop can be used with the reflex circuit is a measure of its sensitivity. Only a really sensitive set can use a loop effectively, and those that can have the advantage of reducing interference to a minimum.

Loop antennas as a rule, have a lower resistance than the outdoor aerial. This makes for increased sensitivity. They aid in making an outfit more selective because they can, of themselves, tune stations in and out.

The Acmetflex is designed especially to work with an indoor, rotating loop antenna. A loop antenna is included in the kit outfit. The range of the set, it has been found by experiment, is increased by the use of a larger stationary loop and a variable condenser. The largest loop can be made by using about one foot of wire wound in the form of a circle of wire around the wall and around the floor, the two ends being connected to a .0005 mfd. variable condenser.

For convenience, this variable condenser should be of the table mounting type. This is an active tuning control. It should be placed adjacent to the input end of the receiver, preferably close to the base of the rotating loop. The small rotating loop is, of course, directly connected to the receiver, but there is absolutely no wire connection between the large loop wound around the wall and the smaller loop of the receiver proper.

This large loop has a great "pickup" and the coupling between it and the loop attached to the set is of such a loose order that sharp tuning may easily be obtained. If this system is used, the tuning adjustments are then made with two condensers.

The use of an outdoor antenna will often increase the range of the Acmetflex but will at the same time increase the interference to a point which makes the receiver a nuisance. The interference is greater than when the loop is used. However, out in the country and at places where interference is more or less negligible, the use of antennas and large stationary loops is strongly recommended.

A most efficient antenna is one erected out of doors, away from trees and buildings. A single wire about 100 feet in length, measured from the extreme end to the set, is sufficient. In other words, the lead-in wire and the horizontal wire, added together, should not exceed 100 feet in all. This wire should be about No. 14 B. & S. gauge, copper, or equivalent, and must be well insulated and kept a reasonable distance away from all buildings, trees and other objects. Place the aerial wire not less than 25 feet above the ground.

Outside the window through which the wire is lead into the house put a lightning arrester. Complete instructions for the installation of protective devices are usually supplied with the arrester. The

lead-in wire should be passed into the house through an insulating bushing. The list of parts is as follows:

- Two audio-frequency transformers, 4½ to 1 ratio.
- One Acme radio-frequency transformer, 733.
- One .0005 mfd. variable condenser, with dial.
- One Acme D-coil unit, complete.
- Five standard-base tube sockets.
- One Pot-Rheo (50-ohm rheostat, 100-ohm potentiometer).
- One fixed mica condenser, .0004 mfd.
- One bypass condenser (1 mfd. electrolytic).
- Eight binding posts.
- One metal front panel.
- One baseboard.
- One 100-ohm potentiometer.
- One Sodian tube adapter.
- One pair storage battery clips.
- One box containing all necessary screws, soldering lugs, washers, nuts, connectors, fixed resistances, etc.
- All necessary parts for loop.
- Thirty feet rubber-covered flexible wire for battery lead.

In addition to the material listed above, which is furnished in the kit set, the following accessories will be required:

- Four vacuum tubes, storage battery type.
- One S-13 Sodian detector tube.
- One 40 to 100-ampere hour 6-volt storage battery.
- Two 45-volt B batteries.
- One 4½-volt C battery.
- One D battery. This is a small 22½-volt B battery. The dimensions of this battery should be such that it will fit the battery box supplied with the kit. The inside measurements of which are 3½ by 2½ inches by 2½ inches high. Batteries to fit this box are readily obtainable.
- One loud speaker.

With the exception of the tubes, batteries and speaker, everything necessary is included in the kit.

The parts are so equipped that soldering is unnecessary, each lead is fastened to a terminal and held securely in place by a binding post.

However, if you are adept with the soldering iron and prefer to make soldering connections this may be done just as in building any other type of receiver. Soldering, if done correctly, with many fasteners seems to be a "lost art." The chief difficulty lies in the failure to use a good, clean, hot iron. That together with obtaining clean surfaces to be soldered, is the secret of soldering.

The most efficient method of soldering is to use a small electric iron. If an electric iron is not available get an iron that is heated by a torch or gas flame, but be sure that it is of sufficient size "to hold the heat." A small iron will not hold the heat long enough after it is removed from the flame.

To not use any soldering flux or paste that will cause corrosion. Acid pastes are often contributing causes to radio failures.

The proper way to solder is to use just enough solder to "sweet" the joint together, that is, just enough solder is used to hold the wires together, this amount in the perfect joint being only a thin film. Have the wires clean together with a pair of long-nosed pliers until the solder coats. Test each joint with a pair of pliers for mechanical strength. Remember the only way to assure a good strong joint is to keep the iron at a temperature that will cause the solder to flow, like mercury.

Keep the soldering iron away from the celluloid covering of the variable condensers if you decide to "solder the job."

1. will be noted in the diagram for this set, which is especially arranged for the use of the S-13 Sodian detector tube, that the primary of the audio transformer, connected in the Sodian input circuit, is not used.

This is due to an important discovery regarding the S-13 tube made during experimental work conducted in the factory laboratories. It was found that the internal impedance of this tube was so high that when the audio transformer was connected in the conventional manner maximum results were not obtained, due to the relatively low impedance of the primary. The secondary of the transformer.

Continued on Page Nine.

**TALKING TAPE**  
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**Steinite** Low Loss Interference Eliminator  
What Radio Users Have Been Looking For  
For those who have had Interference Troubles this new auxiliary tuning device will trap out the undesired stations.

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Try for yourself entirely at risk the wonderful improvement this inexpensive little device will make in the reception of your set. Hold on absolute guarantee of satisfaction or money back and the greatest dollar's worth ever offered.

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DAVEN RADIO CORP.  
"Resistor Specialists"  
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Amazing Satisfaction or Money Back  
Put this interference eliminator on your set and note amazing improvement. No tools needed—installed in moments. Time, 5-10 minutes with set and instructions. Requires no additional tubes or batteries. You must be pleased and delighted or get money back promptly. \$10 postpaid anywhere in U. S. when cash with order. These two big Atchison tanks will testify to my reliability: Exchange National Bank, Atchison, Kansas Bank. Order today—a dollar bill will do.

STEINITE LABORATORIES, 1024 Radio Bldg., ATCHISON, KANSAS

## To-day's Hook-Up



And We Guess Pa Ought to Know

## Vagrant Waves of Interest to Fans

The more sensitive the set is, the harder it will be to tune.

Radio battery connections cause more "static" than any other one thing.

Always give a new hook-up a thorough tryout before attempting another design.

When the rotary plates of a variable condenser are all the way "in," the dial reading should be 100.

An old dry cell can be revived by a solution of salicylic acid for a short time, but it is seldom worth while.

Ammonia or bicarbonate of soda will check acid that has been spilled from a battery from eating into the fibres of the cloth.

All crystal detector sets should have long aerials. The longer the aerial is, within certain limits, the better the results should be on the crystal.

The temperature of the filaments in the vacuum tubes has much to do with many sets, and so the filament rheostats must be carefully adjusted as well as the tubes.

Radio is nothing more than applied electricity.

Always wash the hands after testing, retesting or handling a storage battery.

To properly learn to tune a new set requires two or three weeks or perhaps longer.

Use a porcelain tube when passing the aerial or ground wire through any wall, so that the wire will not "touch anything."

Spohn has no fewer than 100 amateur radio transmitting stations.

By connecting the wires from the grid of the vacuum tube to the stationary

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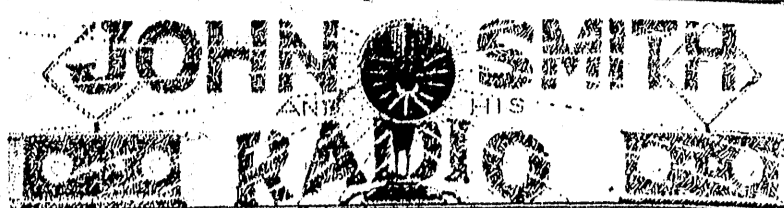
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A request from Smith to come over to talk radio with him the evening following our lunch-table discussion about the tuner showed that he had gained a little lead on the young son whose superior radio knowledge had become such a source of annoyance to father. When I reached the Smith household the big machine was set for the strains of an opera, but down on the floor Smith and Smith Junior were busy with a few wires and knick-knacks which they insisted would soon be a receiving set.

"You know," said Smith, divulging his discoveries, "I get puzzled when I try to figure out those wiring diagrams but when I actually start to make a set and follow the instructions it's really very simple. I find I have an end of a wire here and one there, and very often common sense tells me where to attach them."

"Fine!" I said. "You've got the right idea. About the best way to discover how your big set works is to start building a small one. Pretty soon the two meet and you're ready to talk super-heterodynes as fluently as foreign exchange."

Smith laughed. "You're an optimist," he accused me. "I'd think the world was mine if I even had a slight idea as to how the simplest set works."

He said this while Smith Junior ran over to a friend's house to borrow a fixed condenser, so Smith could talk freely.

"For the simplest set, and one that probably wouldn't work except under the most favorable conditions, you need but an aerial, a ground connection, an inductance of some kind, a crystal detector and a pair of ear-phones. Crystal detectors are of several varieties, some being very cheap and very pesky, while others that are scaled higher in price are quite satisfactory. The wise radioist just goes to the accessory store and buys the best they have. The inductance, as I told you before, can be merely a coil of wire that you can tap at any turn you desire. The telephones are a story in themselves, but for your purpose just picture them as delicate electro-magnets operating upon a thin diaphragm which, in vibrating, gives the sound values that are being registered on the microphone at the broadcasting station.

"The next thing is to connect these simple units so that they will form a circuit, for you know that all electrical instruments operate only when the circuits are complete and closed."

"Start with the aerial, for here is where the radio frequencies are coming in. The aerial gathers the faint energy and conducts it down to the lead-in wire to one end of the inductance device, the tuner."

Full Voltage! Long Life!

Every Verdict in its Favor

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RADIO

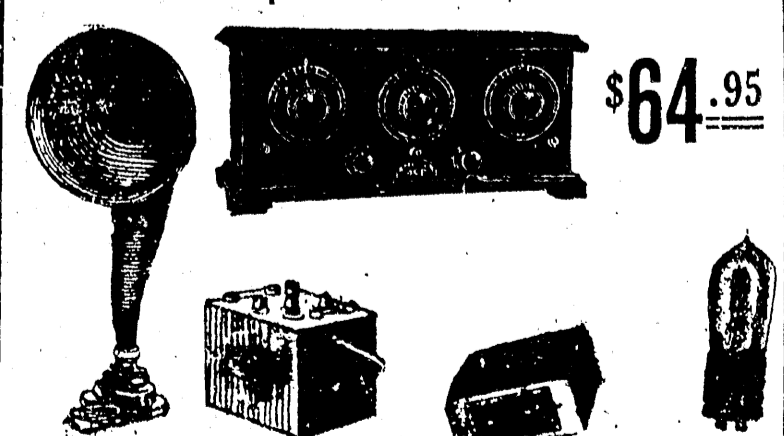
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The high class, 5-Tube Tuned Radio Frequency Set which made such a big hit in New York! THE AMAREX!! We are going to offer this Set to the Providence public at an exceptionally low price for Monday and Tuesday. At this Big Sale, the price will be \$64.95 for the Set and Accessories, as follows:

- 5—Tubes, Type 201A
- 1—Storage Battery, 80-100 Amp.
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- 1—Plug
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For the benefit of those who desire to purchase this Set on time payments, we have made special arrangements as to terms.

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B Batteries, 22½-volt, large.....	99c
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45-Volt Large B Batteries.....	\$1.99
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# Travel, Resorts & Hotels

THE BUSINESS—opportunities that bloom in the classified section are waiting to be plucked.

# RADIO PROGRAMMES

Continued from Page Ten

## KFI, LOS ANGELES, CAL.

(407 METRES)  
TO-DAY.  
1:15 p. m.—Morning services presented by the Los Angeles Church Federation. The speaker will be Judge Robert H. Scott; subject, "The Christian Dynamic in American Citizenship." Mr. A. L. Miller, noted harpist, will play and sing.  
7:00 p. m.—Vesper services, a concert of secular and sacred numbers presented by Harold Isbell.  
9:45 p. m.—KFI Radiolocal period and music appreciation chat.  
10:00 p. m.—Programme presented by Albert Kaufman, from the stars and studio of the Metropolitan Theatre, with orchestra, directing the Metropolitan Theatre Orchestra of 45 pieces.  
11:00 p. m.—Estelle Heart-Dreyfus, contralto, accompanied by Alfred Kastner, harpist, and Grace Andrews, piano, will give a final Lenten song hour of folk songs: "My Boy," "To Rest I Call My Lambskins," and "Swing Low, Sweet Chariot." will be a few of the numbers on this programme.  
1:00 a. m.—An hour of dance music presented by Theron Bennett and his Angelus Orchestra.

## KGO, OAKLAND, CAL.

(801 METRES)  
TO-DAY.  
2:00 p. m.—Service of the First Church of Christ, Scientist, San Francisco.  
6:30 p. m.—Concert, KGO Little Symphony Orchestra, Carl Rhodanham, conductor; Arthur S. Garbutt, musical interpretation writer; guest artists.  
11:00 p. m.—Service of the First Church of Christ, Scientist, San Francisco.

## KGW, PORTLAND, ORE.

(401.5 METRES)  
TO-DAY.  
1:30 p. m.—Service from First Presbyterian Church, Dr. Harold Leonard Bowman, pastor.  
6:00 p. m.—Municipal concert by wire telephony from auditorium.  
9:00 p. m.—Church services provided by the Rev. W. G. Elliot, Jr., pastor Church of our Father, Unitarian.  
10:00 p. m.—Dinner concert by Colburn Concert Orchestra of Hotel Portland; instrumental solos.

## KNX, LOS ANGELES, CAL.

(357 METRES)  
TO-DAY.  
1:00 p. m.—First Presbyterian Church of Hollywood.  
8:00 p. m.—Radio sunset service, conducted by Rev. Charles P. Asked, D. D., L. D., and Rev. Frank Pryor, D. D., Ambassador Hotel.  
9:15 p. m.—International Bible Students Association hour of music.  
10:00 p. m.—First Presbyterian Church of Hollywood.  
11:00 p. m.—Ambassador Concert Orchestra, Josef Rosenfeld, leader.  
12:00 p. m.—Programme of music.

## KYW, CHICAGO, ILL.

(338 METRES)  
TO-DAY.  
12 m.—Central Church service from Orchestra Hall, Chicago; Rev. Dr. P. F. Shannon, pastor. Musical programme under the direction of Daniel Protheroe.  
5:00 p. m.—Classical concert from Westinghouse Station KYW's studio in Heart Square.  
8:00 p. m.—Chicago Sunday Evening Club service from Orchestra Hall, Chicago. Musical programme arranged under the direction of Edgar Nelson. The speaker will be Albert Parker Finch, Carlton College, Northfield, Minn.

## WBZ, SPRINGFIELD, MASS.

(388.5 METRES)  
TO-DAY.  
10:35 a. m.—Church services from the South Congregational Church, Rev. James Gordon Gilkey, pastor; music by Prof. William P. Moore, organist and choir of 24 voices; the quartet is as follows: Mrs. Grace R. Donovan, soprano; Mrs. A. E. Waite, contralto; William L. Spittell, tenor; Albert Edwards, bass.  
3:25 p. m.—Broadcast of People's Symphony Orchestra direct from the St. James Theatre, Boston, through the Hotel Brunswick, Boston.  
7:00 p. m.—Copley-Plaza Orchestra sam, pianist, Hotel Brunswick, Boston.  
8:30 p. m.—Concert by Leonard Doersum, zither player, and Florence Doersum, pianist, Hotel Brunswick, Boston.  
8:30 p. m.—Mrs. Mildred Merritt, contralto, assisted by the Schumann Trio, consisting of piano, violin and cello, Hotel Brunswick, Boston.  
9:00 p. m.—Concert broadcast direct from the Kelsey Organ studio by the Mendelssohn Club of male voices under the direction of E. Rupert Sirooni, organist.

## WCAE, PITTSBURGH, PA.

(401 METRES)  
TO-DAY.  
10:45 a. m.—Services from Rodef Shalom Temple.  
3:00 p. m.—People's Radio Church services.  
4:00 p. m.—Piano recital by Prof. Otto Kalfus.  
6:30 p. m.—Dinner concert transmitted from William Penn Hotel.

## WCCO, MINNEAPOLIS-ST. PAUL

(417 METRES)  
TO-DAY.  
12:00 m.—Trinity Baptist Church, Minneapolis, Rev. David Bryn-Jones, pastor.  
1:30 p. m.—Surprise program.  
8:30 p. m.—First Baptist Church, Minneapolis, Rev. W. B. Riley, pastor.  
10:15 p. m.—Classical concert, MacPhail School of Music Faculty programme.

## WCTS, WORCESTER, MASS.

(268 METRES)  
TO-DAY.  
3:30 p. m.—Christian Science lecture by Hon. William B. Brown, C. S. B., Los Angeles, Cal., and broadcast direct from the Hancock Hotel.  
7:20 p. m.—Musical programme by "Roxy and His Gang," direct from the Capitol Theatre, New York City.  
9:15 p. m.—Organ recital direct from the Chapel at Columbia University, New York City.

## WEAT, NEW YORK CITY

(402 METRES)  
TO-DAY.  
2:00 p. m.—"Sunday Ifymn Sing," under the auspices of the Greater New York Federation of Churches, Rev. William H. Miller, General Secretary, presiding officer.  
2:45 p. m.—Interdenominational services under the auspices of the Greater New York Federation of Churches. Address by Rev. D. Ernest McGarry, D. D., pastor, Wells Memorial Presbyterian Church, Brooklyn, N. Y. Music by Alda Brass Quartet, consisting of Clara Haven, Helen Hatcher, Helen Hatcher and Clara Sauter, together with Arthur Billings Hunt,

baritone and musical director; Edith Hallott Frank, soprano; Mildred Bryars, contralto; Louis Caidon, tenor; William H. Brewster, basso and organist; George Vause, pianist. (a) Organ prelude, "March Romanesque," Gounod; William H. Golden, by Radio Group; (b) hymn, "Responsive reading, 'Gloria Patri,' Great-You Like Mon; (c) hymn, "Quitt Phil Me," Schnecken; by Alda Brass Quartet; (d) hymn, "The Lord Is My Light," Allston, solo, Edith Hallott Frank; (e) address by Rev. Dr. Ernest McGarry, D. D.; (f) hymn, "A Shelter in the Time of Storm," Sankov, by Radio Group; (g) benediction; (h) vesper hymn, "Take Time to be Holy; Stobbins, by Alda Brass Quartet and Radio Group.  
3:45 p. m.—Men's Conference, at the Bedford Branch, Y. M. C. A., Mr. Halsey Hammond, Executive Secretary, presiding. Address by Dr. S. Parkes Cadman; subject, "The Lenten Message." Answers to questions by Dr. S. Parkes Cadman. Special music by Gloria Trumpeters; Howard Wade Kinsey, accompanist; George Betts, chime soloist.  
7:30 p. m.—Musical programme by "Roxy and His Gang," direct from the Capitol Theatre, New York City, by courtesy of the Capitol Theatre management and Mr. S. L. Rothfeld (Roxy). The first part of the programme will be taken from the stage of the theatre and will consist of music by the featured artists and the Capitol Grand Orchestra. The second part of the programme will consist of vocal and instrumental artists direct from the broadcasting studio in the theatre. TO-WED, WED, WJAR, WCAP, WDBH, WWSR, WCAE.  
9:15 p. m.—Organ recital direct from the chapel of Columbia University, New York City to WJAR, WDBH, WJAR, WCAP, WDBH, WWSR and WCAE.

## WEEL, BOSTON, MASS.

(476 METRES)  
TO-DAY.  
3:45 p. m.—Men's Conference Y. M. C. A., Brooklyn, N. Y.  
10:00 p. m.—"Roxy and His Gang," New York Capitol Theatre.  
9:15 p. m.—Organ recital, Columbia University Chapel, New York.  
12:00 m.—Sacred music by the Radio Lighthouse Choir, Miss Catherine Bergen, violinist; Mrs. Margaret Wolfe, pianist.  
12:15 a. m.—Sermon, Pastor W. H. French.  
9:15 p. m.—Sacred music by the Radio Lighthouse Choir, Mr. Prescott Fairchild, violinist; Mrs. Sidney Smith, soprano.  
9:50 p. m.—Sermon.

## WEMO, BERRIEN SPRINGS, MICH.

(287 METRES)  
TO-DAY.  
12:00 m.—Sacred music by the Radio Lighthouse Choir, Miss Catherine Bergen, violinist; Mrs. Margaret Wolfe, pianist.  
12:15 a. m.—Sermon, Pastor W. H. French.  
9:15 p. m.—Sacred music by the Radio Lighthouse Choir, Mr. Prescott Fairchild, violinist; Mrs. Sidney Smith, soprano.  
9:50 p. m.—Sermon.

## WFBL, SYRACUSE, N. Y.

(232 METRES)  
TO-DAY.  
5:00 p. m.—First Presbyterian Church, vespers.  
9:15 p. m.—Onondago String Sextet.

## WGBS, NEW YORK CITY.

(316 METRES)  
TO-DAY.  
5:30 p. m.—Musical programme direct from Piccadilly Theatre.  
9:30 p. m.—Sunday evening concert from Della Robbia room, Vanderbilt Hotel.

## WGR, BUFFALO.

(310 METRES)  
TO-DAY.  
3:00 p. m.—Vesper service by Rev. Clinton Churchill of the Church of the Evangelical Association.  
4:00 p. m.—Organ recital, ball room, Hotel Statler, John F. Gauderman, Jr., organist.  
7:15 p. m.—Pre-service organ recital, direct from Central Presbyterian Church, Buffalo, R. J. MacAlpine, D. D., minister; William Wall Whitlitt, organist; playing "Festal Prelude," Gaston M. Dethier; "A Song of India," Rimsky Korsakov; "Andantino," Lemaire.

## WHAS, LOUISVILLE, KY.

(300.8 METRES)  
TO-DAY.  
10:57 a. m.—Organ music.  
11:00 a. m.—Church service under the auspices of the Temple Adath Israel, the Rev. Dr. Joseph Rasmussen, pastor, Karl Schmitt, organist, and choir director; Charles Leizer, violinist; Mrs. Lewis W. Cole, soprano; Mrs. William J. Horn, tenor; Douglas Webb, baritone.  
5:30 p. m.—Church evening service at Christ Church Cathedral. The Very Rev. Richard L. McCready, dean; the Rev. Frank W. Hardy, senior canon; Ernest Arthur Simon, organist and choir master; Men and boys' choir of 60 voices.

## WHN, NEW YORK CITY

(381 METRES)  
TO-DAY.  
1:00 p. m.—Organ recital from Loew's Lexington Theatre.  
3:00 p. m.—Queens County Christian Endeavor programme represented by the Rev. Joseph E. Carlin of the Leverich Memorial Church of Corona, L. I.  
4:00 p. m.—Musical recital by Edwin Johnson of Carnegie Hall.  
4:30 p. m.—Concert under auspices of Music Lovers' Association.  
5:00 p. m.—Roseland Dance Orchestra.

## TABLE KNIVES

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Will Sell Monday:

PORK CHOPS . . . . . 20c to 35c lb  
STEWING VEAL . . . . . 10c lb  
HAMBURG STEAK . . . . . 12c lb  
GREEN MOUNTAIN POTATOES . . 19c peck  
CABBAGE, Solid Heads . . . . . 2c lb  
GRAPEFRUIT, Special Lot, 5 for . . 25c  
14c "Sun-Maid" RAISINS, Seedless  
or Seeded, 2 pkgs . . . . . 25c  
28c COMBINATION SALAD . . . . . 25c lb  
14c "Robin" PEAS, 2 cans . . . . . 25c  
19c "Buster" SALMON, tall can . . . 15c

## A BIG BARGAIN

We have several hundred cases of LUNCH TONGUES, "Larkspur" brand, packed by one of the highest grade packers. We are going to sell them at a low price this week, or while they last:

No. 1/2 . . . . . 2 cans 25c—\$1.45 doz  
No. 1 . . . . . 2 cans 45c—\$2.60 doz

Our Regular Prices 15c and 25c  
These tongues are equal in quality to brands selling at 25c for 1/2s and 40c for No. 1 size. It will pay you to lay in an emergency stock.

## SWEET CREAM BUTTER

We are very anxious to increase the distribution of our wonderful Sweet Cream Butter. The price is 52c out from the tub. To induce more of our customers to try it, we are going to sell tomorrow and Tuesday at 48c, 2 lbs for 95c. Also we are going to sell our fancy Centralized Creamery tomorrow at 43c, 2 lbs 85c.

## OTHER SPECIALS

38c PORK BLADE STEAK . . . . . 30c lb  
38c to 48c TOP ROUND STEAK 28c to 45c lb  
27c FRANKFURTS, Best Quality . . . 25c lb  
18c LAMB LIVERS . . . . . 15c lb  
POTATOES, Green Mountains, Best Quality . . . . . 20c pk, 75c bu  
NATIVE LETTUCE, 2 heads . . . . . 15c  
CALIFORNIA ICEBERG LETTUCE, low as . . . . . 10c head  
60c WALNUT MEATS, Pieces . . . . . 49c lb  
70c WALNUT MEATS, Halves . . . . . 58c lb  
15c FIG BARS, new lot, 2 lbs . . . . . 25c  
FLORIDA ORANGES, Special, large size . . . . . 55c doz  
\$1.65 "E. A. Co." FLOUR . . . . . \$1.45  
25c SQUASH PIES . . . . . 20c each  
25c RAISIN PIES . . . . . 18c each  
60c SUMATRA COFFEE . . . . . 57c lb  
38c PERFECTION BLEND TEA . . . . . 34c lb  
6c ROLLED OATS . . . . . 4c lb  
25c ITALIAN STRINGLESS BEANS, "Optimus," Imported . . . . . 19c can

## WLIT, PHILADELPHIA, PA.

(802 METRES)  
TO-DAY.  
2:00 p. m.—Special concert by the Arpadia Concert Orchestra, Prof. Fori Sarkoz, director.  
8:00 p. m.—Benjamin Franklin Hotel Concert Orchestra, W. Irving Oppenheim, director.

## WLS, CHICAGO, ILL.

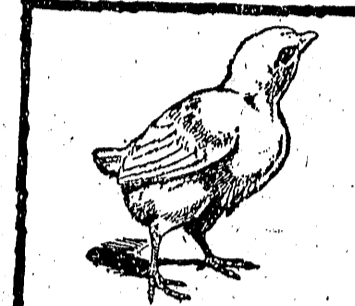
(845 METRES)  
TO-DAY.  
8:30 p. m.—Ralph Emerson at Barton organ; WLS Little Brown Church programme.

## WLW, CINCINNATI, O.

(422.5 METRES)  
TO-DAY.  
10:30 a. m.—School conducted by the editorial staff of Sunday School Publications of the Methodist Book Concern.  
12:00 a. m.—Services from the Church of the Covenant; Dr. Frank Stevenson, minister; Organist—J. Warren Ritchey; Soprano—Charlotte Sandman Angert; Contralto—Louise Koster; Tenor—Erwin Meyer; Bass—Edwin Weidinger.  
8:30 p. m.—Service from the First Presbyterian Church of Walnut Hills; Dr. Frederick McMillan, minister.  
9:30 p. m.—Concert by the Western and Southern Orchestra; William Kopp, director. (Under the auspices of the Western Association of the Western and Southern Life Insurance Company.) Soloist—George Muhlenberg, tenor.

## WOAW, OMAHA, NEB.

(526 METRES)  
TO-DAY.  
10:00 a. m.—Radio chapel service, conducted by Rev. R. R. Brown and his associates of the Omaha Gospel Tabernacle, 2000 Douglas street.  
2:30 p. m.—Musical programme transmitted from WOAW's remote studio, Shenandoah, Ia.  
3:15 p. m.—Madness programme, Florence Presbyterian Church, Rev. A. B. Vanderlippe, pastor. Mrs. F. H. Allis, choir director; Mrs. Hazel B. Reynolds, piano solo; "Kamuel Ostrom," Rubinstein; Hazel B. Reynolds; hymn, "When Love Shines In," Kripplund; soprano solo, "Trusting," Lieurance; Myfanwy Jones; whistling solo, selected, Mrs. V. Harrington Gross; anthem incidental solo, "Our Song Shall Rise," Wilson, Mrs. J. H. Price; soprano solo, "In the Garden," Miles, Mrs. Orval Green; violin solo, selected, F. E. Della; baritone solo, "The Pilgrims of the Night," Parker, F. H. Allis; sermon, "The World We Conquer," Dr. A. R. Vanderlippe; vocal duet, "Sweetest as the Years Go By," Mor-



## Help Baby Chicks Live and Thrive

Feed baby chicks the kind of food that years of experiment has proved exactly right. It will pay you to buy a few dollars worth of Pratt's Baby Chick Food. Start giving them Pratt's and see how few chicks die! Old hands with poultry feed only Pratt's Buttermilk Baby Chick Food. Feed these first critical weeks. And Pratt's Growing Mash when they feathered—to keep up the good work! Dealers sell Pratt's on money-back guarantee.

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**Pratt's**  
Buttermilk  
Baby Chick Food

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All Feed and Poultry  
Supply Dealers

## RADIO TYPEWRITER

Italian Claims to Have Perfected Remarkable Machine.

The world was startled a few days ago when a young Italian inventor, Signor Manfredo Compare, announced that he had perfected a secret radio typewriter which would be able to send messages to any one of 100,000,000 places in the world in a manner that would be entirely impossible to tap in any other place.

This remarkable invention is to all outward appearances an ordinary typewriter with a sort of cash register attachment, known as the "combiner."

Whenever one of the keys on the typewriter is struck it sends a current through the combinor which selects a Morse code letter in accordance with the combination used, and which operates only one re-

ceiving instrument. The receiving instrument is apparently another ordinary typewriter, and it writes along as the combined alphabet comes in, in clear English or French or whatever language was originally used.

Transmission is quite as instantaneous as a sound in a radio receiver, it is claimed, and a business man could have a letter typed out to his correspondent at the other end of the earth, while the latter could read the letter as fast as written.

The Use of Paraffin.

When melting paraffin to waterproof cardboard tubes, keep fire away from the solution at all times. Do not let the molten paraffin boil over, as it will ignite instantly. There is no danger, however, if ordinary precautions and common sense are used.

## PURE FOOD SPECIALS FOR MONDAY

Fresh Cut Pork Chops . . . . . 18c-35c lb  
Fresh Ground Hamburg Steak . . 2 lbs 25c  
Fresh Cut Stewing Lamb . . . . . 8c-10c lb  
Fresh Cut Stewing Beef . . . . . 15c lb

Best Rhode Island Eggs . . . . . 39c doz

Boiled Ham (Sliced—Reg. 75c) . . . 70c lb

Butter . . . . . 18c each

Live Chicken . . . . . 38c lb

Fig Bars . . . . . 2 lbs 25c

Fresh Block Island Flatfish . . . . . 7c lb

Peppermints . . . . . 25c lb

Fresh Haddock Spawn . . . . . 20c lb

Best Green Mountain Maine Potatoes - 20c pk

Sweet Juicy Florida Oranges - 45c doz

Fresh Celery . . . . . 18c bch

Best New Cabbage . . . . . 5c lb

Fancy Eating Apples . . . . . 40c doz

Strawberries . . . . . 30c can

2 Cans 50c—Reg. 35c each

Miner's Malted Milk . . . . . 53c jar

Cocoa . . . . . 40c

Manget Orange Pekoe Tea, 1/2-lb tin . . . . . 39c

Reg. 45c

Pratt's

Buttermilk Baby Chick Food

Guaranteed and for sale by All Feed and Poultry Supply Dealers

Weybosset Market

Weybosset, Hay, Pine and Peck Streets

## 26 SPECIALS

## FOR MONDAY

## AT THE BILTMORE MARKET

## Domino Granulated Sugar, 10 lbs. for 59c

(In Sanitary Cloth Bags)

Sold in the store between the hours of 9 to 12 in the morning and 2 to 5 in the afternoon. Delivered with other goods all day.

Confectionery, Brown and Powdered Sugar . . . . . 9c pkg  
Genuine Spring Lamb Chops . . . . . 35c to 69c lb  
Sliced Pork Liver . . . . . 8c lb  
Fancy Sliced Bacon . . . . . 33c lb  
Oxtails (large size) . . . . . 8c lb  
Fresh Cut Veal for Stewing . . . . . 2 lbs for 25c  
Fancy Creamery Butter . . . . . 2 lbs for 93c  
Best Pure Lard . . . . . 20c lb  
Fresh Shore Haddock . . . . . 6c lb  
Fresh Cod, Sliced . . . . . 12c-14c lb  
Fancy Lemons . . . . . 25c doz  
Extra Large Grapefruit . . . . . 2 for 23c  
Fancy New Cabbage . . . . . 5c lb  
Green Mountain Potatoes 15 lbs to a peck . . . . . 21c peck  
Prince Superfine Macaroni . . . . . 3 pkgs 25c  
6 pkgs 48c

Van Camp's Catsup, large bottles . . . . . 2 bottles 45c  
John Alden Flour reg. \$1.80 . . . . . \$1.50 bag  
Old Fashioned Canned Apple Sauce . . . . . 2 cans 25c  
Seal Heart Canned Grapefruit . . . . . 2 cans 35c  
Rising Sun Lobster . . . . . 2 cans 61c  
John Alden Coffee reg. 88c value . . . . . 2 lbs 75c  
Ginger Snaps . . . . . 3 lbs 25c  
Clean Easy Soap . . . . . 10 bars 37c  
Honolua Sliced Pineapple, 2 1/2's . . . . . 2 cans 55c  
Oatmeal . . . . . 5 lbs 21c

Monday and Tuesday will be the last days of our 5-day sale. Come in before the sale is over and take advantage of the bargain prices. Besides the items listed below you will find a large assortment of groceries priced much lower than usual.

**BILTMORE MARKET**  
SAVE MORE  
AT THE BILTMORE  
WASHINGTON AND MATHEYSON STS.  
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