RADIO LORE FOR NOVICE AND EXPERIENCED FAN

PROGRAMS RADIO

grams at 11 a. m. with the service from his orchestra will be on the air Tues-Mathewson Street Methodist Church.
At 2 p. m. will be heard the Dudley radio carolers, at 3:15 p. m. a concert by the Providence Symphony Society, at 6:30 p. m. an organ recital and at 7 p. m. the Asia Serenaders. At 8 p. m. will be broadcast a concert by Square and Compass Band. The Columbia Chain programs will be on the air at 9 p. m., 9:30 p. m., 10 p. m. and 10:15 the customary program will be heard. p. m. Tomorrow at 6 p. m. will be WFCI starts broadcasting at 10:45 s. through the courtesy of the American Congregational Church. The Family Radio Relay League, Inc. Norma Senay, Hour will be broadcast from the station soprano, and Alice Roy, planist, will be on the air at 6.15 p. m. on Tuesday. Wednesday and Thursday the usual programs will be observed. Uncle Red will be on the air Friday at 6 p. m. A program arranged by David Blair Mc-

chestra. The station will broadcast baseball scores at 7:32 p. m. tomorrow. Tuesday at 8 p. m. the Providence Safety Council will give a safety talk. Irving Spector, violinist, will be on the air at 1:35 p. m. on Wednesday. At 9:05 p. m. on Thursday will be broadcast a musical program by Vaughn A. Kazarian, baritone, and May Hughes, soprano. Friday night at 7:45 p. m. Wassili Leps, director of the Providence College of Music, will talk on the subject "Understanding Music." He will discuss some phase of the subject at the same howr each Friday night thereafter. Saturday at 7:50 p. m. a talk will be given by the Rhode Island Humane Educational Society.

WLSI begins to broadcast for the week at '10:30 a, m. with the service from the First Church of Christ, Scientist. At 5:30 p. m. the International Bible students program will be on the air. At 8 p. m. will be heard the service from Church of the Seventh Day Adventist Tomorrow the usual pro-Tomorrow the usual pro-

WEAN will commence its week of pro- | gram will be heard. Al Billinkoff and Dave will be on the air at 7 p. m., Thursday. At 8 p. m. on Friday the Steinert's duo-art program will be broadcast from the station. Saturday Steinert's duo-art

code instructions by radio m. with the service from Central Falls at 6 p. m. tomorrow. Tuesday the usual program will be heard. Uncle Dave's radio pals will be on the air at 7 p. m. on Wednesday. Thursday the usual program will be broadcast. The Pawtucket Senior High School "Fretted In-Closkey will be heard on Saturday at strument Club" will be broadcast at 8 8:01 p. m. p. m. on Friday. Saturday the Virginiah WJAR starts broadcasting at 3 p. m. Troubadours will be heard at 2 p. m.

WJAR starts broadcasting at 3 p. m. with the Young People's radio conference. At 4 p. m. will be heard the Men's Conference direct from the Bedford Branch Y. M. C. A. The Capitol Theatre program will be on the air at 7:20 p. m.; a talk by David Lawrence entitled "Our Government" at 9 p. m., and at 9:15 the Robert W. Powers's organization of the station will broadcast. The Moon-programs will be broadcast. The Moon-programs will be programs at 1:30 p. m. with a musical program. At 2:15 p. m. Jacob Conn will talk on current events. Monday and Tuesday at 8:15 p. m. the Wallana Hawalians will be on the air. air. Thursday and Friday the usual programs will be broadcast. The Moonlight rambles in dance program will be broadcast at 8 p. m. on Saturday.

WEAN-THE SHEPARD STORES-275.

Today.

11:00 a. m.—Service from Mathewson Street Methodist Episcopal Church.

2:00 p. m.—Dudley radio carolers.

3:15 p. m.—Concert by the Providence Symphony Society.

6:30 p. m.—Organ recital.

7:00 p. m.—Asia S. inders.

8:00 p. m.—Concert Square and Compass Band.

9:00 p. m.—"Operetta in Miniature," Columbia Broadcasting System. The first performance of a new series of programs.

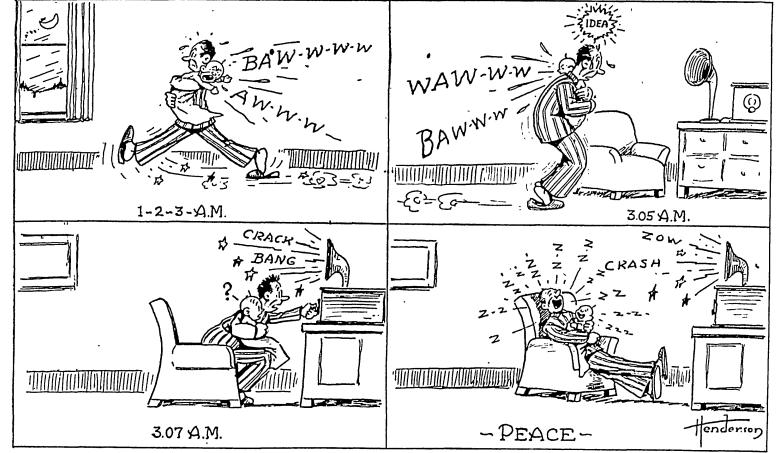
9:30 p. m.—La Palina hour, Columbia Chain program. La Palina and her troupe.

Chain program. La Palina and her troupe.

10.00 p m.—American Singers, Columbia Chain program "Softly in the Gloaming," Abt: "On the Sea," Buck: "Sweet Miss Mary," Neidlanger: "Drink to Me Only with Thine Eyes," arrangement by Button: "Tell Me Not of a Lovely Lass," Forsyth.

10:15 p. m.—United Military Band, Columbia Chain program "Light Cavalry," (Overture). Von Suppe. "El Dorado" (march), Herbert: "Aubade," Masse-

SHORT CIRCUITS



net; "Salut a Pesth" (Hungarlan march), Kowalski, "Artists Life" (waltz), Strauss, "On Parade" (march), Sousa, "Salute D'Amour," Elgar. "Heavy Artillery" (march), Bergenholtz.

Monday,
9:45 a. m.—Women's Institute conducted
by June Abbott.
10:30 a. m.—'Good Groceries," by Sally
Sawyer.
11:00 a. m.—Symphony orchestra.
11:30 a. m.—Musical program.

11.55 a. m.—Time signals
12.00 m.—Concert program.
12.30 p m.—Weather report.
12:45 p m.—Good gardening.
4:00 p. m.—Musical program.
4:30 p. m.—Weather report.

12:45 p m.—Good gardening.
4:00 p. m.—Good gardening.
4:00 p. m.—Musical program.
4:30 p. m.—Weather report.
6:00 p. m.—Code instructions by radio, through the couriesy of the American Radio Relay League, Inc.
6:30 p m.—Dinner dance.
7:30 p. m.—Temperature report.
7:31 p. m.—Temperature report.
7:31 p. m.—Mrs. George C. Harrison, "What is a Good Motion Picture to See and Why."
8:00 p. m.—Correct time.
8:00 p. m.—Honoillu quintet.
8:30 p. m.—Mule Battery program.
9:00 p. m.—Columbia broadcasting system program.

9 30 p. m.—Columbia broadcasting system program
10 00 p. m.—Columbia broadcasting system program 10.30 p m.—Columbia broadcasting system program.

program.

Tuesday

9.30 a. m—Women's Institute, conducted by June Abbott

9 45 a. m.—'Swiss Maid''

10 00 a. m—Home service radio chat.

10 30 a. m.—Session. Rhode Island State Federation of Women's Clubs.

11 30 a. m.—Musical program.

12 30 m.—Musical program.

12 30 p. m.—Weather report.

12 45 p. m.—Gone of gardening.

4 00 p. m.—Organ recital.

4 30 p. m.—Weather report.

6 00 p. m.—Army recruiting realities revealed.

6 15 p. m.—Norma Senay, soprano; Alice

vealed.

p. m —Norma Senay, e.g.

Rtoy, accompanist

p m —Direct dance program.

p. m.—Temperature report

p. m.—Talk by a representative of the

Rhode Island State Department of

7:30 p. m.—Temperature report.
8:00 p. m.—Correct time.
8:01 p. m.—Nicholson Thackray program.
8:30 p m.—Columbia broadcasting system

program.
p. m.—Columbia broadcasting system p. m.—Columbia brodcasting system program p. m.—Columbia broadcasting system program.

program. THURSDAY.

9:45 a. m.—Women's Institute, conducted by June Abbott.

10:00 a. m.—Home service radio chat.

10:00 a. m.—Household h'inters.

11:00 a. m.—Symphony Orchestra

11:30 p. m.—Musical program.

11:55 a. m.—Time signals.

12:00 m.—Goneert program.

12:30 p. m.—Weather report.

Continued on Page Thirteen

Continued on Page Thirteen.

RECEIVER'S DIALS DESERVE THOUGHT

Devices Really Comprise "Face" of Radio Apparatus

Essential Features Include Legibility, Lighting and Ease of Control.-To Attach Verniers to Older Sets Simple Matter and Well Worth Trouble

The radio dial is really the "face" of the radio receiving set. We look at the dials more than at anything else, unless it be the loud speaker. With the dials we can leap the distances between us and far-off cities, and change from city to city at our wish.

Dials ought to be "right." There are good many important points that could be suggested and herewith are pointed out some of them. The first two essentials would seem to be read-

only, it is of fittle importance whether the dial to the "hair's for a faint station is quickly found when the station is once heard, even speaker. p in.—Session. Rhode Island State casters, an accurate adjustment is of very faintly, by moving the dial rather paramount importance. The need for rapidly back and forth over only a careful control for faint stations practically means a vernier dial of some is narrowed down until the right spot tically means a vernier dial of some is narrowed down until the right spot sort. The late model sets are being is found. This is better than attemptsort. The late model sets are being is found. This is better than attempts built with a drum control inside, and ing to move the dial with microscopic the rim of the drum shows through an aberture in the panel. The drum is in noting whether the motion causes and in this way a fine adjustment is

> Where the set is of older style and has ordinary dials without the vernier feature, it is a simple matter to replace the old-fashioned dials with modern vernier dials. The ratio of control in most purposes. offered in some dials and this is a good

Care should be taken in buying a vernier dial to select one with a very good sale record and reputation or one made by a well-known manufacturer. Many have bought vernier dials at too low a price or of unknown construc-

Weekly Radio Test

1. How does the annual cost of operating a radio broadcast-ing station compare with the original investment?

2. Can a dry battery be wired to and operated in series with a "B" eliminator? 3. Is there such a thing as

an alternating current tube 4. About what percentage of

the broadcast hours are paid for by the broadcasters? 5. Are trickle chargers for "A" batteries and "B" climinators made as a combination

(Answers to these questions will be found elsewhere in the Radio section.) (Copyright, 1928.)

ion and have had the working parts wear cut through excess friction.

An important point that is very often overlooked is the "parallax" effect. Noice whether the indicator line or mark so far away from the dial markings that moving your head will change the reading. The dials troubled least by this difficulty are usually those where

Rhode Island State Department Agriculture.

Agriculture.

p. m.—Correct time.
p. m.—Op'ry house tonight.
p. m.—Op'ry house tonight.
p. m.—Harold Sheffers and h s orchestra.

Department of the dial's "scale" should "hair-line appears.

The control feature is uppermost.

The control feature is uppermost. tra.

10 15 p. m.—Providence Bilimore Orchestra.

10 15 p. m.—Providence Bilimore Orchestra.

WEDNESDAY.

9 45 a. m.—Women's Institute, conducted by June Abbott.

10 15 p. m.—Providence Bilimore Orchestra.

The control feature is uppermost, list useless to swing one dial back perhaps. Where we get local stations only, it is of little importance whether only, it is of little importance whether the others still. The accurate spot for a faint station is quickly found

Some loud-speakers are quite susceptible to dampness, the vibrating sur-face absorbing moisture and becoming soggy. This is especially noticeable in vernier dials. The ratio of control in vernier dials varies from 3 to 1 all the case of the balsa wood type, because of the way to 25 to 1 or more. A ratio of the way to 25 to 1 is really shiftient for good stunt to dry out the loud-speaker is really sufficient for good stunt to dry out the loud-speaker

A variable ratio is before an electric heater or coal fire.

> Marshall & Co. Authorized Radioia Service Where They KNOW The Neutrodyne R-A-D-I-O Exclusively 94 DORRANCE STREET Opp. Narragansett Hotel



for Clarity, Tone, Longer Life A type for every radio need. Your dealer will help you select the types needed for your set.

C. E. MFG, CO., INC., Providence, R. I., U S. A.



Chain Broadcasting Requires Closest Attention to Detail

Telephone Circuits Employed Between Stations Tested Regularly and Watched Constantly.—Small Army of Experts Sees That Programs "Click" Everywhere

gram. Linemen, of course, are always located at strategic points, ready to make quick repairs in case of emer-

In cases where a national hook-up

is being handled from points widely separated, as for example in January

of this year when a program was sent from five widely separated points, the

entertainment being furnished from California, Chicago, New York, Detroit

and New Orleans, accurate co-ordina-tion between telephone men at these

points becomes an absolute necessity,

The success of such a hook-up depends upon the clock-work precision and succession of operation which only training and knowledge will insure. It is

no small task for these men, located at

strategic points from the Atlantic to the Pacific to keep all these highways clear and each ready to function when

the proper moment arrives.
On each occasion a speaker may use

one particular circuit for a few min-utes and then the program is diverted

to another speaker on another circuit,

called upon to resume, but if anythin

should happen to the telephone circuit

during these few minutes, the program would then be disrupted and perhaps entirely ruined. It is one of the du-

ties of the men in charge of these cir-

cuits to see that at all times they are

ready for service, to watch out that nothing has happened to interfere with

the transmission of the program or that

the line has not suddenly gone dead

and to test these lines continually

Hundreds of telephone men, tele

graph operators and others man the

switchboards at various points to

change the circuits as one speaker fol-

The large nation-wide hook-ups in-

volve the use of many thousands of miles of telephone wire. The Tunney-

Dempsey prize fight of last September

was broadcast by 69 radio stations over

a network of 14,200 miles of telephon

lines, reaching all parts of the country.
There are now four regular networks of

proadcasting stations operating ever

day in the United States and using a total of over 14,000 miles of telephone

circuits. All of which involves an army of men to supervise the wires of wire-less, aside from the wireless personnel

in the various broadcasting stations.
(Copyright, 1928.)

Radio Raiment.

Russel Pratt, Ransom Sherman and oe Rudolph, fun-makers of station

WMAQ, Chicago, now wear special suits of exotic blue when they broadcast

lows another.

while they are being held for service.

By AUSTIN C. LESCARBOURA
Chain broadcasting is made possible by means of the long-distance telephone lines in this country. The telephone lines in this country. The telephone lines in this country. phone circuits used for transmitting sary adjustment made. Linemen in-program to radio broadcasting stations, this way make sure that there is no inlowever, differ from ordinary local and cipient trouble which is likely to inlong-distance lines, in that the trans- terfere with the sending of the promission takes place only in one direc-tion, namely, from the microphone to the different radio stations. Requirements for the transmission of program material are much more severe than for the transmission of ordinary speech such as is required in the local or long-distance call. In the case of program transmission, circuits capable of ransmitting satisfactorily a wide band of frequencies, that is, a wide pitch ange, such as from 100 to over cycles per second, are usually considered necessary. In addition, the circuit must be capable of handling a wide range of volume so that when the volume is low, the program will not be marred by the presence of extraneous noise. Of course, all special circuits used for radio broadcasting must also function harmoniously with the other trouts of the telephone plant. Most of the broadcasting chains now

perating throughout the country were constructed to meet these require-ments. When a regular telephone circuit is to be used for program transmission, it is necessary to remove part of the equipment and apparatus normally connected with the circuit to install special equipment instead. For example, the equipment removed inludes that normally required to permit the simultaneous operation of telegraph and telephone service on the ame wires. If this is not done, the rame wires. If this is not done, the very low pitches such as 100 cycles per cond would not be transmitted satsfactorily.

Special electrical arrangements which re called "equalizers" are used to make he lengths of cable equally efficient throughout the frequency band transmitted. Thus substantially uniform transmission over the yide range of low, medium and high pitches is se-On long circuits, vacuum tube amplifiers are necessary at intervals, and serve the same purpose as the re-peaters that are used in ordinary long-

distance telephone connections.
All circuits thus employed must be tested regularly and observed continuously. Special measuring equipment is provided for such testing and observa-tion, and during operation high-quality loud-speakers are connected so that any fault in the transmission can be instantly detected. Thus at the control in New York and Chicago, for example, and at other testing points when many stations are linked to gether in chain broadcasting, the loudspeakers are employed to keep constant check on the quality of the transmis There is one of these for each sion. proadcasting chain whose program is being transmitted.

All toll circuits throughout the telehone system are tested thoroughly and arefully at frequent intervals, as part

their daily feature, a musical "pot-pourri." The suits were donated by a fan family, living in Kenosha, Wis. AUTO NUMBER FRAMES Handsomely Designed

The Walter W. Massie Radio Sales and Service Bureau Telephone Broad 0507 MASSIE SERVICE "THE BIG 1/2"

We sell, service and repair all standard makes of radio

Made of heavy bronze, nickel plated. Shows entire number plate and compiles with State motor laws.



J. M. BAKER PATTERN CO., 114 WEST EXCHANGE STREET, At end of Mathewson St., Prov., R. I

DAY-FAN

A. C. RADIO RECEIVER

Complete with Tubes and Speaker, regularly \$166.50

SPECIAL (Complete)

to the extent of our stock

This radio receiver is complete with tubes, ready to plug into your lighting socket. Built-in

Step into our store and listen to its beautiful tone. You will find that the tone quality is distinctly Day-Fan, which means-

The voice of the speaker—the sound of the musical instrument "Like opening the door of the studio while the broadcasting is

going on."



ALL ELECTRIC NO BATTERIES Never Runs Down



teen-year-old Grebe policy not to be hurried into premature production because sets of a similar type had been put upon the market, has now placed at your pleasure an Alternating Current radio of superb tonal quality—incomparable range and

selectivity—and unbe-

lievable simplicity of

Price \$254.00 — Complete with Tubes

Ask for Demonstration in Your Own Home Without Obligation

LATEST SPEAKERS AND PARTS ALWAYS IN STOCK

B. & H. Supply Co., Inc.



<u>^</u>

\$25 Allowance

Model 37 . . . 6 tube, ONE Dial A.C. lio completely shielded by satin finished cabinet. Works from house cur-rent. Very powerful. Less tubes, \$88

on your present Radio or condition towards the famous All Electric-Model 37

ATWATER **KENT** Operates direct from light

BOCKET
HERE IS WHAT YOU GET:
Atwater Kent A. C. 37 \$88,00 7 A. C. Tubes\$26.50 Bosch Cone Speaker (Latest Model) \$25.00 Allowance for Your Old Set . . . \$25.00

PRICE. \$114.50 \$10 Down

52 Weeks to Pay the Balance. One Year Guarantee
One Year Free Service
One Year Free Service
One Year TUBE Guarantee
This is the first time that
any radio storo has over
given an unconditional
guarantee of ONE YEAR on
the A. C. Tubes.

UNITED MUSIC CO.

New England's Largest Radio Retailer 116 Methewson Street—Phones, Gaspee 5550-1-2-3

Today's Programs in Brief

Music, WEAF, 492, WTIC, 535; WGY, 380; WRC, 469; WTAG,

517. Organ, WOO, 349.
6:08—Baseball scores, KDKA, 316.
6:15—Orchestra, KDKA, 316.
Forum, WRNY, 326.
6:30—Travelogue, WJZ, 454: KDKA, 316: WBZ, 333; WBAL, 286.
WRO, 469.
Forum, WHAM, 380.
6:55—Baseball scores, WEAF, 492.
7:00—Peature, WICC, 265.
Ensemble, WHN, 296.
Muslc, WHAM, 280; WEAF, 492: WGY, 380.
Church KDKA, 316: WKBW, 217.

217. Orchestra, WBAL, 286.

Orthestra, WBAD, 200.
Feature, WBZ, 333.
Organ, WJZ, 454.
Music, WBZ, 333: WTAG, 517.
Capitol Theatre program,
WEAF, 492: WGY, 380: WRC,
469: WTIC, 535: WTAG, 517.
News, WEEI, 448.
Feature, WMAM, 200.

469: WTIC, 535: WTAG, 517.

News, WEEI, 448.

7:25—Feature, WHAM, 280.
7:30—Church, WGR, 303; WQAO, 395: WOO, 349.

Music, WJZ, 454; WEEI, 448.
7:40—News, WBZ, 333.
7:45—Music, WJZ, 504; WOR, 422; WBZ, 333.
8:00—Music, WiAP, 236: WBAL, 286.
Church, WLWL, 370.
8:15—Music, KDKA, 316; WBZ, 333; WJZ, 454.
8:30—Reading, WHAP, 236.
8:45—Music, WOR, 422.
9:00—Talk, WGY, 380; WGR, 303; WRC, 469; WEAF, 402; WTAG, 517; WTIC, 535
Feature, WOR, 422.
Music, WHAM, 280.
News, WPG, 273; WEEI, 448.
9:10—Music, WPG, 273; WEEI, 448.
9:110—Music, WPG, 273; WEEI, 448.
9:15—Atwater Kent hour, WEAF, 492; WGR, 303; WGR, 469; WGR, 303; WGR, 469; WGR, 303; WGR, 469.

448. Music, WGBS, \$49: WBZ, 333: KDKA, 316: WJZ, 454: WTAG, 517: WDRC, 283
9:30—Music, KDKA, 316: WOR, 422: WHAM, 280. , 16: WHAM, 280. , 280. WJZ, 454
Reading, WHAP, 236.
10:00—News, WTAG, 517. Music, WOR, 422: KDKA, 316: WPG, 273: WHAM, 280: WJZ, 454.

nssisted by Whitam
tenor.

7:30 p. m.—Weather report.

7:32 p. m.—Baseball scores.

7:35 p. m.—Harold Strong, tenor soloist:
Mme. Peduzzi, contraito, accompanied
by Violetto Marks.

8:20 p. m.—The Rhode Island historian.

8:35 p. m.—A. and P. Gypsies.

9:30 p. m.—Correct time.

9:31 p. m.—General Motors family party.

10:30 p. m.—'Fiske Time to Retire Boys.''

Tuesday

For the convenience of radio fans the following hourly schedule of broadcasting today is given in brief form. Figures following stations de-note wave length. The hours are based on Eastern Standard Time.

LOCAL STATIONS 10.30-Lecture, WLSI, 248. 10:45-Church, WFCI, 242. 11:00-Church, WEAN, 275. 1:30-Concert, WCOT, 225. 2.00-Music. WEAN. 275. 2:15-Talk, WCOT, 225. 3.00-Conference, WJAR, 484. 315-Music, WEAN, 275. 4.00—Conference, WJAR, 484. 5:30—Lecture, WLSI, 248. 6.30—Organ, WEAN, 275. 7:00—Music, WEAN, 275.

7:00-Music, WEAN, 275.
7:15-Weather, WJAR, 484.
7:20-Concert, WJAR, 484.
8:00-Correct time, WEAN, 275.
Church, WLSI, 248.
9:00-Music, WEAN, 275.
Talk, WJAR, 484.
Orrect time, WJAR, 484.
0:30-Music, WEAN, 275.
10:00-Music, WEAN, 275.
10:15-Music, WEAN, 275. EASTERN STATIONS

9.00—Children's hour, WJ.7, 454: WPAP, 395. 9:30—Church, WKBW, 217. 10.15—Church, WNYC, 526. 10.20—Church, WHI, 405. 10.30—Church, WHAM, 280, WGY,

10.30—Church, WHAM, 280, WGY, 380.

10.45—Church, WGR, 303; WKBW, 217, WIP, 349.

10.50—Church, WELI, 448

11:00—Church, KDKA, 316: WPC, 369: WBZ, 333; WDRC, 283, WQAO, 395.

12.30—Organ recital, WHN, 396

1:00—Feature, WJZ, 454: KDKA, 316. WHAM, 280: WBZ, 333. Music, WEAF, 492- WRC, 469. Organ, WKBW, 217. Feature, WHN, 296.

2 00—Church, WZAF, 492. Music, WHAM, 280. Orchestra, WHN, 295. Feature, WHO, 265. Roxy and His Gang, KDKA, 316. WBZ, 333: WJZ, 454, WRC, 459.

316. WBZ, 333; WJZ, 454, WRC, 459.
2:30—Music, WICC, 265.
Sunday school, WOO, 349.
3:00—Peature, WQAO, 395.
Talk, WEEI, 448.
Music, WBZ, 333; WRNY, 326, Ensemble, WJZ, 454.
Conference, WEAF, 492; WTIC, 535; WICC, 265.
Church, WRC, 469.
Music, WOR, 422.

535: WICG, 255.
Church, WRC, 469.
Music, WOR, 422.
3:15-Music, WEEI, 448, WPG, 273;
WRNY, 326.
3:25-Orchestra, WGY, 380.
3:30-Feature, WDRC, 283.
3.30-Feature, WDRC, 283.
3.45-Talk, WRNY, 326.
4.00-Organ, KDKA, 316: WJZ, 454;
WHAM, 280.
Church, WRC, 469.
Conference, WEAF, 492: WGY, 380.
WTIC, 535; WTAG, 517;
WEEI, 448.
Music, WOR, 522; WAAM, 349;
WRNY, 326.
Band, WBZ, 333.

RADIO

PROGRAMS

Continued from Page Twelve.

Continued Tail Tage 1 were.

12 35 p. m.—Organ recital.

4 00 p. m.—Musical program.

4 30 p. m.—Weather report.

6 00 p. m.—Short story period.

6.30 p. m.—Columbia broadcasting system program.

7.00 p. m.—Foot Peppers Orchestra.

7.30 p. m.—Temperature report.

7.32 p. m.—Lettita Graves, planist.

8 00 p. m.—Correct time.

8 00 p. m.—Correct time.
8 01 p. m.—Correct time.
8 01 p. m.—Broadcast from Metropolitan
Theatre studio.
9:30 p. m.—Charles Weygand's Old Time
Orchestra.
Friday

8.30 a. m .- Morning sing by the Shepard

Stores chorus.

9.30 a. m.—Women's Instituto conducted by June Abbott.

9:45 a. m.—"Swiss Maid."

10.00 a. m.—"American Homemakers," by Mrs. Ira S. Harrington.

10.30 a. m.—"Good Groceries," by Sally Savae.

Mrs. 173 S. Harting Company of the Sally Sawyer.

11:00 a. m.—"Good Groceries," by Sally Sawyer.

11:00 a. m.—"Symphony orchestra.

11:30 a. m.—"Microphone Gets Suggestions from Dorothy Dow."

from Dorothy Dow."

11 55 a. m.—Time signals.
12 00 m.—Concert program.
12:30 p. ma_Weather report.
12:45 p. m.—Viood gardening.
4:00 p. m.—Musical program.
4:30 p. m.—Weather report.
6:00 p. m.—Weather report.
6:00 p. m.—"Uncle Red," auspices Providence Safety Council.
6:25 p. m.—Radio talk by courtesy of the Rhode Island Society of Optometry.
6:30 p. m.—Jimmy Walsh and his orchestre.

tra.
730 p. m.—Temperature report.
7.35 p. m.—Caleb Ronander, violing Doris Anderson, pianist.
800 p. m.—Correct time.
801 p. m.—Correct time.
830 p. m.—Sandy MacFarlane and his Chimney Swallows.
9.00 p. m.—Columbia broadcasting system program.

program.

10.00 p. m.—Columbia broadcasting system program.

10.30 p. m.—Columbia broadcasting system program.

9 30 p. m.—Columbia broadcasting system program.

9 30 p. m.—Women's Institute, conducted by June Abbott.

10 00 a. m.—Spinjen session.

11 00 a. m.—Symphony orchestra.

11 55 a. m.—Time signals.

12 00 m.—Musical program.

13 30 p. m.—Weather report.

12 45 p. m.—Good gardening.

400 p. m.—Musical program.

430 p. m.—Weather report.

6 00 p. m.—Code instructions by radio through the courtesy of the American Radio Relay League, Inc.

6 30 p. m.—Hotel Biltmore Orchestra.

7 30 p. m.—Temperature report.

7 31 p. m.—Continuation of Biltmore Hotel program.

Portion of Bitmore Hotels program.

8.00 p. m.—Correct time.

8.01 p. m.—Program arranged by David Blair McCloskey.

9.00 p. m.—Rhodes Orchestra.

10.00 p. m.—Dance music by Jimmy Walsh and his orchestra.

11:00 p. m.—Hotel Biltmore Orchestra.

WJAR-THE OUTLET COMPANY-184

Skies."

p. m.—Weather report.

p. m.—Capitol Theatre program.

p. m.—'Our Government," by David

Lawrence.
15 p. m.—Correct time.
15 p. m.—Robert W Power's orchestra.
16 a. m.—Muscal program.
15 a. m.—Radio household institute.
15 p. m.—Studio program.
1:30 p. m.—Wusther report.

Lawrence.

4.15-Music, WPG, 273. 10.30-Music, WBZ, 333. 11:00—Organ, WIIN, 296. 11:15—Baseball scores, KDKA, 316. 4:30-Church, WFI, 405. 4:45---Vespers, KDKA, 316, 11.30-Orchestra, WHN, 396. 12:00—Church, WBSO, 384. Orchestra, WHN, 396.

4:45—Vespers, KDKA, 316.
5:00—Forum, WLWL, 270.
Music, WHAM, 280: WAAM, 349, WBZ, 333: WRNY, 326.
Organ, WDRC, 283.
Talk, WOR, 422.
Orchestra, WHN, 396.
5:30—Church, WBAL, 286: WJZ, 454; WBZ, 333: WHAM, 280.
Music, WEAF, 492: WGY, 380: WRC, 469: WRNY, 326; WEEI, 448: WTAG, 517.
Organ, WGR, 303.
Orchestra, WHN, 396.
5 45—Music, WRNY, 326. DISTANT STATIONS. 1.00-Music, WOC, 353t WJR, 294; WLW, 428; KGO, 384. WLW, 428; KGO, 384. 2:00—Muslc, WWJ, 375. Organ, WLW, 428. Roxy and his gang, KYW, 526; WTMJ, 294; WJR, 294; WOC, 353. 5 45—Music, WRNY, 326. 6:00—Special, WEEI, 448 Ensemble, WHN, 396. Lecture, WRNY, 326; WAAM,

2 30-Baseball, WTMJ, 294. 2 30—Baseball, WTMJ, 204.
2:45—Music, WMAQ, 448.
3:00—Conference, WOC, 253.
Music, WGHP, 294.
4:28; WLW, 428. KGO, 384.
3:30—Quartet, WIBO, 304.
3:45—Baseball, WMAQ, 448.
4:00—Conference, WSB, 476; WSM, 341. WSAI, 428.
Music, KFI, 469.
4:30—Orchestra, WTMJ, 204
5:00—Music, KNX 326; KFI, 469.
5:30—Music, WJR, 294; WOC, 353; WIBO, 304. WSAI, 428; WSB, 476.

W1BO, 304, WSAI, 426, 476.
5.45-Music, WMAQ, 448.
6.00-Organ, WTMJ, 294.
Music, KGO, 384; KFI, 460; WSAI, 428.
6.20-Organ, KOA, 326.
6.30-Music, KGO, 384; WMAQ, 448.
Travelogue, KYW, 526; WJR, 294.
7.00-Orchestra, WTMJ, 294.

6:30—Music, KGO, 384: WMAQ, 448.
Travelogue, KYW, 528: WJR.
294.
7.00—Orchestra, WTMJ, 294.
Music, WOC, 353, WSAI, 428:
KNX, 336.
7.20—Capitol Theatre program, W8B, 476: WWJ, 375, KOA, 326.
WSM, 341.
7:30—Feature, KFI, 469.
7:58—Music, WMAQ, 448.
Music, WJR, 441, KFI, 469.
WTMJ, 294.
8:10—Trio, WIBO, 304.
8:15—Music, WSAI, 361, WIBO, 304.
Collier's radio hour, KOA, 326.
KYW, 526: WCCO, 405.
MUSIC, WSAI, 361: WSB, 476:
WTMJ, 294: KNX, 336: WSB, 476:
WTMJ, 294: WLW, 428:
KOA, 326, WIBO, 304.
Atwater Kent hour, WSAI, 361:
WOC, 353: WSB, 476: WCCO, 405: WJR, 375Music, WJT, 294: WLW, 428:
KOA, 326, WIBO, 304.
Atwater Kent hour, WSAI, 361:
WOC, 353: WSB, 476: WCCO, 405: WJR, 375Music, KYW, 526.
9:35—Music, KYW, 526.
9:35—Music, KYW, 526.
9:45—Music, WJR, 294.
10:00—Music, KMTR, 526.
10:55—Music, WJR, 294.
10:00—Music, KMTR, 526.
10:55—Music, WJR, 294.
10:30—Music, KYI, 469.
10:45—Baseball scores, WCCO, 405:
Lecture, WCC, 405:
Music, WTMJ, 294.
10:30—Music, KFI, 469.
10:00—Music, KFI, 469.
10:00—Music, KFI, 469.
100—Music, KFI, 469.
100—Orchestra, KFI, 469.

WPG, 273: WHAM, 289: W02, 454.
—Music, WBZ, 333.
—Music, WHN, 396.
—Band, WOR, 422.
Music, WJZ, 454: KDKA, 316; WKBW, 217: WGBS, 349.
Drama, WEAP, 492: WGY, 380; WRC, 469; WFI, 405. 1:35 p. m .- Continuation of studio program.
6:45 p. m.—Earl Shean and his orchestra
assisted by William I. Carrigan,

8:30 p. m.—Thomas Cross, tenor, Violette
Marks, accompanist.
8:45 p. m.—Weather report.
8:50 p. m.—Rende Island Humane Education Society talk.
9:00 p. m.—Phileo Hour.
WLSI—LINCOLN STUDIOS, INC.—248
10:30 a. m.—Service from First Church of Christ Scientist.
5:30 p. m.—International Bible Students' program.
8:00 p. m.—Service from Church of the Seventh Day Adventist.
6:00 p. m.—Port Arthur Restaurant Orchestra.
8:00 p. m.—Harold Eddy and his orchestra.
7:00 p. m.—Harold Eddy and his orchestra.
7:00 p. m.—Health inventory by Prof.
8:30 p. m.—Health inventory by Prof.
Franklin N. Strickland.
8:35 p. m.—Franklyn Smith and his trio with Hazel White, soprano.
Wednesday
6:00 p. m.—Providence College Orchestra.
8:45 p. m.—Providence College Orchestra.
8:46 p. m.—Providence College Orchestra.
8:47 p. m.—Providence College Orchestra.
8:48 p. m.—Providence College Orchestra.
8:49 p. m.—Providence College Orchestra.
8:40 p. m.—Reception and banquet to Rt.
Rev. William A. Hickey, D. D. Bishop of Providence, broadcast direct from Biltmore Hotel.

Thursday
8:50 p. m.—Guerney Skylarkers.

Thursday
6 00 p. m.—Guernsey Skylarkers.
7.00 p. m.—Unclo Dave is with the children for 30 minutes.
8:00 p. m.—Mrs. Marian Tetreau, astrolo-

gist.

8.15 p. m.—WLSI Movie Club with the Twilight Hawaiian Quintet.
Friday

6.00 p. m.—Port Arthur Restaurant Orchestra.

7.00 p. m.—International Bible Students' 7.00 p m.—International Bible Studer program. 8:00 p. m.—Steinert's duo-art program.

10:30 p. m.—"Fiske Time to Reale 2003.

Tuesday

10:45 a. m.—Musical program.
11.15 a. m.—Radio household institute.
1.05 p. m.—Studio program.
1.30 p. m.—Weather report.
1:35 p. m.—Continuation of studio program.
6.50 p. m.—Baseball scores.
6:55 p. m.—Weather report.
7.00 p. m.—Bosconyland sketches.
8:00 p. m.—Sconyland sketches.
8:00 p. m.—Sconyland sketches.
8:00 p. m.—Sconyland sketches.
8:00 p. m.—Edward Keenan, tenor soloist, accompanied by Violette Marks.
8:30 p. m.—Edward Keenan, tenor soloist, accompanied by Violette Marks.
8:30 p. m.—Sciberling singers.
9:00 p. m.—Eveready hour.
10:00 p. m.—Eveready hour.
10:00 n. m.—Hiousewives Radio Exchange, a department conducted by Mrs. Wood on matters of household interest. Questions submitted will be answered by radio.
11:00 n. m.—Musical program.
11:15 n. m.—Radio Household Institute.
1:05 p. m.—Studio program.
1:30 p. m.—Weather report.
1:35 p. m.—Irving Spector, Violinist.
7:10 p. m.—Brying Spector, Violinist. 1.30 p. m.—Weather report.
1.35 p. m.—Iving Spector, violinist.
7:10 p. m.—Baseball scores.
7:15 p. m.—Royal Arcanum Band.
7:45 p. m.—Weather report.
7:50 p. m.—Weather report.
7:50 p. m.—Meather report.
8:00 p. m.—American Magazine and Woman's Home Companion hour.
9:00 p. m.—Correct time.
9:01 p. m.—Ipana Troubadours. National Broadcasting Company feature.
9:30 p. m.—Goodrich quartet and orchestra.

8:00 p. m.—Steinert's duo-art program.

7:00 p. m.—Hotel Dreyfus string quartet.
WFCI—FRANK CROOK, INU.—242.
Today.

10.45 a. m.—Services of Central Falls Congregational Church.
Monday.

2:00 p. m.—Musical program.
6:00 p. m.—The family hour.
7:00 p. m.—Baseball scores
7:05 p. m.—Blily Cah.il's original dance orchestra.

Tuesday.

2:00 p. m.—Studio program.

9.30 p. m.—Goodrien quarter and otensatra.

10:00 a. m.—Housewives' Radio Exchange, a department conducted by Mrs. Wood on matters of household interest. Questions submitted will be answered by radio.

11:00 a. m.—Rhode Island Tuberculosis Association talk.

11:05 a. m.—Musical program.

11:15 a. m.—Radio Household Iustitute.

1:05 p. m.—Studio program.

1:30 p. m.—Weather report.

1:35 p. m.—Continuation of studio program. orchestra.

Tuesday.

2:00 p. m.—Studio program.
6:00 p. m.—The family hour.
6:15 p. m.—Baseball scores.
6:20 p. m.—The family hour continues.
8:00 p. m.—The family hour continues.
8:00 p. m.—The family hour continues.
Wednesday.
2:00 p. m.—Musical program.
6:00 p. m.—Ernie and his danceland orchestra.
7:00 p. m.—Baseball scores.
7:05 p. m.—Uncle Dave's radio pals.
7:30 p. m.—Oscar's Style broadcasters.
Thursday.
2:00 p. m.—Studio program.
6:00 p. m.—The family hour.
7:00 p. m.—Baseball scores.
Friday.
2:00 p. m.—Musical program.
6:00 p. m.—The family hour.
7:00 p. m.—Baseball scores.
8:00 p. m.—Pawtucket Senior high school,

WCOT-CONN'S OLYMPIA-225
Today
1:30 p. m.—Musical program.
2:15 p. m.—Jacob Conn on pushing Providence to the front.

7:05 p. m.—Reo Wolverines.
8:00 p. m.—Pawtucket Senior high school,
"Fretted Instrument Club."
2:00 p. m.—Virginian Troubadours.
6:00 p. m.—The family hour.
7:00 p. m.—Baseball scores.

11:15 a, m.—Radio Household Institute,

1:05 p. m.—Studio program.

1:30 p. m.—Weather report.

1:35 p. m.—Weather report.

1:35 p. m.—Weather report.

7:10 p. m.—Baseball scores.

7:15 p. m.—Weather report.

7:20 p. m.—F. Slewart Stranahan, Jr., of the Title Guarantee Company of Rhode Island will give one of a series of human interest talks.

7:30 p. m.—Coward Comfort hour.

8:00 p. m.—Dodge Brothers presentation.

8:30 p. m.—Mr. and Mrs. Skit.

9:00 p. m.—Correct time.

9:01 p. m.—Rhode Island State Poard of Public Roads talk.

9:05 p. m.—Musical program by Vaughn A. Kazarian, baritone, and May Hughes, soprano.

10:00 p. m.—Halsey-Stuart program.

Friday.

10:00 a. m.—Housewives' Radio Exchange, a department conducted by Mrs. Wood on matters of household interest. Questions submitted will be answered by radio.

10:04 a. m.—A. and P. Bureau of Hone Economics.

11:05 a. m.—Radio household institute.

11:15 a. m.—Radio household institute.

11:20 a. m.—Black Jacksons.

WJAR—THE OUTLET COMPANY—184

Today

3:00 p m.—Young People's Radio Conference under the direction of Greater New York Pederation of Churches. Grenestra, "The National Youth March," Shackley, welcome to radio audience by Dr. Theodore F. Savage: hymn, orchestra, "Romance," Ruberstein, scripture reading by Dr. Theodore F Savage; anthem by quartet, 'Hold Thou My Hand," Lemont, address by Rev. Daniel A. Poling, D. D., subject, "Might of Right," anthem by quartet, "O Come to My Heart," Ambrose, questions and answers by Dr. Daniel A. Poling, orchestra, "The Old Refrain," Kreisler: benediction.

1.00 p. m.—Men's Conference direct from the Bedford Branch Y M. C. A: tubular chimes announcing the opening lour, doxology by two great audiences; word of greeting by H. Walter Riland; "Herald of Praise" (March), Scotney, Salvation Army Cadet Band; "Stand Up, Stand Up for Jesus," hymn. selection of songs by Commander Booth, Salvation Army Cadet band, scripture reading and prayer by Rev. John H. Kerr, pastor of Arlington Avenue Presbyterian Church, Brooklyn; march "Blessedly Baved," Mott, Salvation Army band, hymn "Yield Not to Temptation," address by Rev. S. Parkes Cadman, questions by Mr. Riland with Dr. Cadmin, hymn "O Beautiful for Spacious Skies."

D. m.—Weather report.

D. m.—Weather report.

D. Theodore P. Savage; hydronic Product of Greater New York Policy Products. The Product of Temptation of Temptation," address by Rev. S. Parkes Cadman, questions by Mr. Riland with Dr. Cadmin, hymn "O Beautiful for Spacious Skies."

D. m.—Weather report.

D. Theodore P. Savage; Product 2:15 p. m.—Jacob Conn on pushing Providence to the front.

Monday
2:30 p. m.—Studio program.
7:30 p. m.—Studio program.
7:30 p. m.—Jack Dean and Romeo Chaput, the two pals.
8:00 p. m.—Jack Dean and Romeo Chaput, the two pals.
8:00 p. m.—Golden Bell dance orchestra.

Wednesday
2:30 p. m.—Studio program.
7:30 p. m.—Wallana Hawaiians.
7:45 p. m.—Arthur Guilmet, vocal soloist
8:00 p. m.—Peter Favail, tenor soloist.
8:05 p. m.—Ernest Reddy, baritone soloist
Thursday
2:30 p. m.—Studio program.
7:30 p. m.—Studio program.
7:30 p. m.—Glana Hawaiians.
8:25 p. m.—Ernest Reddy, baritone soloist
Thursday
2:30 p. m.—Studio program.
7:30 p. m.—Ideal Battery entertainers.
3:30 p. m.—Grgan recital.
7:30 p. m.—Musical program.
8:00 p. m.—Musical program.
8:00 p. m.—Musical program.
8:00 p. m.—Studio program.
8:00 p. m.—Moonlight rambles in dance program. 11 100 a. m.—Musical program

11:15 a. m.—Radio household institute.

11:30 a. m.—Black Jacksons.

1:05 p. m.—Studio program.

1:30 p. m.—Studio program.

1:35 p. m.—Pollyanna.

6:00 p. m.—Muthal Savings Ban; hour.

7:00 p. m.—Musical program.

7:05 p. m.—Musical program.

7:05 p. m.—Baschall scores.

8:20 p. m.—Maschall scores.

8:20 p. m.—Hazei Mills and Gladys Longley, accompanied by Mary Budlong.

8:35 p. m.—Ma; R. Williams, general manager of the United Electric Railways Company in a five-minute chat with the people of Rhode Island.

8:40 p. m.—Weather report.

8:42 p. m.—Roy Partington, tenor coloist, accompanied by Violette Marks.

9:01 p. m.—Willtall Anglo Persiana.

9:01 p. m.—Willtall Anglo Persiana.

9:03 p. m.—Automobile Club of Rhode Island talk

9:35 p. m.—William J. McKenna, accompanied by Violette Marks.

10:00 p. m.—Palmolive hour.

Saturday

Saturday

Saturday

10:45 a. m.—Musical program.

11:00 a. m.—Mrs. Edward E. Gann, sister of Senator Charles Curtis, Republican Senate leader, will speak under the auspices of the Congressional Club. Subject—"Meal Planning."

11:15 a. m.—Radio household institute.
1.05 p. m.—Al Williams and his orchestra.
1:30 p. m.—Weather report.
1:35 p. m.—Al Williams and his orchestra.
1:35 p. m.—Meather report.
1:35 p. m.—Weather report.
1:45 n. m.—Weather report.
1:50 p. m.—Rhode Island Humane Education Society talk.
8:00 p. m.—EcoA Hour.
8:25 p. m.—Baseball scores.

KDKA-PITTSBURGH-316 0:45 a. m.—Correct time. 1:00 a. m.—Church service. 1:00 p. m.—Golden strand progr. 2:00 p. m.—Roxy and his gang. 4:00 p. m.—Correct time. 4.00 p. m.—Organ recital. 4.45 p. m.—Vesper service from Shadyside

OUT OF TOWN STATIONS

Presbyterian Church.

6 08 p. m.—Basebail scores.
6:15 p. m.—Symphony orchestra.
6:30 p. m.—Cook's travelogue.
7 00 p. m.—Correct time.
7.00 p. m.—Service from Calvary Episcopal Church.
8.15 p. m.—Collier's radio hour.
9:15 p. m.—Paula Heminghaus, contraito.
9:30 p. m.—Vibrant melodies
9:45 p. m.—Utica jubilee singers.
10:00 p. m.—Correct time.
10:00 p. m.—Correct time.
10:15 p. m.—Don Amaizo, the wizard.
11:15 p. m.—Basebail scores. 9:00 p. m.—"Our Government," by David Lawrence. 9:15 p. m.—Correct time. 9:15 p. m.—Atwater Kent hour, with Lea Luboshutz, Russian violinist. 10:15 p. m.—Biblical drama. WEEI-BOSTON-418

10:50 p m -Service from Old South Church.

3 00 p. m. - Sam Curtis radio chat.
3:15 p. m.-Musical program
4 00 p. m.--Dr. S Parkes Cadman, Bedford Branch Y. M. C A.
5:30 p. m.-Acquisition hour

WBAL-BALTIMORE-286 5 30 p. m —National religious services. 6 30 p. m.—Cook's travelogue. 7'00 p. m.—Concert orchestra. 8:00 p. m.—Artist recital. WBSO—BABSON PARK—384 p. m.—Midnight ministry.

WBZ—SPRINGFIELD—333

11 00 a. m.—Service from Trinity Church.
1.00 p. m.—Golden strand group.
2.00 p. m.—Roxy and his gang.
3 00 p. m.—American Legion hour.
4 00 p. m.—New Departure Band.
5 00 p. m.—Mrs. Frederick J. Renison, s.
prano: Grace Tucker, pianist and a companist

prano: Grace Tucker, planist and accompanist
5 30 p. m.—National religious service.
6 30 p. m.—Cook's travelogue.
7 30 p. m.—Blue and gold hour.
7 40 p. m.—Blue and gold hour.
7 40 p. m.—News flashes.
7 45 p. m.—Meuscal program.
8.15 p. m.—Collier's radio hour.
9:15 p. m.—Phantom and shadow.
10.01 p. m.—Correct time.
10.05 p. m.—Michaeline Smith Pooler, contraito. Carmella Parino, planist.
10 30 p. m.—Correct trio.
11.00 p. m.—Correct time and weather reports.

WDRC—NEW HAVEN—283

11:00 a m.—Church services from the Church of the Redeemer.

3:00 p. m.—Chinatown Rescue Mission.

5:00 p. m.—Organ recital.

0:15 p. m.—Weather report
WEAF—NEW YORK—192

100 p. m.—Hour of chamber music, with Katherine Palmer, soprano.
2.00 p. m.—Inetrdenominational Church services, under the direction of the Greater New York Federation of Churches.
300 p. m.—Young People's radio confer-ence. 400 p. m.—Young reopies radio conference.
400 p. m.—Men's Conference, Bedford
Branch Y. M. C. A
5 30 p. m.—Acousticon hour.

Branch Y. M. C A.
5.30 p. m.—Acousticon lour.
6.00 p. m.—Musical program.
7.20 p. m.—News dispatches.
7:30 p. m.—News dispatches.
9:30 p. m.—Newspaper sidelights.
9:10 p. m.—Newspaper sidelights.
9:15 p. m.—Correct time
9.15 p. m.—Atwater Kent hour.
10.15 p. m.—News dispatches. WFI-PHILADELPHIA-105 WFI-PHILADELPHIA-10.5

10 20 a m.—Service from Arch Street
Methodist Episcopal Church
4 30 p. m—Chappi service, under the auspices of the Church Federation of
Philadelphia
9 15 p. m—Correct time.
9 15 p. m—Atwater Kent hour,
10.15 p. m.—Biblical drama. WGBS-NEW YORK-319 9.15 p. m.-Chamber music. WGR—BUFFALO—303

10 45 p m - Service from Westminster Presbyterian Church.

12:00 m. - Weather forecast
5 30 p. m -- Concert organ.
7, 30 p. m -- Service from Central Presbyterian Church.

9 00 p. m -- "Our Government," by David Lawrence.
9 15 p. m. -- Atwater Kent hour.
10 15 p. m -- Time and weather forecasts. WGY-SCHENECTADY-380
a. m --International Bible Students
Association.

6:00 p. m.—National Symphony Orchestra. 6:55 p. m.—Baseball scores. 7.00 p. m.—Ilans Barth, concert planist. 7.20 p. m.—Capitol Theatre program. 9:00 p. m.—"Our Government," by David Lawrence.

3 25 p. m.—Eastman Symphony Orchestra.
4.00 p. m.—Men's Conference Bedford
Branch Y. M. C A.
5 30 p. m.—Acousticon program.
6:00 p. m.—National Symphony Orchestra.
7 00 p. m.—Hans Barth. concert pianist.
7 20 p. m.—Capitol Theatre program
9.00 p. m.—Our Government," by David
Lawrence 9:15 p. m - Correct time. 9 15 p. m -- Atwater Kent hour.

WHN—NEW YORK—396

12:30 p. m.—Organ recital.
1 00 p. m.—'Three Little Bachs''
2 00 p. m.—Symphony orchestra.
5 00 p. m.—Dance orchestra.
5:30 p. m.—Orchestra.
6:00 p. m.—Ensemble.
7:00 p. m.—Ensemble.
10:00 p. m.—Mers flashes.
10:10 p. m.—American celebrity hour.
11:00 p. m.—Organ recital.
11:30 p. m.—Orchestra. WICC-BRIDGEPORT-265
2.00 p. m.—Ted Smith and his orchestra.

10:15 p. m .- Biblical drama.

rian Church

We treat and dress all corns, cal-J. E. KENNEDY

CHIROPODIST 290 Westminster St.

2.30 p. m.—Theatre Guild. 3:00 p. m.—International Bible Students program.
p. m.—Musical concert.
p. m.—United people's forum WIP—PHILADELPHIA—349
10:45 a. m.—Service from Holy Trinity
Church.

WHAP—NEW YORK—236
8 00 p. m.—Sacred clioral music.
8 30 p. m.—Augusta E. Stetson, C. S. D.,
Christian Science reading from the
writings of Mary Baker Eddy, and
remarks
9 45 p. m.—Sibyl Marvin Huse, religious
reading.

WHAM-ROCHESTER-280 m. Service from Brick Presbyte

BOTH FEET \$1.00

louses and bunions for one dollar.
WHY PAY MORE?

WJZ—NEW YORK—154.

9.00 a. in.—Children's hour.
1:00 p. in.—Gold strand group
2:00 p. in.—Roxy and his gang.
3:00 p. in.—Unveiling of the statute of
Andrew Jackson by President Coolidge. Presented to the United States
by Governor Henry H. Norton of Tennessee; accepted by President Coolidge.

nessee; accepted by President Goolidge.

4:00 p. m.—St. George's Church vesper
services.

5:30 p. m.—National religious service,
6:30 p. m.—Cook's travelogue.
7:00 p. m.—Gorrect time.
7:00 p. m.—Summary of programs.
7:00 p. m.—Organ music.
7:30 p m.—Buckley and Chadbourne with
string trio. 7 00 p. m —Organ music, 7.30 p m.—Buckley and C string trio. 7.45 p. m.—String quartet.

8:15 p. m.—Collier's radio hour.
9:15 p. m.—Tango orchestra with
Pulido.
9:45 p. m.—Utica jubilee singers.
10:00 p. m.—Correct time.
10:00 p. m.—Utica jubilee singers.
10:15 p. m.—Don Amaizo, the wizard.

WKBW-BUFFALO-217.

9:30 a. m.—Episcopal service.
10:45 a. m.—Public worship, Churchill Tabernacle. Continued on Page Fourteen.

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MAKE YOUR HOME MORE ATTRACTIVE

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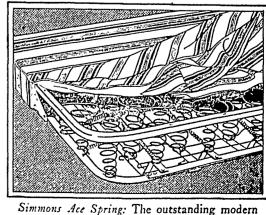
In the Beautyrest Mattress hundreds of color for each room. And each bed is tiny upstanding coils of finest steel are buried deep in layers of luxurious upholstering. What buoyancy, what glorious comfort! And the coils give such smart, well-boxed edges!

The buoyant Ace Spring with its trim tailored cover fitly upholds this splendid Beautyrest.

In furniture and department stores, Simmons Beautyrest Mattress \$39.50; Simmons Ace Spring \$19.75. Simmons Beds \$10 to \$60; No. 1850, \$37.50. Look for the name "Simmons." The Simmons Comluxury obtainable in sleeping equipment. pany, New York, Chicago, Atlanta, San Francisco.

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coil spring-light-weight, buoyant, enduring. The smart slip cover (additional) makes it look like a box spring.

Short Waves Coming Into Own as Channels of DX Reception

Surprising Distances Covered with Simple Regenerative Circuit, Using Interchangeable Coils.—Local Set-Builder Describes His Hook-Up

mains in the coil mounting at all times.

use the proper secondary-tickler com-bination for any wave band he chooses

to cover. The antenna coil is placed in close relation to the demountable coil, so that the inductance can be

varied when necessary. With each de-mountable coil (L-2) used, a slight

For the benefit of those fans who

may desire to construct sets of short wave coils, the following specifications

inches; 10 turns of No. 22 d. c. c. wire,

tres)-diameter of form, 3 inches; sec-

ondary, 30 turns of No. 22 d. c. c. wire,

are given for each coil necessary: Antenna coupling coll—diameter of form on which coll is wound, 212

maximum results.

(President, Brown University Radio Club)

L-2, the secondary, and L-3, the tickler, wound on a common form, are demountable, permitting the operator to

Short waves are coming into their own as channels for real DX reception. Due to present conditions, there is little DX possible on the broadcast wave Most listeners may sometimes bring in stations on the Pacific coast, but they cannot receive outside of North America unless they have exceptional locations. And most of us do not have exceptional locations.

Therefore, the best way for us to get DX is to tune down below 200 metres. Two hundred metres seems a "dead' wave. For certain reasons, signals travel the shortest distance with the least volume on this wave. However, signals are better on either side of the 200-metre wave, those beneath it being best for DX purposes.

At 100 metres, conditions are so much better that one may consistently receive European stations on any fairly good night, code signals, of course, pre-

At 80 metres, daylight reception is consistent up to 500 miles. Reception on any good night will cover the entire

At 40 metres, daylight reception is consistent up to 1000 miles. European stations, when conditions are right. come through before dark, and in the morning, just after daylight. Australia and New Zealand are sometimes heard.

The 20-metre band is a little tricky, or, at least, it seems so to the average radio fan who does not understand the theory of short wave transmission and reception. During the daytime, including the noon hour, European stations often come through on 20 metres. The West Coast of the United States can not be heard so well at noon, its short wave transmissions being heard more frequently between 2 p. m. and 5 p. m., Eastern Standard time. After 9 p. m., little is heard on 20 metres, with the possible exception of stations in the Antipodes, as the signals travel so far they literally miss the earth. This is known as "skip distance."

The accompanying diagram is that of an efficient short wave set which the writer has been using with excellent results for some time. Tuning is acresults for some time. Tuning is accomplished with low-loss short wave coils, of which there are several good makes on the market.

L-1 in the accompanying diagram is the antenna coupling coil, which re-

of No. 24 d. c. c. wire, close or bank 80-metre coil (range, 50 to 100 me-

tres)—diameter of form, 3 inches; secondary, 14 turns of No. 18 bare copper wire, turns spaced the width of the wire apart, or slightly more; tickler, % of an inch away from the secondary, 8 spaced 14 of an inch away from the secondary, turns of No. 24 d. c. c. wire, close of bank wound.

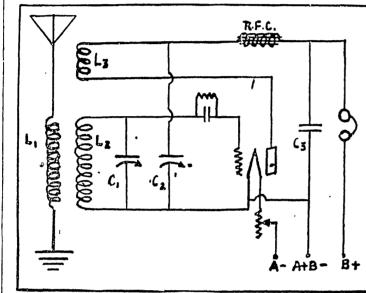
40-metre coil (range, 22 to 50 metres)
-dlameter of form, 3 inches, secondary,
turns of No. 18 bare copper wire, urns spaced the width of the wire apart, or slightly more; tickler % of an inch away from the secondary, 4 turns of No. 24 d. c.c. wire, close or bank wound.

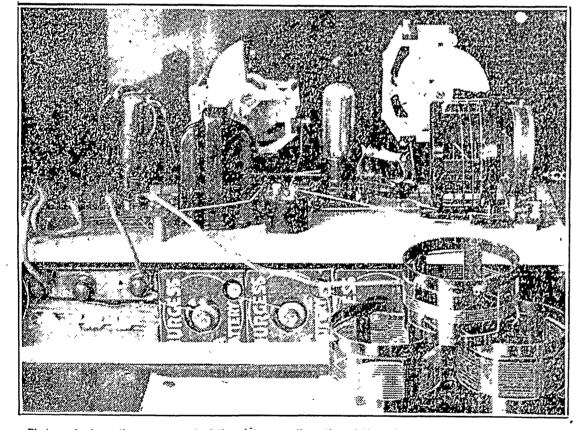
20-metre coil (range, 12 to 22 metres) spaced 14 of 3 turns of No. 24 d. c. c. wire, close or bank wound. change in the position of the antenna coupling coil (L-1) is necessary for

C-1, shown in the accompanying diagram, is a 7-plate variable condenser, while C-2 is a 13-plate variable condenser. These should be of the straight line wave length type. C-3 is a .0005 by-pass condenser. The grid condenser is of .00025 mfd. capacity. The type of gril leak used depends upon the tube. The writer uses 199 non-microphonic tubes, with a grid leak of 7 to 8 megohms, sealed in a vacuum. R F. C. in the diagram designates an 85-milhenry radio frequency choke.

At least one stage of audio frequency turns spaced the width of the wire apart, or slightly more; tickler, 1/8 of foreign DX clearly and audibly when an inch away from secondary, 10 turns headphones are used.

Hook-Up of Short Wave Receiver, Described in the Article





Photograph shows the arrangement of the parts, as well as the relation of the antenna coupling coil (extreme right) to the demountable form on which secondary and tickler are wound. In the foreground are shown 100, 80 and 40-metre coils. The one mounted in the set is the 20-metre coil.

WTAG-WORCESTER-517

WTIC-HARTFORD-535

ANSWERS TO RADIO TEST

It usually equals the original installation cost. This may be anywhere from \$25,000 to \$750,000 a

Yes. The negative of the "B" con-

9 15 p m.-Correct time. 9.15 p. m.-Concert artists.

RADIO PROGRAMS

Continued from Page Thirteen.

p m.—Organ recital.
p m.—Evangeliştic service
p m.—Back home gospel melody hour
from the studio.

WLWI-NEW YORK-370. m.—Columbus Council, K. of C., 8:00 p. m.—Services from Paulist Church. WNYC—NEW YORK—526.

30.15 a. m.—New York Fire Department,
Branch No. 141, Holy Name Society,
communion breakfast at Hotel Astor.

WOO-PHILADELPHIA-319. m.—Sunday school.
m.—Organ recital.
m.—Services from Bethany Presterian Church

WOR-NEWARK-122.

WOR-NEWARR—122.

3:00 p m—Symphonic hour
4:00 p m—Cathedral heur
5:00 p m—H. S. Ortloff, narden talk.
7:45 p m—Sunday evening musical
8:45 p m—Randail Hargreaves, song discourse
9:00 p nl—Operetta in miniature.
9:30 p m—La Palina.
10:00 p m—American tingers
10:15 p. m—United Military Band.

WQ10-NEW 1GRK-395

WRC-WASHINGTON-160

WRC—WASHING HAS—200
11.00 p. m.—Chamber music
2.00 p. m.—Rosy and his gang
3.00 p. m.—Interdenominational Church
Service.

4.00 p m Service from Washington Cathedral.

6 30 p. m.—Cooks therefore 7 20 p. m.—Capitol Theatre prog 9 00 p. m.—'Our Government," Lawrence. 9 15 p. m.—Correct time. 9 15 p. m.—Atwater Kent hour. 10 15 g. m.—Biblical drama.

WRNY-NEW YORK-3

thedral.

p. m.—Acousticon hour.
p. m.—National symphony orchestra.
p. m.—Cook's tracylogue
p. m.—Copfiol Theatre program
p. m.—"Our Government," by David

m —Calvary norming services, m.—Inspiration for r m.—Calvary evening services,

nects with the positive of the elim-Yes It looks like an ordinary tube tester, but is quite different in de-WPAP-PALISADES-395, m.-Children's hour tail and rather complicated. WPG-ATLANTIC CITY-2:3 WPG—ATLANTIC CITY—11.3
3-15 p m.—Organ recital
4-15 p. m.—Community tocal and instrumental recital
9 00 p ru.—New flashes and bareball scores
9 10 p m.—Concert orchestra
10 00 p. m.—Sunday coming rational.

Analysis of the key stations shows that only about one-fifth of the time is paid for by advertisers. Yes That is one development in the equipment field.

the artists furnishing the entertain-ment, and, obviously, the announcer nimself remains in the background Just why this should be so is difficult and the personality of its stage and eliminator characteristics in combi-concert artists carries the same weight tion with certain types of circuits. as that of comparable artists does with

While I'm not primarily in the sell game, I come across many matters connection with purchasing that I feel point to important lessons of their own. I notice, for instance, that if a radio owner doesn't have luck with a certain plan he tends to want to scrap whole scheme rather than to whether he can overcome some of the

WITC-HARTTORD-535
30 p. m-National Youth Conference.
400 p. m.—Men's Conference from the
Bedford Branch, Y. M. C. A.
6:00 p. m.—National Symphony Orchestra.
7 20 p. m.—Capitol Theatre program.
9 00 p. m.—Our Government," by David
Lawrence
9:15 p. m.—Correct time. lained because he couldn't get proper reception in his location on the loop aerial with which his set was designed to operate. I looked the situation over and told him that it simply was matter of his not having the right location for loop success, and before I sary equipment to change over to an outside serial he had switched to another make of set, taking quite a bit of unnecessary loss in making a deal with the man who sold him the origi-

> This was an extreme case. But the thing works out many time, in a more modified way. People do not need to scrap good ideas; they only have to tone them down a little. If they can't

If complete electrification of a set might have its objections, the logical step is to try using a "B" eliminator Even after an owner has cone the limit In Parisian broadcasting, it is not he can go back part way rather inex-the custom to announce the names of the artists furnishing the entertain-vantages which would be lost alto-

as that of comparable artists does with the same weight of the comparable artists does with the comparable artists are considered of the value of ethereal comparances. If this is the reason, or cuit alone it does not develop. Here is any part of it, there are many in this eppearances? If this is the reason, or cult alone it does not develop here is any part of it, there are many in this an instance where it is possible to country who feel the same way about enjoy many of the advantages of "B" it. Tempting prices for radio work, climination while at the same time however, are changing the picture conjusting battery current by part of the

Brides of Today—And of Yesterday

Many a bride of yesterday recalls with pleasure the time when she bought her wedding gown at The Shepard Stores.



Her Travel Coat

Soft deep pile Llama cloth, Imported plaids and other soft warm materials make steamer and travel coats that any bride will be proud to wear on her them in the Misses' and Women's Coat Shop.

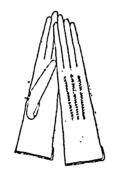
\$35 to \$135



Her Ensemble

The smart bride will wear an ensemble when she goes away. In our Fashion Shops, she will find ensembles of coat, skirt and blouse and ensembles of frock and coat in pleasing

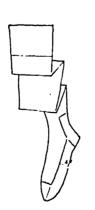
29.50 to \$295



Her Gloves

They should be chosen as these were to accompany a particular costume. These are eggshell color suede to match the ensemble. There are gloves for every occasion in every smart style in The Shepard Glove

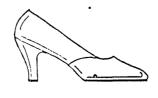
3.50 to 4.50



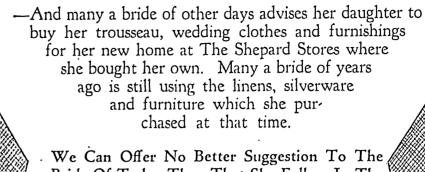
-And Hose

Her are the bride's own hose, sheer chiffon to match her wedding gown too. The bridesmald's hose may be bought here or may be dyed to order to match their frocks,

1.95 to 3.50



glass slippers. The bride of 1928 wears slippers of softest white kid. They are usually in opera style, very plain but very



Bride Of Today Than That She Follow In The Footsteps Of So Many Other Brides, To

The Shepard Fashion Shops

The smart bride of 1928 chooses a wedding gown as she chooses her other gowns—to suit her type. There are scores of wedding gowns to be seen at The Shepard Fashion Shops—trom the creation of heavy satin which is illustrated to one mostly of misty tulle. She chooses taffeta for her bridesmaids because it is chic and becoming. But should she prefer chiffon or lace, The Shepard Fashion Shops are equally ready to supply her de-

The Bride's Gown Illustrated Below

was inspired by Lelong. It is of ivory bridal satin combined with Chantilly lace. There are scores of other bridal gowns just as beautiful on display \$25 to \$110.

There are hals to match

many of these frocks or

they may be made to

The Shepard Stores

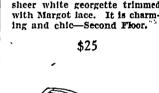
Bridesmaid Frocks

from \$25 to \$75.

order in the millinery Salon, \$25 to \$75. Many smart bridesmaids are wearing taffeta. frocks that were chosen with a view to carrying out the bride's ideas as to color and style. Their

Flower Girl Frocks

Dainty flower girl frocks are gette pleated or shirred over silk slips. You will find them in sizes for 3 to 6 year olds in the Little Folks' Store, 12.95 to



Her Bridal Set

Brides will love the new lin-

gerie that we are showing for

them. An ensemble of gown

and three quarter coat is of

Her Travel Frock

Frocks chosen for travel are

usually dark in color and simple of line. There are many

delightful frocks for this pur-

pose in The Shepard Fashion

Shops. The one illustrated is

16.50 to \$65

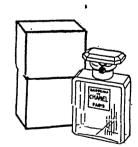
of beige flat crepe.



Her Hand Bag

This smart bag is of brown antelope with a jewelled clasp of marcasite. We are showing many other bags suitable to carry on the honyemoon and atterward.

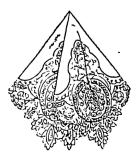
\$10 to \$35



Her Perfume

Gardenia de Chanel is one of those perfumes that one likes for its fragrance and also for its exclusiveness. Brides will find that it may be purchased only at The Shepard Toilet Goods

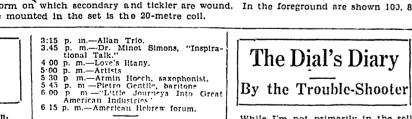
> 11/2 ounce bottle 13.50



Her Kerchiefs

Tiny squares of linen decorated with Apponzell embroidery or trimmed with lace-handkerchiefs for the bride to carry on the great occasion and afterwards. Bridal handker-

\$2 to \$5



4 00 p. m.—Moris Conference.
5 30 p. m.—Studio program
6 00 p. m.—Studio program
7 00 p. m.—Organ recital
7 20 p. m.—Capitol Theatre program
9.00 p. m.—'Our Government," by David
Lawrence.

objections through a compromise. I remember one radioist who comnal equipment.

see the value in going all the way with an idea they should try going part

ent, and, obviously, the announcer gether if he were to step backward moself remains in the background, completely. This is well illustrated in understand, for France has its idols and the personality of its stage and either the case of an annoyance known as "motor boating," which is due to "B" climinater characteristics in combinancer artists certies the same releft to the case of the combination of the case of t

Charming Slippers Poor Cinderella had to wear