

New Sir Oliver Lodge Set Stops Howl

# Radio Digest

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WEEK

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# No. 4 OFFICIAL BALLOT

## Announcers' Contest

### RADIO DIGEST THIRD ANNUAL GOLD CUP AWARD

GOLD CUP AWARD Editor, Radio Digest,  
- 510 North Dearborn Street, Chicago, Ill.

Please credit this ballot to:

.....of Station.....  
 (Announcer's Name) (Call Letters)

Signed.....

Address.....

City..... State.....

4-17-26

# NOMINATION CERTIFICATE

## Announcers' Contest

### Radio Digest Third Annual GOLD CUP AWARD

GOLD CUP AWARD Editor, Radio Digest,  
510 North Dearborn Street, Chicago, Ill.

Dear Sir:

I nominate.....

Station.....  
(Broadcasting Station)

Signed.....

Address.....

City.....

State.....

Announcer	Station
Stoess, W. C.	WLW
Sullivan, Jerry	WQJ
Scroggin, G. G.	KFEQ
Shannon, Spike	KDKA
Thompson, Roy F.	WFBG
Tomy (Chief) C. D.	WCX
Tison, Walter	WGHB
Tyson, E. L.	WWJ
Turner, Hobb	KFKX
Wolfreese, Andy	WOI
Wall, W. C.	WAPI
Wetzell, Maurice	WOOD

(Graham McNamee and George D. Hay, winners of the two previous Gold Cup Awards, have withdrawn from further participation in the cup awards, hence their names appear only for record in the above list. Do not send ballots marked with votes for either of these two announcers, as the votes will not be credited to anyone, but will be thrown out.—Editor's Note.)

A recent morning devotional service from KLDS, Independence, Mo., brought over a thousand cards and letters from listeners.

## WHISPERING PIANIST YELLS AT IMITATORS

### FEELS FLATTERED; ALSO "BURNED UP," HE SAYS

#### Art Gillham Calls Attention to Pioneering Efforts—Wants Listeners to Know Who Is Who

NEW YORK.—Art Gillham, the Whispering Pianist of Radio, arrived in New York recently, and brought with him a grievance that he picked up on his recent tour of the South and the Middle West.

"Imitation may be the sincerest form of flattery," says Mr. Gillham, "when I go into a town and find me that I am imitated, and so, it just burns me up."

Art Gillham has a devoted radio audience, and his impersonations covered long distances. He has been in old Drake, Mo., in December, and is necessary to shout into the ether.

Gillham is the first artist to appear in such a lowly position in the studio. He has not heard what was being said since he started on his first tour of states in May, 1924, and to date has broadcast from 208 different stations.

Lambdin Kay, well-known announcer at Station WSB, the Atlanta Journal, called Art Gillham "The Whispering Pianist" in an article on February 19, 1924. Since then this billing has been used. Mr. Gillham's style has been so successful that it has given rise to many imitators of his style. One artist, Art Gillham claims, has even gone so far as to lift word for word the type of conversation Art uses in his introduction.

## Carnegie Tech Will Offer Six-Week Course in Radio

PITTSBURGH.—As a result of the demand that has been developing during the past few years, a course in Radio communication, it is announced, is included in the plans for the summer session this year at the Carnegie Institute of Technology here. The college will give a six weeks' course from June 28 to August 6.

## NEILANS FIND SALLY AND MAKE HER MIK

MARSHALL Neilan and his wife, Blanche Sweet, were looking for Mike when they sauntered through the well-known Los Angeles ballroom a few months ago. They sat watching a group of dancers sweep past them at the same moment that they were looking at a frolicsome blonde curls bobbed on a mischievous head, whose sparkling eyes made a perfect mirroring circle.

## ONLY SEVENTY-EIGHT NAMES IN CUP RACE!

### LISTENERS HAVE WIDE SELECTION IN 1926 AWARD

#### Who Will Be World's Champion Announcer This Year? Three Cups on Prize List

Seventy-eight favorite announcers, two of whom have voluntarily withdrawn, have been nominated by admiring listeners to participate in the third annual Radio Digest Gold Cup Award for the world's most popular announcer. The two withdrawn on their own initiative, are George Hay and Graham McNamee, winners of the 1924 and 1925 awards. They wish to establish a precedent by announcing last issue, of the "Terms" for the Cup announce

Announcer	Station
Konecky, Eugene	WOAW
Junkin, George	KMOX
Lane, Frank	KVOO
Locke, C. B.	WBAP
May, Earl E.	KMA
Malin, Donald	WLS
Markham, G. E.	WGY
McArthur, Peter	WOC
McNamee, Graham (See footnote)	WMCA
Nelson, Ted	WOAW
Palmer, Lester	WOAW
Rouse, Gene	WOAW
Randall, Clyde R.	WSMB
Ryan, A. W.	CNRO
Ryan, Quin A.	WGN
Ryan, George S.	KDKA
Reid, Louis	WJZ
Rice, B. M.	WORD
Swanson, Gus	WOAW
Schilling, John T.	WHB
Squires, Eddie	WJAX
Stace, W. C.	WLW

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## Looking Ahead

...dance and the Instinct of a Pair... New York News Whippets lead's them into the tangled depths of a... they contend against extreme odds to rescue beauty in Fullerton beginning in...

Big Double

# OLIVER LODGE INVENTS "N" SET

## NEWS BRIEFS FROM THE BROADCASTERS

### NO AIR TIME LOST BY WPG INSTALLING SUPER SET

**Dornberger's Replaces Coon-Sanders Orchestra at KYW—WEAN Has American Legion Program**

WPG, municipal station of Atlantic City, N. J., is making an installation of a 5,000-watt superstation without interrupting its broadcasting service. No time on the air will be lost in transferring from the old 500-watt equipment to the new.

"The Phantom Violin," the ghostly old master who ever and anon comes to the WGN, Chicago, studio from the land of the shades, was heard there again last week. His identity is being kept secret, and his program usually includes popular favorites as well as classics.

Charles Dornberger's orchestra has taken the place of Coon-Sanders's orchestra at the Congress hotel while the latter group of musicians, known for their broadcasts from KYW, goes on its annual tour.

"Round the Town with WDAF" is a new feature added to the Kansas City Saturday nights from 8 to 10 p. m. The feature is a series of pickups from Kansas City clubs and dining rooms.

A musical program and American Legion will be given on Thursday, April 15, at 7:30 p. m. Eastern time, on WEAN, Shepard Stores, Music and addresses by Commander R. B. Little. The program will be featured by Commander J. P. Hartigan, Executive Committee member B. W. ...

How to plant flowers and shrubs about your home this spring is told by WOC, Davenport, every Wednesday evening at 9:00 and Friday at 7:30 p. m. Central time.

### BACH, 91 YEARS OLD, IS HONORED BY WSOE

MILWAUKEE. — When Christopher Bach, Milwaukee's own composer, wrote his three operas and twenty overtures, little did he realize that the time would come when he would sit at the fireplace in his own home and hear selections coming over the air and dedicated to himself on his birthday.

WSOE, the School of Engineering station, here, recently gave a special program in commemoration of the ninety-first birthday of this famous composer. The program featured the music written by Mr. Bach.

A feature of the program was the cello selections by Hugo Bach, a son of the composer, while many of the Bach overtures were played by Pestalozzi's string quartet. Al Nitz, musical director of WSOE, and Katherine Kies Hardtke, pianist, also participated.

A tribute to the composer was paid by F. A. Vaughn, manager of the station, while telegrams from many parts of the country were received congratulating Mr. Bach on his birthday.

## FAMOUS ENGLISHMAN CLAIMS NEW RECEIVER CANNOT BLOOP

### Device Is Product of Three Years' Laboratory Experiments—Does Not Rely on Tuned Aerial—Circuit Details Are Kept Secret

By A. C. Blackall

LONDON, Eng.—A problem which has completely baffled Radio experts the world over for years past—how to do away with the howler or "blooper"—has been completely solved by Sir Oliver Lodge, the world-famous physicist and Radio pioneer.

Sir Oliver's epoch-making discovery will ensure perfect reception without aerial tuning, and will thus avoid the use of regeneration. It will not add to the cost of new sets, but will mean the alteration of existing receivers.

Sir Oliver has been working on his great invention in secret for nearly three years in his laboratory at Egham, Surrey. Briefly, his discovery consists of a set which cannot be made to bloop.

#### Eliminates Tuning He Invented

The change by which this result has been brought about is a comparatively small one, but it is not a change that can easily be incorporated in existing receivers, as these sets are relying on a tuned aerial and must howl when there is too much regeneration.

Sir Oliver, who introduced tuning to the world, and thus made Radio communication possible without chaos, has now taken it away again. By dispensing altogether with the tuned aerial he has abolished blooming.

When Sir Oliver filed papers on his new invention he found, as so often happens, that another man had been working along almost precisely the same lines—a Mr. Melinski. He approached Sir Oliver, and the two are now working as partners, with the interesting result that Mr. Melinski has evolved a supplementary patent of great value.

#### Invention Will Cheapen Receivers

Sir Oliver's great discovery is known as the "N" circuit. The first set under the new principle is still in the state of perfection. All tests have been made with a one tube set.

The invention may not be applicable to crystal sets. On a set only one control—that of the tuning system—is required. The "N" circuit replaces reaction is controlled automatically.

As regeneration, coupled with the new invention involves a royalty of \$5

### MUZIO'S SOPRANO VOICE IS LIKED



Claudio Muzio is one soprano listeners can tune in without fear. They have heard her many times over the air, the most recent occasion being her appearance over the WEA chain in an Atwater Kent hour. Her chief work is that of leading soprano for the Chicago Civic Opera company.



Coy, shy Irene Downing, above, is a much applauded pianist and organist who delights the Crosley WLW audience with her ability. Her artistry is a regular feature of the Cincinnati superpower station.

The feature will continue throughout April.

KTNT, the Calliophone station at Muscatine, Ia., has inaugurated a correspondence club for lonesome men and women of all ages. Excerpts from the letters are read over the air nightly at 9:30 p. m. Central time.

### WCAU Entertains British Guiana

PHILADELPHIA.—Georgetown, Demerara, British Guiana, reports successful reception of WCAU, Philadelphia. Besides hearing the Philadelphia station, the listener heard WMBF, Miami, Fla., and relayed WMBF's program to several friends through the Georgetown telephone exchange.



Hugh Fullerton

## Hugh Fullerton WRITES "Big Rabbit" FOR RADIO DIGEST

THE Big Rabbit ?????? Hugh Fullerton, famous author, sports expert, and magazine writer hits a new and broader stride in a brand new love story with a powerful romantic theme which will begin in next week's Radio Digest.

It's a story of the South, but quite different in treatment than anything ever written before of this land of romance. The Big Rabbit deals with negro fanatical superstition, bringing out tragedy and comedy by turns.

Fullerton shows he understands emotions that rise higher than the shouts of the bleachers. He shows that a New York news hound has the same instincts in a maze of alleys or a Florida jungle and can stick to a trail that seems hopelessly baffling. And with love waiting there as an added incentive—

Imagine the thrills. There's a leap and a jump on every page, with the life of a beautiful Georgia peach in the balance.

Yes, you'll agree that Hugh Fullerton has a place in the purely fiction field when you read this story which will be found only in Radio Digest. Do not miss the opening chapters in the next issue, April 24.



It won't be long now, until Lorraine Allen, above, is graduated from the University of Arkansas, for she's a senior. Her talent at the piano of KUOA, Fayetteville, Ark., has earned for her the title of "Queen of the Ivories."

in England, the elimination of regeneration will lead to cheaper receivers, as the other device can be dispensed with.

The "N" circuit is simple and capable of construction by any fan.

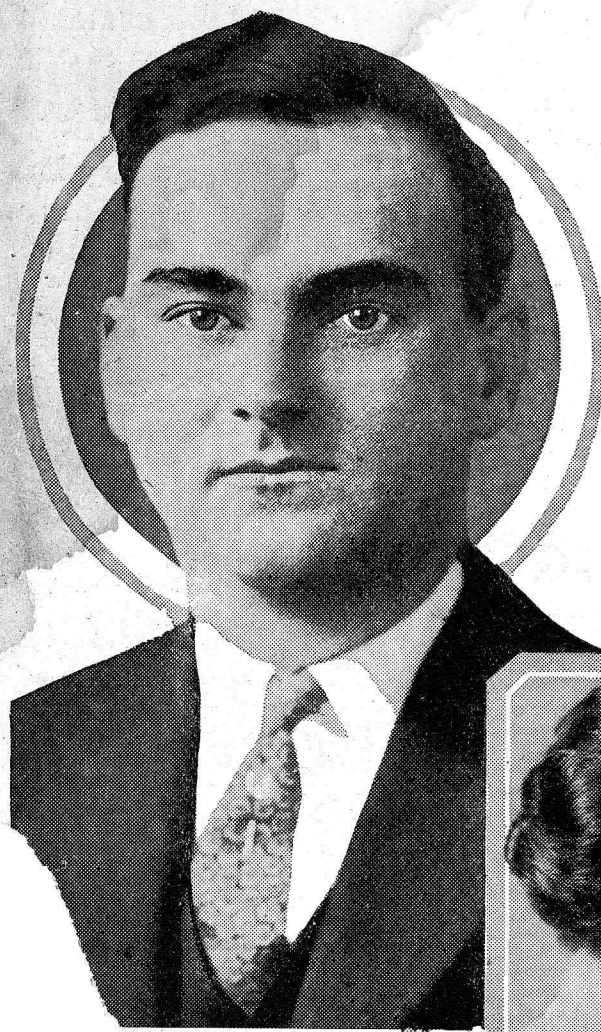
Sir Oliver's definite claim for the invention is that it eliminates regeneration control and makes blooming impossible, but at the same time retains the feedback effect, so that the detector tube works with maximum efficiency.

The many tests that have taken place leave no room for doubt that the device for which everybody is in search has been found. The users of the new set must be prepared to make very delicate adjustment, and this may be rather trying.

Sir Oliver states that he will shortly make known the results of his work.

# "Welcome to Pensacola," WCOA

## "Wonderful City of Advantages" Sends Mayor and City Treasurer to Washington When Other Appeals for Wave Allotment Fail. Public Servant Likes Job—Labors for Love.



ture on broadcasting apparatus. All was set for the purchase of a station in October, when it was found that Secretary Hoover had no available wave lengths to allot. The city commissioners were staggered for the moment, but they did not give up.

The story is well told by Celia Myrover Robinson's magazine, Florida On the Gulf, as follows:

"So Mayor J. Harvey Bayliss and City Clerk John E. Frenkel made a trip to Atlanta, and there met W. Van Nostrand, Jr., supervisor of Radio for the southeastern district, who accompanied them to Washington, where the Florida representatives, Senator Duncan U. Fletcher and Congressman J.

H. Smithwick helped them to get in conference with the powers that be. Permission was granted to the city of Pensacola then to install WCOA—one of the finest broadcasting stations in the United States, which three times a week will tell the world about Pensacola, "Wonderful City of Advantages." The magazine itself thrills with the ardor of youth and at the same time breathes a dignity worthy of the oldest city in the United States and continues:

"MONDAYS, Wednesdays and Fridays, if you will listen, you will hear Pensacola calling . . . to tell the world of this wonderful city of opportunities—a city with the largest naval air training school in the world, the only modern fortifications on the Gulf coast, old and historic forts, the purest water in the United States, the biggest red snapper business in the world and the best port in the South.

"It will tell about the advantages of Escambia county, which has had the greatest increase in farms during the past few years of any county in Florida; where one man cleared \$2,100 in Satsuma oranges on two and one-half acres of land last fall; where anything in the world may be grown; where the rainfall is plentiful and summer or winter life is a joy."

WCOA took the air during the early part of last February, on a 222 meter wave length. It is well equipped with the very latest improvements and makes the most of its 500 watts power.

Mr. Frenkel volunteered as public servant to sponsor the station as a city institution. He not only assumed responsibility for its physical well being, but he took charge of the programs. Having a good voice himself, he has not neglected the musical phase of the broadcasting. Others than Mr. Frenkel have taken pride in their station and volunteered cooperation with talent so that the entertainments have been diversified and universally interesting with never a dull program since the opening.

The studio has been carefully constructed with an eye to the artistic as well as the acoustic. The draperies are of a light gray corduroy velvet, plaited and decorated with fringe and tassels. The ceiling is finished in the style of Louis XVI. This is emphasized by the great crystal chandelier, five tiers deep, which scintillates to the four corners of the room.

At one end of the room against the gray background is a plaque with the WCOA letters standing out in clear relief in the dim light. The furniture is finished in burnt-orange and blue with a deep floss rug of blue to match. The piano is a Baldwin Artist Grand.

see about that," said Bayliss (above) as he was in Washington for a wave length. That's why you are able now to hear Anita O. Villar (right) singing over WCOA.



By HAROLD P. BROWN

MR. JOHN E. FRENKEL of Pensacola, Florida, is a public servant who likes his job so well he isn't satisfied with an ordinary day's work. He officiates as city treasurer and city clerk and after office hours conducts the municipal broadcasting station, WCOA, on his own time.

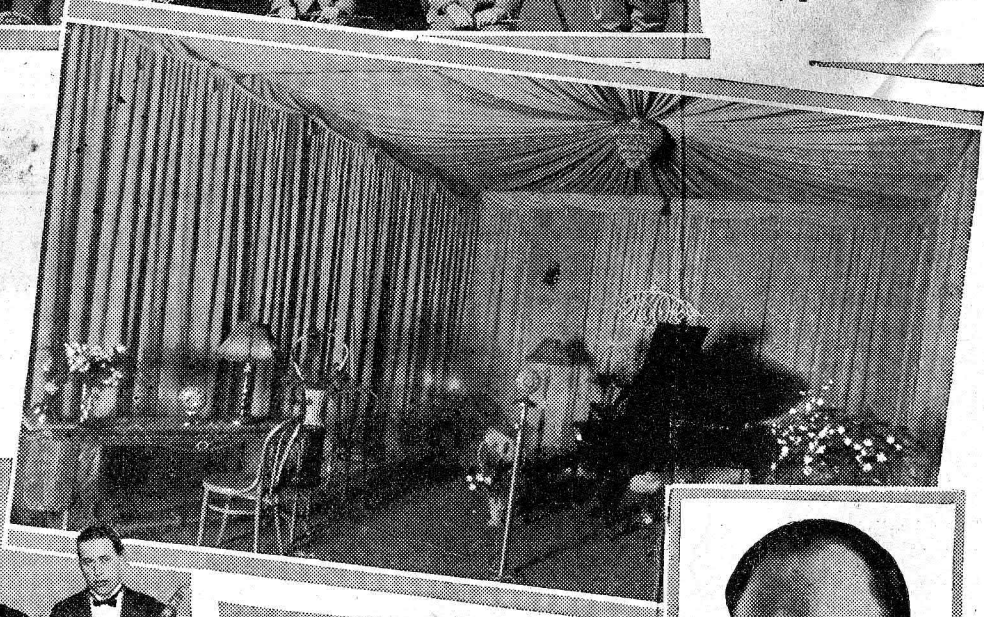
Don McLellan, city editor of the Pensacola News, says he has been trying to catch Mr. Frenkel at a moment of leisure for the past three months and hasn't succeeded yet. The busy man dashes away from his grapefruit and cereal to be at the city hall when the doors open. He buries his nose in the ledgers until noon, then sends out for coffee and sandwiches and between sips and bites, answers questions from a line of waiting citizens, snatching moments here and there to fill out marriage licenses for blushing applicants.

With Pensacola caught on the crest of the Florida boom, there is no end of work keeping up the city records and making official note of the big real estate deals and new subdivision openings. Pensacola is one of the big cities of the state and has been doing its full share to keep the west coast on an even keel with the east coast.

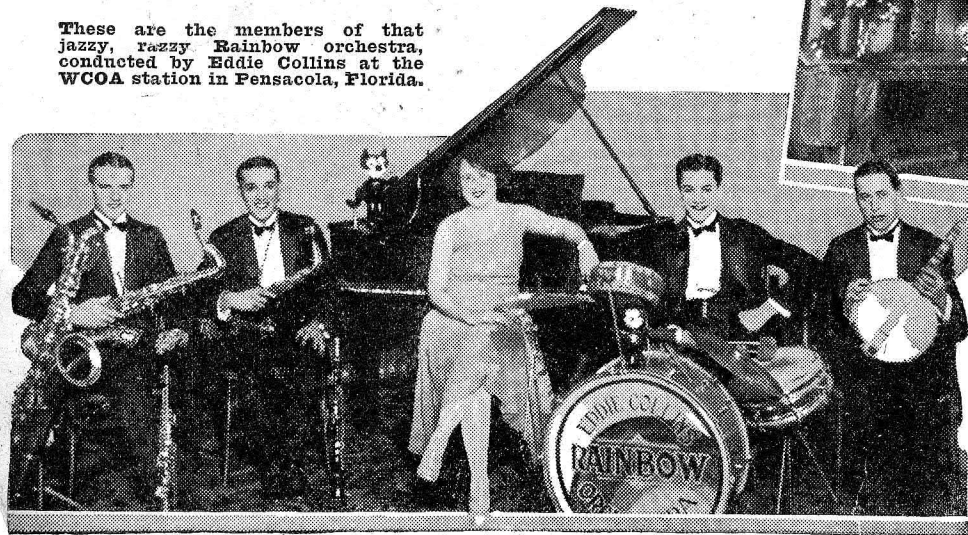
Along in autumn of last year, it was discovered that Pensacola had no voice in the air realms. This was at once considered a matter for grave concern. The city fathers pondered over the matter and sent for litera-



At left are members of 13th Coast Artillery band heard over WCOA. Below is a corner of studio as it appeared on opening night. In lower corner John E. Frenkel, public servant.



These are the members of that jazzy, razzzy Rainbow orchestra, conducted by Eddie Collins at the WCOA station in Pensacola, Florida.



One of the best known musical features of the WCOA station is the 13th Coast Artillery band from Fort Barrancas. It goes on the air from WCOA twice each month. Then, among the regulars, comes Eddie Collins and his Rainbow orchestra. Miss Anita O. Villar is one of the staff artists who has endeared her voice to a very large audience of listeners. (Continued on page 20)



# WOAW Radiates Brotherhood

## OMAHA Station Reaches Out Friendly Hand to All Listeners and Brings Them Together in Air Fraternity. Rev. R. R. Brown Has Radio Congregation Embracing 500,000 Members.

**F**EW broadcasting stations in the United States are so located that they may be heard regularly from coast to coast. One of these stations, however, is WOAW of Omaha. Even through the heat resistor months the WOAW programs are reported back from both coasts. Thus the fundamental purpose of the establishment of the station is achieved.

Be it known that WOAW is the official mouthpiece of the great fraternal order, Woodmen of the World, and is located on that fraternity's skyscraper building in the heart of Omaha.

"Nothing has changed so much in the last few years as the social life of the people," said President William A. Fraser of Texas, as he sat in the WOAW studio revising a speech he had prepared for broadcasting. He is one of those unusual big men who seem to spring up characteristically from the Texas soil. And he has been affectionately titled by his fellow workers "Big Bill Fraser," which seems to please him better than the title of president.

"With our daughters and sisters growing up to become business women," continued Big Bill, "and with the multiplicity of evening attractions including the automobile, movies, supper clubs and dinner dances taking up the hours of leisure, the home lives have been greatly altered. The kitchenette and the family hotel have taken the places of millions of family homes. The old-time neighborliness and community life seemed to be disappearing.

"All this was not conducive to fraternal growth and so we decided we would take our order to the people through the Radio. Through the Radio we find a great uniting force between vast numbers of people. They meet and become acquainted through the medium of the air. They may never actually see each other physically but they hear the voices and they feel a union of interests in many ways. They are experiencing a reawakening of spiritual interest through our religious services. They enjoy the same amusements and have their Radio clubs."

When Donald B. McMillan, the Arctic explorer, was frozen in on his ship the Bowdoin, eleven degrees from the North Pole, about 5,000 miles from Omaha, he sent a Radio message to WOAW saying, "Deeply appreciate your Radio chapel service in behalf of my men shut in near the Pole. Will listen for you again." This was considered one of the very essences of fraternalism through service to fellow men.

Among the feature activities of Radiophone WOAW, are the World Radio Congregation, and the Bible Study Hour. Every Sunday morning, at 9 a. m., Central Standard time, Reverend R. R. Brown, pastor of WOAW's Radio church, conducts a full service program from the studio of WOAW. His listeners are everywhere, of all types, and each of the members of the congregation is presented with a beautiful certificate, engraved, colored, and signed, upon proof of good character and regular Radio receiving of the services. The outstanding fact of the

Rev. R. R. Brown (below) who conducts church and chapel services from the Woodmen Radio station, said to have the largest congregation in the world. Arthur Randall (right) pianist.



Lester Palmer (right), program and studio director WOAW. Eugene Konecky (below), poet laureate and announcer at this station. Both are known by their initials.



"Big Bill" Fraser, president of Woodmen (top), in speech that was heard from coast to coast. Mrs. Carl R. Gray (left), Bible class leader. Below, home of WOAW.



Radio congregation is its interdenominational sect. Reverend Brown is a man selected by Mr. Fraser for his personal integrity and his ability to appear to a varied, cosmopolitan audience. Reverend Brown is one of the most popular preachers in the world. It is impossible to keep account of all the hundreds of gifts which find their way into the studio, from country-fresh eggs to a beautiful new touring car for his trips to rural districts to preach to enthusiastic Radio fans in person.

Mrs. Carl R. Gray conducts the Bible Study hour each Sunday at 6 p. m. She, too, conveys to her listeners, the religious idea. But, not as a preacher, not as a controversialist. Her message is that of the scholar, reflective, calm, interpretative, through research and investigation. Mrs. Gray's lessons are valuable because they bring people back to the original sources, because they go (Continued on page 20)





# a STEP ON the STAIRS

## Synopsis of Preceding Chapters

IN THE first four episodes of "A Step on the Stairs," which are now available for 25 cents in a special reprint, we find a group of a dozen members of the Turner family in the hunt-room of the old Turner manse. They are nerve-strained and very jumpy as the result of a number of weird incidents connected with the attempted seance whereby Peleg Turner, the last of the house to die, attempts to speak from beyond the grave through a Radio loud speaker and tell them who killed his brother, Jeremiah. Ardwyn, the lawyer, presides. Mary Williams seems to be involved in most of the strange events, and the finger of suspicion is pointed at her by Aunt Helen, a gabby old widow; Cousin William, companion to Aunt Helen; Hazel Stanton, a girl whose relation to the family does not seem entirely clear, and Henry Graves who offers his protection by marriage. His offer is spurned. In the last episode John Carton, apparently Mary's accepted lover, appears in the room after the others have left for refreshments in another part of the house. Mary had fainted when she thought she felt the corpse of Peleg Turner entering the room through the front door, supposed to be barred except for the passage of the dead bodies of Turners going to their final resting place. Ardwyn left to get her a sedative. Hari Singh, the East Indian servant, unexpectedly becomes an ally of Mary when Carton, who seemed to be hiding from arrest on suspicion of the crime, is about to be trapped by other members of the party. The servant lets Carton out a side door.

Before Hari Singh is able to return, the other guests enter the room and demand an explanation of Mary as to the voice that had been heard in the room. Mary evades the questions briefly, but soon Hari Singh calls for help. He is discovered dragging in the body of a man which he said he had found outside the door in the snow. It is Milford Jones, with a fractured skull. He had disappeared earlier during the seance. While suspicions for the various evil happenings are being cast about, F.Y.X. starts up. A number is rendered and F.Y.X. stands by for the ship's SOS. Suddenly—Peleg Turner's voice comes out of the loud speaker. He curses Jeremiah's murderer whom he says is in the house and will pay the price 'ere dawn. While pandemonium reigns and Tolliver is talking, the beam of an electric flashlight hits him full in the face. Attempts to locate the owner of the light are vain. A human chain is formed to count heads. Instead of eleven people in the room as it should be, there are thirteen! Tolliver hunts matches beneath the table and is engaged in a struggle. He finds them, places them on the table, and suddenly an unknown voice threatens to shoot to kill at the first flicker of a match. The speaker tells all others to remain quiet and they will not be molested. Then the intruders begin tearing up the brick work around the hearth. Aunt Helen declares there is a corpse on the floor at her feet. Finally Mary Williams obtains a revolver, and from a hiding place, guards the front door exit while Hari Singh announces from without that he is guarding the side door. One intruder, seeking escape, is shot by Mary. The front door swings out from the wall, casing and all. The police arrive and throw a beam of light in the room. All are ordered to hold up their hands. The raid leader calls Henry Graves by the name of "Doggy" French, evidently a known criminal.

THE STORY CONTINUES.

## CHAPTER FIFTEEN

### The Itinerant Corpse

THE bewildered men and women who ranged against the rear wall of the hunt-room with their hands in the air and their glassy eyes turned full into the searchlight would have been hard put to decide whether this place of horrors was more forbidding in the unplumbed shadows or in fearful brightness such as this. Every face was ghostly in the light that fell upon them through the door whence had been carried the bodies of the dead Turners in their century-old parade to the graveyard. Highlights stood out boldly. But back in the corners the fearsome shadows were still undispersed—a little blacker, perhaps, a little more terrifying than before.

Men were moving in the snow beyond the front door—state troopers in uniform, a city policeman or two, and deliberate, squarely carved men in overcoats who looked as if they might be detectives. Inside the room in the twilight at the edge of the glare moved a trooper captain and a lieutenant. Their interest seemed to be centered on two figures in the foreground—Henry Graves and a roughly dressed stranger who stood beside him.

"Has Mr. Everett come yet?" inquired the captain.

"Coming," boomed a voice from the doorway. "What have we got, so far?" A man in civilian clothing but apparently high in authority slipped into the room.

"Hard to say just what we have got," replied the captain. "There's 'Doggy' French out there in front but I can't tell yet just how many of our customers are victims and how many principals."

"Bring the trouble-light in out of the car," suggested Everett. "It's got thirty feet of wire on it—ought to reach easily."

A trooper carried out the order. He laid the wire close to a corner of the doorway and hung the lamp to a corner of the fireplace and turned it on.

"That'll do," observed Everett cheerfully. "Captain, your men will take the posts assigned to them. Ask the two federal men to step in here and we'll close the door. It's too chilly for any comfort."

In a moment, before the wide-eyed spectators could guess how it had been

# By ROBERT J. CASEY

Radio Dramatization by FRED SMITH

Illustrations by HILMER C. OLSON

done, the front door had swung shut once more as if to close out its hideous secrets. Two oaken bars lay across it, incontrovertible evidence that it had never been opened. But from somewhere beneath it wound a green wire, the lamp cord that furnished the battery current for the light on the mantelpiece.

"SEARCH the company for weapons, Captain Phelps," directed Everett. And he stood eyeing the crowd critically as this ceremony was in progress.

"No weapons," the captain reported. "I took the pistols from 'Doggy' and his pal right after we broke in here."

"Good," said Everett. "Put the cuffs on them and we'll take an inventory . . . Ladies and gentlemen you may lower your hands but please remain standing for a moment. . . Lieutenant Cass, would you mind looking under the table and seeing what's going on there. . . Something's moving. . ."

"A man," returned the lieutenant. "He's crawling out under his own steam."

"My head is bloody but unbowed," declared the mystery under the table. "Name's Tolliver—or was before I got soaked on the head. Sorry I wasn't up to welcome the gendarmes."

Tolliver straightened himself, clinging to the edge of the table for support. "Who hit you?" Everett inquired.

"Some prowler in the dark," Tolliver told him. "I don't know just who. But I won't bother to guess now that you've slipped the irons onto Henry Graves. He'll do on any indictment from arson to murder."

"If I had hit you I'd have killed you, you big-mouthed boob," countered Graves energetically.

"That's enough of that, 'Doggy,'" Everett broke in. "And you, Tolliver, who are you?"

"Everybody asks me that," Tolliver observed cheerfully. "I'm Maurice Tolliver. That's all there is to it. I came here like a sap without any alias. I stayed here the same way while everybody in the place went cuckoo. And somebody hit me on the head. . . By the way. . . This any use to you?"

He held out a white packet which Everett seized quickly with a sudden ejaculation.

"Where did you get that?" he demanded.

"Down on the floor where I was asleep. When I came to the boys were digging something out of the fireplace and setting it to one side. Little boxes with hinged tops. I opened one and those packets were inside. . ."

"Well, Mr. Tolliver," Everett said judicially, "That is a packet of cocaine. It completes our evidence. . . And I think you will agree with me it makes it doubly imperative that we find out what has been going on here."

"Here I am," taunted Mary. "Help me down." Whereupon Tolliver discovered her for the first time since the light had been turned on. "Why she's up there on the gun rack," he laughed.

"AS FOR that you'd better ask Mr. Ardwyn, the gentleman over there near the door. He was in charge of these proceedings until Graves or somebody choked him off."

"We may wait a minute or two until Mr. Ardwyn feels more like himself."

Ardwyn stepped forward unsteadily. "There is no need for delay," he said. "I am attorney for the Turner estate. I was Peleg Turner's counsel during his life. And I called this meeting tonight as I had been directed to do by my client in my last conference with him. I know very few of these people here but I think that all of them—not excluding Henry Graves there—can be identified readily as Mr. Turner's relatives."

Everett nodded. "I knew in advance that there was to be such a meeting," he said. "I feel as you do that we should be safe in taking for granted the innocence of every man and woman in this room. But we have to make investigations."

"These troopers are here—I am here—under orders of the federal narcotic bureau of Portsmouth. It has been evident to us for some time that a cocaine smuggling ring has maintained a headquarters near this house, if not in it. We were warned that they intended to move their supply tonight and I suspect that they were handicapped by your

seance. At any rate their attempt to call off the coast guard with a fake SOS did not succeed. So much for that. What we should like to know now is just how many of your party were in this room when the doors were locked."

"We started as twelve—not including Hari Singh who probably will be found standing guard with a shot gun just outside the hall door. One of our number disappeared and was found out in front with a broken head. That left eleven of us, but when I attempted to count heads in the dark I found thirteen."

"Funny," replied Everett. "One of the thirteen probably was 'Doggy' French's pal 'Jim.' Then, counting 'Doggy' in his role of Henry Graves as you knew him there ought to be eleven of you standing up there. And I can count only nine."

"You might count me as ten," laughed a voice from somewhere behind the federal operative.

"Mary Williams," ejaculated Ardwyn. "I had forgotten her."

"Where is she?" puzzled Everett.

"HERE I am," taunted Mary. "Help me down."

Whereupon Tolliver discovered her for the first time since the light had turned on.

"Why she's up there on the gun rack," he laughed.

"Just where I was when Henry Graves was looking for me," she announced. "Take this pistol, somebody, and help me down."

Henry Graves went white as he looked at her but he made no comment. The troopers lifted the girl from the rack to the floor and Everett, after an admiring glance, went on with his count.

"Even with this lady accounted for we are two short," he said. "We should muster thirteen including the two prisoners, or eleven without them."

"There's a man unconscious here against the wall," reported Captain Phelps. And as if his words had recalled a forgotten experience Aunt Helen Holmes began to gasp.

"It slipped my mind," she gasped. "I didn't tell you in the excitement an' all. But there was a corpse lying right there at my feet while all this fighting was going on. . . That was the thirteenth guest. . . A corpse. . ."

A sudden hush came over the company. The nerve weary guests felt as if the finding of a mere corpse would prove an anticlimax after the terrors of the night. The policemen, well aware of the character of the men they dealt with, knew that sudden death hovered perpetually over houses in which they rested. Captain Cass and Lieutenant Phelps made a hasty search behind chairs and in darkened corners until a sudden half-cry from Ardwyn drew them to the recess in the wall against which he leaned.

"There is the corpse, gentlemen," he said. "Turn it over in the light. . . what?" His calm voice rose to a sudden hysterical shriek. . .

"It can't be! it can't be!" he repeated dazedly.

"This is the body of Peleg Turner!"

## CHAPTER SIXTEEN

### The Step

"ARE you sure that's Peleg Turner?" asked Everett.

"There can't be any doubt of it," declared Ardwyn in an awed whisper. "You don't have to take my word for it. Most of these people here would know. And out there in the hallway is Hari Singh, his servant."

"Hari Singh would be the best witness," decided Everett quietly. "He isn't so likely to be hysterical. And John Carton is out there somewhere. Ask him to come in here."

There was a delay of only a moment while an eternity settled on the shoulders of Frederick Ardwyn and bent him forward, suddenly an old man. Presently the doors opened and Hari Singh, shotgun in hand, stepped across the threshold closely followed by John Carton. "The Sahib Peleg Turner," he gasped incredulously. "And dead. . ."

"Dead? Yes," snapped Everett. "How did you expect to find him? Alive?"

"Who am I to say who have never tried death?" shrugged Hari Singh. "I shall remember always the Sahib Peleg Turner as alive. And death seems so permanent."

"What about it, John?" inquired Everett of young Carton who stood gazing in horrified fixity at the corpse.



"That is undoubtedly my Uncle Peleg," he said tremulously. "We came too late."  
 "But how does it come that he is here?" pursued Ardwyn. "How could they have brought him here even if they could have had any purpose in doing it?"  
 "The front door, Mr. Ardwyn," John Carton told him after a plain struggle with his grief. "Peleg Turner came back into this house the same way he went out of it. . . . Through the front door."  
 "But the door was locked."

"YES. . . Locked and barred. I know all that. But it isn't like other doors. One of the Turners was a Tory spy and he built the thing as an emergency exit. I discovered the secret the night after Uncle Jeremiah was killed. The whole frame swings in or out of the wall on a pivot hinge. The locks don't mean anything. The legend should have kept anybody from attempting to tamper with it. And now poor old Uncle Peleg comes back through it."

"Then the ghouls who did this thing must still be here," declared Ardwyn with sudden fire. "Who did it?"

"Do you recognize any of these people, John?" asked Everett.

"Yes, nearly all of them," replied Carton. "You got two of the worst of them when you put the cuffs on Graves and Jim Teufel. The bulk of the others aren't crooks. . . . Hypocrites, perhaps, but not crooks."

"This one on the floor," suddenly interrupted Capt. Cass. "I thought it was Gus Marks. But it isn't. This fellow hasn't any beard."

"No," said Carton as he leaned over the prostrate figure. "That's not Gus."

"Gus is upstairs waiting for the doctor or the coroner. Hari Singh hit him with the butt of a shotgun when he broke out through the front door earlier in the evening. His name at this party was Milford Jones."

Capt. Cass turned the face of the unconscious figure toward the light and aroused a chorus of startled comment.

"I know him, too," observed John Carton. "This is my sanctimonious Cousin William Caryl and far be it from me to express the hope that whoever put him out did a good job of it."

Everett suddenly turned from the prostrate William and raised an ear toward the hall door.

"Who's that coming down the stairs now?" he demanded. "Anybody up there besides Gus Marks?"

FOR perhaps the tenth time since the old mantel clock had announced midnight a blanketing silence fell over the room. And once more came the echo of the step on the stairs. . . . A creaking indefinable footstep. . . followed as always by the tapping that slowly spelled out the fateful message—SOS.

"There are no stairs in that end of the house," John Carton announced suddenly. "Those sounds originate right here in this room. . . . Has anybody bothered to open that old cupboard at the end?"

The eyes of the company suddenly shifted and a trooper leaped across the room to the great walnut armoire that Carton's words seemed to have conjured out of the shadows.

"Stand back everybody while I open the door," commanded the trooper. "No telling what we may find in here." And he drew his pistol as he gingerly turned the key and threw back the front panel on its creaking hinges.

Out onto the floor dropped a reeling gray bundle.

"A man," breathed Mary Williams. "The man Millis was telling me about," cried Hari Singh. "The man in the gray overcoat who came from the sea."

"If this is another member of the gang we have him," reported the captain. "He seems to be about half smothered."

"He's not a member of the gang, Capt. Cass," replied Everett. "That's Tommy Mitchell of the Portsmouth narcotic squad. . . . How did he get in there?"

"I guess I locked him in," confessed Mary Williams in a thin startled voice. "I guess I locked him in."

*How did Mary Williams lock Mitchell, a man, in the cupboard and why? How did Peleg Turner's body get into the hunt-room? Who brought it there? The mysterious happenings are approaching a thrilling climax in next week's installment. Don't miss it.*

### Roy F. Thompson Is Named To Succeed Walter Greevy

ALTOONA, Pa.—Roy F. Thompson, known to thousands of Radio fans throughout the country as "R. T.," has been named by the directors of the Gable-Tribune Station WFGB, director and general manager of the station as successor to the late Walter S. Greevy. Mr. Greevy was also a director of the National Association of Broadcasters.

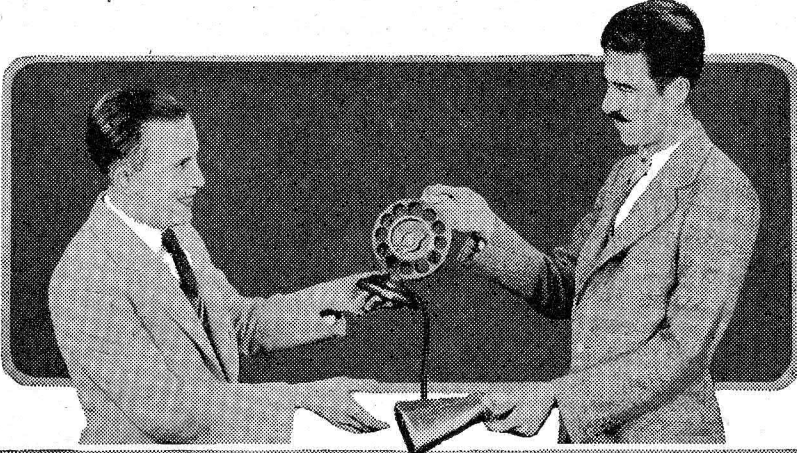
Mr. Thompson, prior to his new appointment, was very active in Radio work, not only as chief announcer at the station but he has also appeared on the programs as a vocalist.

## Charlie Wellman of KFWB Has New Lingo, Perfected for Microphone Use

Hollywood Announcer Gains Greater Clearness and Is Able to Speak Faster and Remain Distinct Due to His System of Using Only "Mike Words"

CHARLIE Wellman, manager of the Warner Brothers station, KFWB, at Hollywood, is generally conceded to be one of the best and popular announcers in the West. Exceptionally

remarks, as every announcer is, it seemed an almost impossibility at first to arrange his vocabulary so it would stay within these self-imposed rules, but the difficulty was solved by his determina-



Charlie Wellman, left, manager and announcer of KFWB, who has cultivated his "Radio talk," is here swapping his microphone with William Beaudine, famous movie director, for a megaphone.

fluent in speech, he is at all times distinctly audible and easily gets rid of 150 words per minute while many others in his line of endeavor struggle with about one-third that number.

Mr. Wellman, an enthusiastic and untiring Radio student, does not make any claim to extraordinary culture, but declares his success in announcing is due to a system of his own, the result of keen observation and constant practice.

Everyone acquainted with the rudiments of Radio is aware that certain sounds do not carry as well as others over the air—the soprano voice, for example—also that certain sounds and words are easily and frequently mistaken for others with sometimes laughable and embarrassing results.

Carefully taking these facts into consideration, about one year ago, Mr. Wellman decided to experiment and at last thinks he has the basis for a successful system of announcing for Radio. Like the answer to a conundrum, it is very easy when told, and the plan is so simple it is strange it has never been thought of before.

In speaking before the microphone he uses only three tones of his voice. These three have been selected after long and continual practice as being particularly suited to the mike and of the few tones used that will not blast when spoken, regardless of the volume used. He is also very careful not to employ words that grate or sound harsh over the air.

Called upon frequently for impromptu

tion to use in his daily conversation only words that would be suitable should he be talking into the microphone.

When asked a question he would pause deliberately and not answer until he had framed a reply in his mind that was air proof. The result is that when in the studio, no matter what the occasion, by sheer force of habit appropriate words come rolling off his tongue.

In Hollywood he is known as the "Man Who Talks Radio"—and what kind of a language is that?

### STATION WDAF SHOWS MUSIC MEMORIES LAG

Less Than Half of Papers Above Fifty Per Cent

KANSAS CITY, Mo.—WDAF, the Kansas City Star's station here, stumbled upon something in a recent program when a music memory contest was presented which developed that almost half of those who wrote in fell below a grade of 50 per cent.

Twelve standard numbers were played by the Radio orchestra. The announcer introduced the selections by number only, inviting listeners to jot down the title, composer and country. Then, if they cared to, they might mail their "examination papers" to the "schoolmarm" at WDAF, who would grade them with a red pencil and return.

## \$500 in Gold

FOR THE SOLUTION OF

## "A Step On the Stairs"

REPRINTS NOW AVAILABLE

SO MANY people are attempting to win part of the \$500 in Gold prizes which are being offered for solutions to "A Step On the Stairs," a reprint of the first four installments has been printed and may be had for the nominal charge of twenty-five cents, in coin or stamps, to cover the cost of handling. Address your order to the Mystery Story Editor, care of Radio Digest.

The chosen stations, which are broadcasting "A Step On the Stairs," in Radio play form, are given on page eleven. The days and the hours are listed.

### THE PRIZES

The prizes are seventeen in number. First prize is \$250; second prize is \$100; third to seventeenth prizes inclusive, are \$10 each. In the event of a tie for any prize offered, a prize identical in all respects with that tied for will be awarded to each tying contestant.

### HOW TO WIN A PRIZE

Nine installments of Mr. Casey's story will be published consecutively

each week. The first appeared in the February 27 issue. His tenth and final installment will not appear until the prize winning solutions have been selected by the judges. The solution nearest correct, that is, nearest to unraveling the mystery accurately, will win. The method of preparing the solution—its neatness, legibility, etc.—shall be considered.

### RULES OF CONTEST

1. Solutions must be received not later than midnight of Saturday, May 1. The ninth installment of the story will appear in the April 24 issue. The author's intended and final chapter will appear in the May 15 issue, together with the announcement of the winners' names.

2. The contest is open to everyone except employees of Radio Digest and their families.

3. Contestants pay no fee and need not be subscribers to Radio Digest. Solutions, however, must be written upon one side of paper.

4. The decision of the judges, to be named later, will be final.

## KWKH TURNS PIRATE AND HIJACKS ZENITH

SHREVEPORT JOINS WJAZ ON CANADIAN WAVE

Issues Defy to Department of Commerce After Petition for Increased Power Is Denied

WASHINGTON.—Fire has broken out in a new place among broadcasters who are dissatisfied with the wave length assigned them by the department of commerce and who have taken the law into their own hands and selected an air channel more to their liking.

According to reports to the department of commerce, Station KWKH, owned by the W. K. Henderson Iron Works and Supply company, at Shreveport, La., has followed the example of WJAZ, owned by E. F. McDonald, Jr., and is operating on 329.5 meters, which is assigned exclusively to Canadian stations.

### Both Sides Confident

At the present time there is pending in the Chicago courts a suit against Mr. McDonald for violation of the law in operating on 329.5 meters without authority. The case hinges on the right of the department of commerce to assign wave lengths to stations. A decision is expected on the case within a short time. Legal advisers of the department are confident the case will be won by the government. Mr. McDonald expresses himself as equally confident that the government will lose.

Before it decided to take matters into its own hands, KWKH operated on 261 meters, with around fourteen other stations. Dissatisfied with its channel, KWKH officials applied to the department of commerce for permission to increase its power. The request was denied on the ground that, with higher power, KWKH would drown out the other stations on 261 meters. The inevitable result, according to department of commerce officials, would have been that the other stations also would have likewise increased their power in an effort to drown out KWKH.

### Await Chicago Decision

No action will be taken on the Shreveport case by the department of commerce until a decision is made on the Chicago case. If the department wins in Chicago, it will almost automatically decide the case against the Shreveport station. On the other hand, if the department loses in Chicago, it may attempt to reopen the subject by fighting the case over again in the Louisiana courts.

Chief Radio Supervisor W. D. Terrell takes a philosophical view of the situation.

"If all the bad actors go ahead and operate on 329.5 meters," said he, "it would solve a big problem for us. We could ask the Canadian government to release that wave length and give them another in exchange for it."

To which all the "bad actors" would then shift, no doubt.

Serious as the situation may appear, department of commerce officials believe it will work itself out satisfactorily. In the event of failure to win in the courts, it is believed that congress will take the attitude that additional legislation is absolutely imperative and pass some kind of Radio bill.

## Moose Call and Paper Join Hands at WJJD

Reunite Three Old-Timers of WDAP Fame

CHICAGO.—A local newspaper, the Chicago Evening Post, and the Loyal Order of Moose station, WJJD, recently have effected a cooperative connection which brings three old-time Radio figures back together again.

In the old days of Chicago broadcasting, WDAP, Board of Trade station on the Drake hotel, was a popular favorite and one of the then few stations in the city. Jack Nelson was director, Ralph Shugart was announcer and Paul G. Neal was engineer.

Messrs. Nelson and Shugart became director-announcer and engineer, respectively, of the Moose Station WJJD, when it was built. Mr. Neal recently left Station WGN, formerly WDAP, to become technical editor of the weekly Post Radio section.

So with the newspaper and WJJD joining hands, the three men are once more associated in their work.

### Testing Radio Torpedoes

PARIS.—Secret experiments are being made at present in France of an invention by which it is claimed that the flight of air torpedoes can be controlled by Radio.









KDKA LITTLE SYMPHONY ORCHESTR

CLASSICAL CONCERTS INDEX

Table with columns for dates (Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday) and stations (Eastern, Central, Mountain, Pacific) listing concert times and programs.

Tuesday, April 20

Table for Tuesday, April 20, listing 'Headliners Today' and 'Eastern Time Stations' with station names and program details.



Bean Brummels of the quartet below. They ar making a fine reputation every Thursday evening; left is the musical direc the right is Kathleen F. Ryan will sing in the "1

Dinner concert, Speed-Wagon Serenaders; Gold Standard ensemble; 8:15, Reo Motor Car company band; special musical features; vocal and instrumental solos. WFVA, Richmond, Va. (256.3m-170ke), 6 p. m. V. M. I. orchestra; 6:30-8:30, V. M. I. Alumni banquet, yells, songs, talks, orchestra; 11, Old South Negro quartet; 11:30, Harold Lawrence, pianist; 12-1 a. m., Hotel Richmond dance orchestra. WTAG, Worcester, Mass. (268m-1120ke), 8-8:30 p. m., WEAF; 9-11, WEAF. WWJ, Detroit, Mich. (352.7m-850ke), 6 p. m., dinner concert; 8, WEAF.

Central Time Stations
KFAB, Lincoln, Nebr. (340.7m-880ke), 5:30-6:30 p. m., dinner concert; 8:05-10:30, University of Nebraska KPNF, Shenandoah, Iowa (263m-1140ke), 7 p. m., Hawaiian concert.
KFRU, Columbia, Mo. (499.7m-600ke), 6:15 p. m., dinner music.
KMA, Shenandoah, Iowa (252m-1190ke), 6-7 p. m., May Flower trio; 9-11, May's Mandolin Musicians.
KMOX, St. Louis, Mo. (280.2m-1070ke), 6 p. m., organ recital, Arthur Utt; 6:30, organ recital, Mrs. Jacques Landree; 7, orchestra; Dr. Julius Bischof, "The Bert Williams of the Air"; character songs, Mrs. Jules Rotter; 8, "In a Persian Garden"; 9, selections from English classics; Mrs. Madeline Mattingly, reader, 10, dance music.
KQIL, Council Bluffs, Iowa (277.6m-1080ke), 6:05 p. m., Clara and Lucy; 6:30, Royal Pontenelle orchestra; 7:30, E. Maginis Durr, pianist; 11, Hotsy Totsy hour.
KFRG, Houston, Texas (296.9m-1040ke), 7:30 p. m., Harry Kuston and his dance orchestra; Carl Moritz, tenor; 8:30, Skyline studios concert.
KSD, St. Louis, Mo. (645.1m-550ke), 7-10:30 p. m., WEAF.
KTHS, Hot Springs National Park, Ark. (374.8m-800ke), 9-10 p. m., Hot Springs Kiwanis club; 10-10:30, New Arlington hotel orchestra; 10:30-10:45, Joe Kuntz, accordionist.
KUOA, Fayetteville, Ark. (299.8m-1000ke), 8 p. m., musical program, students, Harry E. Shultz, Henry D. Tovey.
KYW, Chicago, Ill. (535.4m-560ke), 6-8:15 p. m., KDKA; 6:30-7, Congress hotel; 8-9, Henrietta Nolan, violinist; Melody quartet; 10-1 a. m., evening at home.
WACD, Akron, Ohio (285.5m-660ke), 6:30 p. m., Hotsy Totsy; 8, program; 9, frolic; 10, Times Press hour.
WBAP, Fort Worth, Texas (475.9m-630ke), 6-6:30 p. m., Texas hotel orchestra; 7:30-8:30, Virginia Jackson Wright, pianist; 9:30-11, Maggie Overstreet.
WBBM, Chicago, Ill. (225.4m-1330ke), 8-12 midnight, Jack Crawford's Aleutic orchestra; Tip trio; Pete Kules; Vivian Sheffer, contralto.
WCBD, Zion, Ill. (344.6m-870ke), 8 p. m., mandolin, guitar club; duet, Mr. and Mrs. Thomas; Mrs. LaRose, Mr. Barton; Mrs. B. Beem, soprano; Florence Farrar, contralto; Alice Peters, violinist; Daniel Mason, trombonist.
WCCO, Minneapolis-St. Paul, Minn. (416.4m-720ke), 7-9 p. m., WEAF; 10:05, "A Step On the Stairs," serial drama, 7th episode.
WEBB, Chicago, Ill. (370.2m-810ke), 7 p. m., Oriole orchestra; 8, marina band; saxophone quintet; saxophone quartet; Kathryn Forbes, soprano; 9-9:15, news; 9:15-10, Uptown theater; 11, Oriole orchestra; 12:30 a. m., Bernard Weber, tenor; Oriole trombone duo; Mark Fisher, songs.
WENR, Chicago, Ill. (265.3m-1130ke), 6-7 p. m., Rauland lyric trio; 8-9, All-American Pioneers; 9-10, Moody Bible Institute evening hour.
WFAA, Dallas, Texas (475.9m-630ke), 6:30-7:30 p. m., Jimmy Roy's orchestra; 8:30-9:30, Southern Methodist university faculty; bridge game; 11-12 midnight, Dallas Athletic club symphony orchestra.
WDAF, Kansas City, Mo. (365.6m-820ke), 11:45-1 a. m., Nighthawk frolic; Ted Weems' Victor Recording orchestra; Billy Adair's orchestra; Johnnie Campbell's orchestra.
WGBF, Evansville, Ind. (236.1m-1270ke), 8 p. m., musicale.
WGN, Chicago, Ill. (302.8m-990ke), 6:55-7 p. m., Drake concert ensemble; 8-9, WEAF; 9-10, studio program; 10-10:10, Sam 'n' Henry; 10:10, music; 10:20, play shop; 10:40-11, studio ensemble.
WHB, Kansas City, Mo. (365.6m-820ke), 7-7:45 p. m., dinner hour organ concert; 8-9, instrumental music, string quartet; 9-10, popular dance program.
WHAS, Louisville, Ky. (399.8m-750ke), 7:30-9 p. m., concert, Eddie Rosson and his orchestra; Signor Louis Carosio.
WHO, Des Moines, Iowa (526m-570ke), 7:30-8 p. m., Raleigh quintet; 8-9, musical program; 11-12 midnight, Bankers Life Corn Sugar orchestra.
WHT, Chicago, Ill. (399.8m-750ke), 6 p. m., dinner organ recital, Al Carney; 6:40, Grayling's string trio; 6:50, Diamond quartet, Loftis; 9:15 (238m-1280ke), Cinderella cafe orchestra; 9:35 (399.8m-750ke), Kitchen Klezzer entertainers; 9:50, popular song selections; 12, Pat Barnes.
WIBO, Chicago, Ill. (225.4m-1330ke), 6-8 p. m., dinner concert; Chester Newman, baritone; Bernice Taylor, soprano; Charlotte Edwards, contralto; Ruth Flier, reader; Helen Collar, pianist; string trio; 12, jamboree; Ted Fiorito, Dan Russo, Gail Bandell, artists.
WJAD, Waco, Tex. (352.7m-1190ke), 8:30-10 p. m., Mrs. J. L. Steton and friends.
WJAZ, Chicago, Ill. (322.4m-930ke), 9-1 a. m., Club







## DX RADIO BETTER AT 600 MILES THAN 300

STARTLING REVELATION IS MADE BY WGY SURVEY

General Electric Engineers Find Fading Cuts Close-by Signals—See Weather as Factor

SCHENECTADY.—Radio signals are better 600 miles from a broadcast transmitter than they are 300 miles, according to engineers of the Radio department of the General Electric company, under whose supervision an exhaustive investigation of Radio wave propagation is now being made.

For several weeks past, thousands of listeners have been cooperating with the General Electric company by reporting on reception of signals on broadcast bands. These cooperative tests are still under way and the conclusions are only such as suggest themselves from the preliminary reports. The engineers do not claim that the conclusions are absolute and caution that more exhaustive investigation may reveal some facts not yet apparent.

### Why Station Is Better at 600 Miles

In observing the variation of signal strength, it was found that the strength of the signal drops off rapidly during the first 300 miles from the station and that contrary to what might be expected, the signal strength actually increases and is apparently a little stronger at 600 miles than at 300 miles. Beyond the 600-mile point, the strength decreases again slowly to the limit of the range of the station. These distances are not definite values; they are averages from a large number of reception reports.

A study of the zones in which fading occurs shows that it is worst at about 200 to 500 miles from the station, and this zone, from 200 to 500 miles, is the territory in which there is the greatest percentage of "rapid fading" reports. Broadcast service is better at 600 than 300 miles from a station because fading is less and the signal strength is slightly greater.

These distances vary slightly with the power of the transmitter. Rapid fading is not often observed, however, and in this respect the regular broadcast waves seem

## COP OF SMOKY CITY TWEETS SYMPHONY

PITTSBURGH, Pa.—Conductor Saudek of the KDKA Little Symphony orchestra started something when he gave a whistle of surpassing musical tones to a traffic policeman whose corner is near the conductor's studio. The idea is spreading. Conductor Saudek has had numerous inquiries since he made a musical cornerman out of the policeman near his studio.

to be different from the short waves. The reports indicate that the date of fading increases steadily as the wave length grows shorter.

### May Predict Radio Reception

The main objective of the investigation in cooperation with widely scattered, volunteer assistants, is to answer the question: what is the relation between weather and Radio reception, or do weather conditions influence Radio? Variations of signal strength, static and fading are all bugaboos of the listeners and an effort is being made to relate these irregularities to changes in barometric pressure and temperature.

If definite relationships between Radio reception and weather conditions can be established, it will be possible to predict receiving conditions in any part of the country as reliably as it is now possible to forecast weather conditions.

Thus far investigations by General

Electric engineers indicate that the connection between barometric pressure and temperature with Radio conditions is not definite, or if it is definite, that it is so complex that it is not yet understood. Temperature seems to have no effect on the signals themselves, although it is known that in summer there is an increase in static.

The study so far shows that the barometer makes little difference when both transmitter and receiver are at the same pressure. When transmission is from a high to a low pressure area, transmission is best at short and long distances, but at medium distances of about 600 miles, it is best from an area of low pressure to an area of high pressure. The phenomena is apparently related to the distribution of storm areas over the country and requires a great deal more study.

### George Junkin at KMOX

ST. LOUIS.—George Junkin, "he of the smiling voice," who has been heard for recent weeks from Station WWSW, S. W. Straus & Co., Chicago, has been selected as the new announcer at Station KMOX, "The Voice of St. Louis."

### Marconi Recovers From Operation

LONDON.—Senatore Guglielmo Marconi is recovering from a minor operation here. It was feared that he was suffering from appendicitis but an operation proved this not to be the case. As soon as he is fit to travel, the "Radio wizard" will go to Naples to join his yacht.

## Will Tell Balloon Race Over Mikes

Stations Along Route of Flyers Will Keep Listeners Informed on Progress of Racers

HOT SPRINGS, Ark.—G. C. Arnoux, director-announcer for Station KTHS, the New Arlington hotel at Hot Springs National Park, here, has been appointed as a member of the meteorological and aerological committee for the Little Rock Air meet association in connection with the staging of the 1926 National Elimination Balloon races to be held in that city April 29 and 30, according to an announcement by the association.

Radio will play a big part in the holding of the balloon races this year, according to the preliminary plans which include an elaborate system of Radio information on wind and weather to be sent out by representative broadcasting stations throughout the section of the country likely to be traversed by the racers. Selection of the stations to participate will be announced shortly. A picked group of powerful stations will take part.

In addition, plans are being worked out to broadcast a Radio picture of the entire race meet direct from the field, through Station KTHS. Speeches by famous figures in air development and national leaders who will attend will form a part of this program.



33 PAT BARNES OF WHT  
Size 11x14 inches

## Photogravures of Your Favorite Artists

### GALLERY OF RADIO STARS

By special arrangement, Radio Digest is able to offer its readers a great opportunity to secure fine photogravures of their favorite Radio stars at practically no cost. Below is only a partial list of the photogravures now included in the Gallery of Radio stars. Complete list in April 10 issue.

- 16 Leo Fitzpatrick, "Merry Old Chief," WJR
- 17 Henry Field, 1925 Gold Cup runner-up
- 18 Al Carney, organ favorite at WHT
- 20 Vincent Lopez, No. 1 Pennsylvania orchestra
- 21 E. L. Tyson, pleasing voice at WWJ
- 23 Art Gillham, "The Whispering Pianist"
- 24 Paul Greene, announcer at WSAI, "bridge voice"
- 25 Harry Ehrhart, "Dream Daddy" at WLIT
- 26 Correll and Gosden of "Kinky Kids Parade" fame, at WEBH and other stations.
- 27 Norman Brokenshire, popular at WRC, WJZ

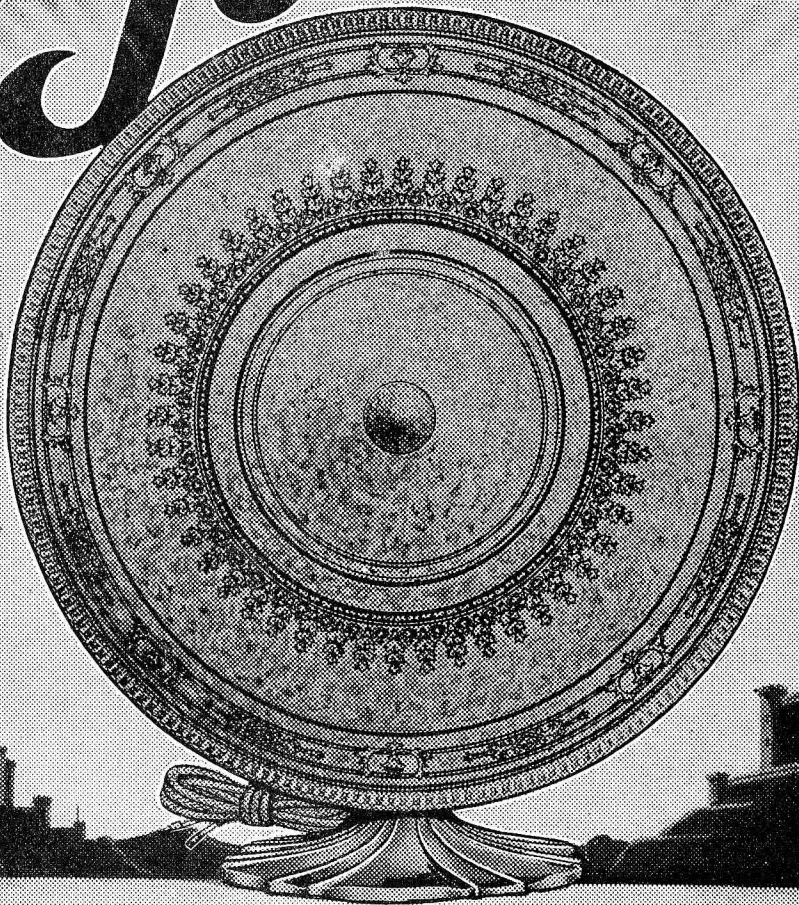
### COUPON NO. 17

This coupon entitles the holder to one photogravure selected from the Radio Digest Gallery of Radio Stars when accompanied by ten cents to pay the cost of mailing and postage. Three consecutively numbered coupons entitle the holder to three photogravures when accompanied by 25 cents. Remittance must accompany the coupon. Cash at your risk. Add 5 cents to personal checks for exchange.

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# The Tower CONE



**THE** most beautiful Cone in America! With those mechanical niceties that insure finer tone and volume, this Tower Speaker virtually revolutionizes present day conceptions. The double-drive unit, the acoustically perfect non-warping Cone, the eight connections from unit to Cone, the free-edge construction—these basic features establish Tower Supremacy.

On Sale by Good Dealers from Coast to Coast

**TOWER MFG. CORP. BOSTON, MASS.**



AN EVENING AT HOME WITH THE LISTENER IN IN EASTERN TIME

Table listing radio stations by location and time slots (Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday). Includes call letters, location, and broadcast times.

Table listing radio stations by location and time slots (Saturday, Sunday, Monday, Tuesday, Wednesday, Thursday, Friday). Includes call letters, location, and broadcast times.

STATIONS IN ORDER OF WAVE LENGTHS

Table listing radio stations in order of wave lengths, with columns for Meters, Call, and Station Name.

SHORT WAVES

By Marcella

(Continued from page 6)

Here's your answer, Jeanne, about N. Dean Cole, WHO's director-announcer. "Why, you're not old at all!" That's what you would say—if true to type—when you met "Old King Cole" in WHO's studio. Thousands have exclaimed the same, for they seem to associate King Cole as being a merry OLD soul, in accordance with the famous nursery rhyme. He is merry but not older than the light-hearted side of thirty. He's tall and slender and has blonde hair, rather than being wide of girth and bald, as my Mother Goose book depicts his namesake. He has blue eyes—ah, pools of limpid blue—and causes many a feminine heart to become unduly agitated. His clear, pleasant and vibrant voice is too well known to need description here. Besides having celebrated his second anniversary at the WHO mike on April 1 when WHO likewise marked its second birthday, N. Dean Cole supervised the building of the station. He is a versatile chap and knows all about the technical do-dads and thing-magigs around a broadcasting station. Nine years of experience in the telephone business and a two-year stretch at stringing wires and setting up instruments for the signal corps during the late disagreement with Germany, support his technical knowledge. His value is enhanced again by his talented baritone voice, for on many emergency occasions he has stepped to "Mike" and sung a baritone solo to fill in the minutes until delayed artists arrived.

Who was it wanted to locate Val McLaughlin, ex-WOC Sandman and later at WOA? "Jayhawk" was one, I remember. Here's good news for you. Tune in Val via WLS, Chicago, where she is doing a turn twice each week. I believe she is scheduled for Tuesday and Friday evenings. Understand she is doing some studying here to further her ambition and has taken up the two-a-week broadcast just to fill in her leisure time.

Now for a brief repetition notice of Ford and Glenn, the WLS Lullaby Boys, Several months ago I told all about them, but so many new readers have requested that I repeat and sketch the pair, that I must be pardoned for so doing. To begin with the usual shock: yes, they are both married, and each has a boy. And each boy is about eight years old. Both Ford and Glenn drive cars. In fact, motoring is the chief hobby of both members of the team. How did they team together? Edgar Bill, jovial WLS director, is the

guilty party. He knew both boys and thought they would make a good Radio team. When the two met in the WLS studio, the joke was on Mr. Bill, for the meeting was a reunion. They had known one another some years before in St. Louis. Ford Rush was born in New Orleans, age 32; weight, 175 pounds; height, 6 feet. Glenn Rowell was born in Pontiac, Ill., where he says they feed 'em corn—hence his girth. He's 5 feet 8 inches tall, 28 years old, 218 pounds heavy, and still likes pie and cake.

What deep secret would you like know about your favorite broadcast star? Drop me a note, girls and boys, and I'll do my best to answer here. MARCELLA.

MEAT PIES CHEAP DISH

(Continued from page 6)

much fat on the meat, it may be necessary to remove some of the melted fat before you make the gravy. Remember that if there is more fat than flour in the gravy it will be greasy.

The directions for cooking the meat read, "Let simmer until tender." Do not allow the meat to boil. Remember that meat should cook slowly at a low temperature if you would have it tender and juicy.

It is better to cut either the biscuit or pastry crust into small pieces rather than to place a solid crust over the whole pie. If you use one whole crust, be sure to cut holes into it to allow the steam to escape. I prefer individual biscuit because it not only bakes better, but it also makes a pie that looks better and is more easily served.

Other vegetables may be used in this recipe than those I have suggested. If you happen to have a few left over string beans they may be used in place of either the peas or carrots. Diced turnip is sometimes used, but be sure it is not too strong in flavor. Small cubes of potatoes or tiny potato balls may be added but many people prefer to serve the potatoes separately with the meat pie. Tomatoes may be added to the pie, but be careful that you do not add tomatoes to every meat dish you make because that makes them all taste more or less alike.

You may use different vegetables at different times; for instance, one day use celery and tomatoes, another day, turnips, and peas, and still another day combine carrots and string beans, or potatoes, celery and peas. Onion is good with any of the combinations. If you do not serve the meat pie very often and find that your family like it as it is, then I would serve it just that way and not tinker with it. You know there is such a thing as too much variety. When you find a recipe that you can make well and that everyone likes, you had better stick to it just as it is.

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Vol. XVII Saturday, April 17, 1926 No. 2

## That Music Copyright Question

WITH the senate and the house committees both carefully considering legislation to amend the copyright law to give Radio broadcasting a "square deal," it seems that perhaps the music problem will be settled this year once for all. One thing is sure: if the senate committee recommends that the Dill-Vestal bill be passed by the senate, the house will also fall in line, and the president, Mr. Coolidge, will sign the bill without question.

What makes us so sure about this? Well, William Butler, senator from Massachusetts, is chairman of senate patent committee which is, or was as this went to press, holding hearings on the proposed right law amendment. Mr. Butler, we shall expect, is a time-tried and true friend of Mr. Coolidge. In fact, Mr. Coolidge learned most of his political lessons from Senator Butler. The president admits it himself.

Being a close friend and adviser of the president, it is not unlikely that Mr. Butler will only need to give his stamp of approval to the proposed legislation in order to make it law. We should end this editorial here. It has no immediate purpose except to indicate a measure of optimism to the broadcasters and interests desirous of getting relief from the varying fee demands of the American Society of Composers, Authors and Publishers.

At one time, very early in the controversy between the music society and the broadcasters, we claimed that broadcasting stations were operated not for profit and therefore made nothing from the music broadcasts. In such a status we could see—then—but one perspective: that the music should be free to Radio broadcasters. It soon became evident, however, that practically every firm engaged in broadcasting was so engaged for the benefit of indirect advertising, an asset which could be charged against the station expenditures.

Courts in many districts soon upheld the decision that broadcasters were not operating without compensation for their efforts.

We then changed our position and said that the American Society did have some equity in its arguments. Every composer was entitled to remuneration for his works broadcast. If a station did not wish to pay the American Society the fees it asked, it did not have to broadcast American Society music. There was and is other available. If enough stations had stood together and flatly refused to broadcast American Society music, the society's fees would have been tremendously reduced.

The trouble was that the broadcasters, vying with one another for public recognition and appreciation, were too weak to stand together. But the American Society stuck together nobly and "stuck" the broadcasters.

There is the whole story in a nutshell. The whole affair is nothing but a controversy between the music producers and the music users. Where the public fits into the picture it is difficult to say, inasmuch as the American public does not have to pay for broadcast programs—at least, not directly. As a controversy, it was about as necessary to the swaddling infant Radio as cutting teeth is to the human baby.

Claims, counterclaims and charges have been made that the American Society is a trust, that the publisher members are thieves and crooks, and many other nasty things. We do not agree nor disagree. It remains for such charges to be proved before they carry weight. Why doesn't some well-financed broadcaster take the American Society before the federal trade commission and disband it? We have long expected such a procedure to be announced.

Maybe the copyright legislation will solve the problem. But we have an idea that the American Society will not like the new law—that is, if it becomes a law, Senator Butler recommending it. Then it will remain for the supreme court to decide the Dill-Vestal copyright law's constitutionality.

Perhaps that will be the end? Perhaps.

## RADIO INDI-GEST

### Rajah in a Low Back Chair

At evening—at ease, in a low back chair,  
Secluded from family, resigned from care,  
Untroubled by dour and deep meditation,  
I find combined in recreation,  
Pleasure and repose.

There in the dusk beyond the lamp's gleam,  
In a corner of twilight—there to dream.  
My hands on the Radio's glistening dials,  
My eyes half closed, across the miles  
Music at my touch.

A rajah in "make believe" then am I,  
In regalia beneath the flaunting sky.  
My tents are raised on the desert sand,  
Around me in silence my Arab band,  
While serenaders sing.

What rajah of old had more to amuse,  
Had more for his pleasure from which to choose?  
What rajah, or emp'ror, or king may hear  
Song of siren, and wisdom of seer,  
As I, in a low back chair?

THOS. L. WILLIAMS

### Go to the Head of the Class

Dear Indi: Leo Butts, a six-year-old boy at our school here in Burwell, Nebraska, was asked to spell Omaha and he spelled it W-O-A-W. I am twelve years old.

L. J. GARRISON

And to keep any little boys or girls from having to stand in the corner with the fool's cap, we will say that W-E-A-R spells rubber; W-H-O, insurance; W-O-O-D, furniture; W-O-R-D, church.



### "A FLOP ON THE STAIRS"

by THE THIRD TROMBONE PLAYER

#### Episode 3—The Phantom Killer

Synopsis—Sebastian Kreske, a retailer of reasonably priced Radio parts is being threatened by the trust. He can't raise his prices as he sells his goods in stores which sell nothing over one dime in price. What to do? Now read the rest of the story to Grandma.

KID DIRKUN, fearless copy boy, gracefully injecting 10 grains of heroin, fixed his limpid orbes on the five and dime magnate saying, "I have it, Mr. Kreske."

"Wass iss id," asked Kreske in his best Oxford accent.

Our hero was about to outline the plan when a woman's scream rent the midnight air. A dull thud followed. The millionaire had fallen to the floor. It took but a glance to see that he was dead. (Really now, this is getting beyond the limits of a joke. Even the Chicago police would not like it. Extra copies for sale at your druggists.)

(TO BE CONTINUED)



### Johnny's Map

Johnny Jenkins drew a map  
And laid it on his teacher's lap;  
A map of dear old U. S. A.,  
The towns all marked the latest way.  
Said his teacher: "Tell me why  
You've put the letter K F I  
In California? K S D  
Up in Missouri? K Q P  
In Oregon? It puzzles me!"  
And Johnny answered: "You would know  
If you but owned a Radio."

MADELEINE AARON

### Help! Help! Help!

In order to make DX reception better, perhaps the stations should lengthen their waves so as to make them reach farther.

ED ESS

Boy, go down and get the wave stretcher.

### Oil Right—Gas He Can

I name John D. Rockefeller for the Famous Fans club. He has more air stations than anyone else. CLANCY

### She's So Dumb

She thinks Wendell Hall is a girls' seminary.

### This Straw Vote Is All Wet

DO YOU FAVOR PROGRAMS WITH  
MORE THAN 2.75% SOPRANO  
CONTENT?

NO.....

Mark Any Two  
Squares

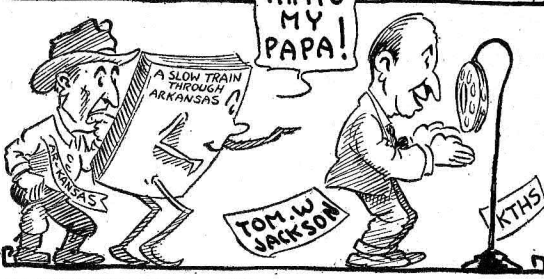
NAY.....

WHY NOT?.....  
(Give Reasons)

In an effort to ascertain if the constitution should have iron in it, this strictly impartial ballot is being taken. And what are we going to do about the wash? If any?

INDI

## News of the Week



## Condensed BY DIELECTRIC

Several obstacles prevented my successfully tuning Station KFKX, Hastings, Nebr., until the other evening, when the familiar voice of their announcer introduced listeners to a special musical program. It was nearly all interesting, though the work of a pianist made the most impression with a program of music of general appeal. Perhaps this station's audience prefers to know in what company it sits; at any rate, the announcer took pains—and time—to make clear that certain individuals in scattered locations were at their sets listening in to the features. None of the names were instructive to me and the numbers were, so that bit of information was superfluous.

We still face such a paucity of orchestra entertainment that visiting ships are called on to supply the lack by some of our broadcasters. Station WIP, Philadelphia, took advantage of the Leviathan's orchestra to fill one feature on an evening's program. The selections were uniformly choice and well rendered, having as an additional feature, soloists with much to recommend them for return engagements.

In the young American artists series of concerts from Station WLS, Chicago, we had the good fortune to hear a contralto with a voice of very good quality and training and to hear her sing compositions by American composers. One of MacDowell's gems was given with more than ordinary ability and makes one wish to hear this artist sing "The West Wind Croons in the Cedar Trees," by the same composer.

Another of those pleasing organ recitals from Station WHO, Des Moines, broadcast from the Capitol theater, was of a sort to encourage listeners to come back for more. That French woman composer, Cecile Chaminade, has left us some works of real beauty which comparatively few musicians today present to their audiences. It was a pleasure to listen to an adaptation for organ of one of the best of these and to note the organist's appreciation of its content.

Whether you would go to the theater and cannot, or frankly prefer to attend by the proxy of Radio, matters not with the possibilities presented by Station WBAP, Fort Worth, Texas, to enjoy diversified entertainment. The theater artists' concerts arranged by this station and frequently broadcast are attractive features. Tune in some evening and permit yourself to relax while listening to what is offered.

Station WQJ, you know how they accent "Chi-caw-go," included in a recent program the singing of some sentimental numbers by a tenor thoroughly versed in their style and a soprano, but a few minutes off a vaudeville stage. This was interspersed with the reliable sax in solo capacity. The whole was calculated to take any listener out of the dumps.

Those failing to tune in Station WSB, Atlanta, before the commencement of a well-planned program by the Rialto theater orchestra missed a very interesting and enlightening musical arrangement. It was introduced as the evolution of America: a musical history, beginning with the beating of the Indian tom-tom in a selection representing all of the weird and barbaric musical feeling of the early aborigines. Later we were treated to one of their romantic melodies—more romantic than melodic. The whole conception is something to merit our support, for America is truly forging to the fore in matters musical.

# Super-Torodyne: An Improved 8-Tube Super

## Part II—Front and Top Sub Panel Assembly

By J. E. Owen, Univ. of Okla.

**I**N THE first article of this series, the compactness of the Super-Torodyne was pointed out as a desirable feature, a point of relative superiority over many super-heterodynes. The writers of the articles on the Grand Prix and the DX-Seven Super-Heterodyne each brought out in a very favorable way the compactness of their supers—both of these sets being on the same size panel as that of the Super-Torodyne. The Super-Torodyne, however, has at least one unit not contained in either of the others; the antenna coupler. To provide this same feature it is taken for granted, then, that each of the others would require more space. Constructional details for the Super-Torodyne must be very carefully followed if real superior super-heterodyne results are to be expected.

The cabinet for housing the Super-Torodyne must take a panel 7 x 18 inches. It must have a depth of at least 8 1/2 inches,

the next article. The one of interest and importance here is the alteration of the mounting brackets. Sufficient detail for carrying this out is given in figure 5. Each bracket is cut into four parts. These are marked A, B, C, and D, in figure 5. Parts C and D may be junked. Part A is used for sub panel mounting, and Part B is used for mounting the binding post strip over the Victoreen transformers. For cutting these brackets, use any saw that will cut metal. In case such a saw is not available, some sort of a chisel may be used, although it may be necessary to file down rough edges and corners afterwards.

Follow the directions and dimensions of figure 6 for details of the binding post strip which is mounted over the Victoreen transformers with sections B that are obtained from cutting the brackets. The binding posts are placed on the strip in the following order: Ant; Ant; Gnd;

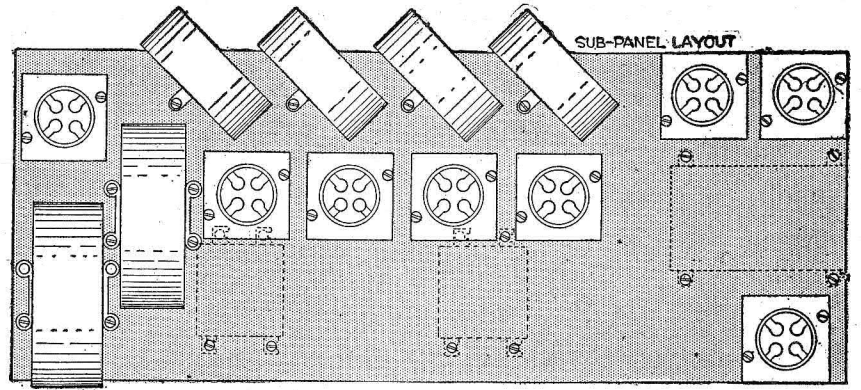


Figure 4

these on the sub panel, the secondary leads go to the right—that is, the side with the three binding posts is to the left. Both units are mounted in this way. Just back of these is located tube socket No. 1. This is the first detector. In the central section underneath the sub panel we have in front the two Tobe Deutschmann 1-mfd. condensers. These may be seen just below the Hammarlund variable condensers in figure 3. Just back of these are tube sockets Nos. 2, 3, 4, and 5. Nos. 2, 3, and 5 are the intermediate frequency amplification sockets, while No. 4 is the oscillator tube socket. Just back of these are the Victoreen intermediate stage transformers. These are placed at an angle of approximately 45° as shown. This angle is not at all critical, but may be roughly obtained by folding a square of paper along one of its diagonals. At the right, we have the second or audio detector and the two stages of audio frequency amplification, numbered 6, 7 and 8.

### Unusual Mounting

The two Jefferson audio transformers are mounted in an unusual way. To understand how this is done, turn one of them upside down with the plate and grid

binding posts to the right. Then place the other upon it in an upright position, also with its plate and grid binding posts to the right. The mounting flanges or ears will then be next to each other. Four stove bolts are run down through the holes in these flanges and through the

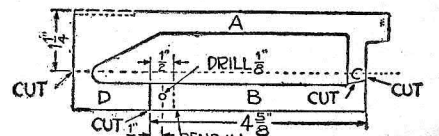


Figure 5

sub panel. Three and one-quarter inch stove bolts will be required. It will be necessary to ream out the holes slightly in the flanges on the transformers in order for them to accommodate the stove bolts. This double-decking method of mounting the audio transformers is used because it saves space.

In mounting the tube sockets, the filament connections are placed toward the (Continued on next page)

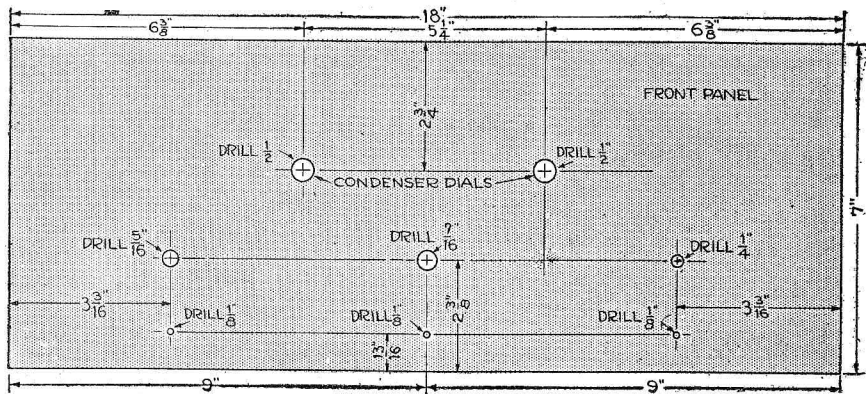


Figure 3

measuring from the back of the front panel. There should be no grooves holding the front panel at the top or bottom—that is, there must be a full 7 inches available for apparatus.

Formica was specified for the front panel and the binding post strip, also for the sub panel because it is so readily drilled.

All views will be considered as taken from the front of the set and from the dial side of the front panel, unless otherwise specified. It will be noticed that figure 4 gives the exact arrangement of the apparatus used above and beneath the sub panel. There are holes used in wiring that are not shown here, but these will be taken up in time, being purposely omitted in this article to avoid confusion. Figures 3 and 4 enable one to visualize the set complete. This makes drilling and assembly much easier and reduces the possibility of mistakes. There is, in this way, no difficulty in identifying the holes that are drilled.

### Few Modifications

There are a few modifications of some of the parts that must be made before the set can be assembled and wired. Two slight modifications of the toroid coils are necessary, but as these are more in the nature of wiring, they will be left until

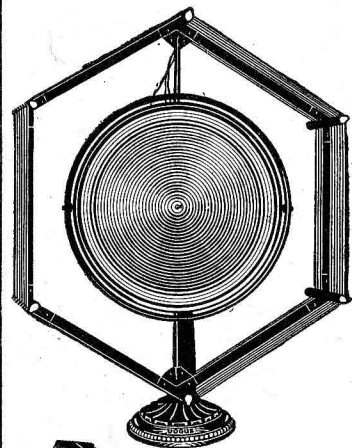
A Bat —; A Bat +; C Bat +; C Bat —; B Bat —; B Bat +; B Bat +; B Bat +; Speaker; Speaker.

### How to Make Brackets

While the assembly of all apparatus beneath the sub panel will be taken up in the next article, it is necessary to mount the sub panel on the brackets in order to go ahead with the assembly above the sub panel. The two holes 13/16 inches from the bottom and 3 3/8 inches from the end are for the sub panel brackets. Two 1/2-inch spacers are necessary, which may be cut from 1/4-inch pipe. Cut two sections 1/2 inch in length and file the ends smooth and square. Run the screws through these after they have been put through the holes in the front panel. The mounting brackets are then put on and are held away from the front panel 1/2 inch. This arrangement is important in order that the load will be more evenly distributed on the sub panel and upon the supporting brackets. Countersink the heads of the machine screws holding the brackets to the sub panel.

A comparison of figures 3 and 4 give considerable detail about the arrangement of the apparatus and, incidentally, the relations of the parts in the circuit. At the left, we have in front the two All-American T-2 transformers. In placing

# FREE TRIAL FOR TEN DAYS



LET us prove to you that the VOGUE UNIVERSAL CONE LOOP can greatly increase the efficiency of your Set without any risk on your part—if you don't like it, send it back.

**The Universal Cone Loop** has both horizontal and vertical action. Your reception is clear—interfering stations are cut out entirely.

### Aim the Loop

the same as you would a gun—the truer your aim, the better your reception. Static can be reduced to a minimum, signal strength greatly increased

—the best LOOP made for fine tuning. A \$30.00 standard made Cone Speaker is used.

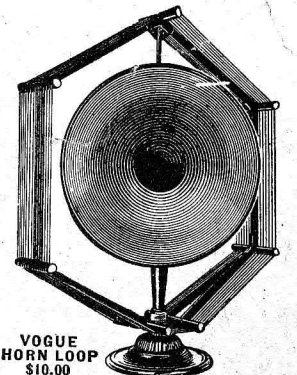
Doesn't take up any more space than the regular horn speaker—can't tip or fall—adjustable to every conceivable angle. If your Set isn't designed to work with an inside Loop, ask us how to change it over.

### Vogue Horn Loop

Fits any regular Horn Speaker—can be installed in a few seconds. No adjustments necessary—makes two units into one—fits snug around base of horn. 110 feet of 68 strand No. 36 silk covered wire used.

**Richard T. Davis**

Incorporated  
5255 BROADWAY CHICAGO



VOGUE HORN LOOP \$10.00

**10 Days Free Trial**  
This offer is for a limited time only. Send check or money order. If you aren't more than satisfied, return to us in ten days, and we will refund the full amount—provided, of course, the merchandise is received by us in good condition.



Fred W. Stein.

# Steinite Low Loss Interference Eliminator

No Radio Set Complete Without It

Select stations at will. With music and voices crowding the air the average set fails to bring in the desired stations properly. The Steinite Interference Eliminator shuts out local and other interference. You get one station at a time, the one you want, and tune in loud and clear. Operates on any set—attach to aerial wire and to set—no changes—no extra tubes or batteries. Greatest Dollar Value in Radio Today. OVER 300,000 SOLD

**Improved Results With Tube or Crystal** Try entirely at my risk the wonderful improvement this inexpensive little device will make in the reception of your set. Improves results on both crystal and tube sets that use any kind of aerial except loop antenna. Clears up reception wonderfully, increases volume, and partially absorbs static. **MONEY-BACK GUARANTEE.**

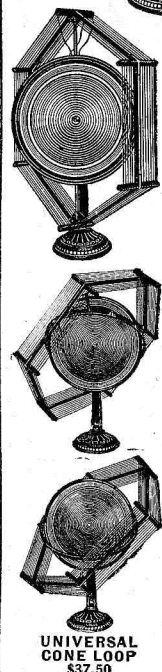
Mrs. Famous 1,500 Mi. Steinite 1-Tube Set, \$6; Long Distance Crystal Set, \$6; Steinite Crystal 50—3 for \$1  
**STEINITE 5-Tube Set—\$29.75**  
FREE Descriptive Literature on request.

Put this interference eliminator on your set and note amazing improvement. No tools needed—install in a moments time. Connect with set and follow simple instructions. Money back promptly if not delighted. \$1.00 postpaid anywhere in U. S. when cash with order.

References: Exchange National Bank, Atchison Savings Bank. Order today—a dollar bill will do.  
**STEINITE LABORATORIES, 161 Radio Bldg., ATCHISON, KANSAS**



**\$1 Postpaid** If you are not delighted with results you get your dollar back



UNIVERSAL CONE LOOP \$37.50

### SUPER-TORODYNE BINDING POSTS

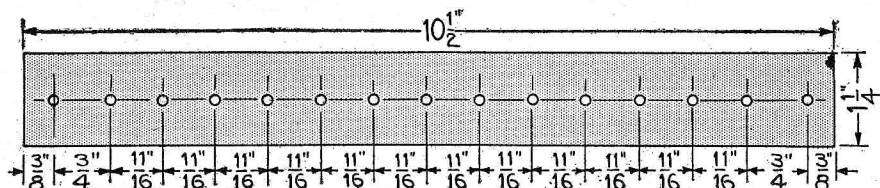


Figure 6

### NEW SUPER-TORODYNE

(Continued from page 19)

front except in the case of tube sockets Nos. 4 and 8. These have the grid and plate connections toward the front, with the filament connections, toward the back. Tube socket No. 6 is for the audio detector and should be a Bremer-Tully Silent Socket as specified in the list of parts.

#### Functions of Controls

Considering the parts on the front panel, and comparing figure 1 of the first article with figure 3, the control at the left is seen to be the first detector regeneration control. It should be mounted with the stator insulating support to the right, remembering that the view is still from the dial side of the front panel. The next control, the National Velvet Vernier dial, is for one of the Hammarlund .000375 mfd. s.f. condensers, which tunes the antenna circuit. The next control is

the Victoreen 400-ohm potentiometer. This is followed by the National dial, controlling the oscillator condenser. This condenser tunes the local oscillator circuit and is connected to the toroid coil at the right. Both of the Hammarlund s.f. condensers should be mounted in a vertical plane as is shown in figure 3. Two 1/16-inch holes are to be drilled in the front panel for the purpose of anchoring each of the National dials. Complete directions for doing this are furnished with the dials. Single-hole mountings for the condensers should be used because some slight adjustments in the position of the condenser are necessary after the set is assembled. The control at the extreme right is the Benjamin battery switch.

(Next week Professor Owen will continue with the assembly of the Super-Torodyne and will take up the wiring of the receiver. As accuracy is the keynote of this construction, it may be well to wait before proceeding.—Editor's note.)

### PENSACOLA WELCOMES

(Continued from page 4)

"But it's great to live in Pensacola," says Mr. Frenkel to his Radio audience. "No city in the world compares in historical interest and romantic tradition. It is the oldest city in the United States. Our records show that it was founded four years before St. Augustine, more often spoken of as the oldest city on the continent. It has lived under the regime of five flags, Spanish, French, British, Confederate and the Stars and Stripes—Old Glory.

"Pensacola has an eminent social atmosphere, a prestige unsurpassed by any other city in the country. The climate is perfectly enjoyable to citizens from the North, throughout the whole year. It has lakes and hills and trees and old roads, providing scenic beauty and charming tours for motorists."

It's a labor of love, folks, and if you ever have heard the breezy enthusiasm in the voice John E. Frenkel over WCOA, Pensacola, Florida, the Wonderful City of Advantages, you know it.

### WOAW AIDS FRIENDSHIP

(Continued from page 5)

deeper than mere fundamentalism or modernism in religious belief.

The fraternal message is thus given wide scope from WOAW through its amplification of the religious services. Religion and human felicity, human moral growth, go hand in hand; hence, the strong support to the church rendered by the executives of the Woodmen of the World. It has been found that Radio does not conflict with church going, but rather, tends to revive it, to return to the fold many who had been lost lambs.

More than twenty persons compose the staff and its attaches of WOAW. Their sole duties are confined to arranging programs, Radiocasting them, handling fan mail, etc. Three announcers, two operators, a studio hostess, publicity director, program director, four stenographers, five typists, a business manager, phone girls, make up this staff.

Lester Palmer is program director and

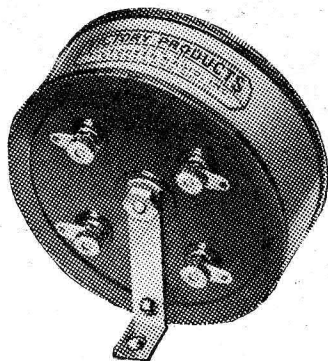
announcer. He is a talented pianist and composer of several popular songs recently published, "Lonesome Moon," and "Truly I Do." He edits the WOAW Radio bulletin, a bimonthly journal which contains programs two weeks in advance, as well as descriptive stories and photographs of artists who are on the programs. Ten thousand copies of this bulletin are mailed each month to newspapers, public institutions, and Radio artists. Mr. Palmer is a student of law, and the youngest Shriner in Nebraska.

Eugene Konecky is featured as WOAW's poet laureate and announcer. He was the first official poet laureate connected with a Radio station. He is well-known in the Middle West as author of "Trail O' Spring," a volume of poems.

Gus Swanson, announcer, is a very versatile chap, and in the 35 years since his first announcement he has had a varied career. He has had six years' experience in the selling and advertising game, and is at present engaged as a salesman in the printing and publishing line. His musical and commercial career have adapted him perfectly for Radio work, giving him poise and confidence in his microphone work. He is quick witted, congenial and well versed in music and other arts which combined with his ability to entertain and his excellent voice makes him an ideal announcer.

The bedtime stories for the kiddies, are handled by Grace Sorenson, author of juv-

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enile stories, poems and plays and editor of a nationally-known children's publication.

Among the special features are Arthur Hays, organist of the World theater, offering organ recitals at 11 o'clock each Saturday; the Rialto Midnite Alarm, a Tuesday fun fest; Hodek's Nightingale orchestra of the Roseland Garden in a mid-night frolic each Thursday. The presentation of stock market reports are made daily from WOAW in behalf of the thousands of agriculturists throughout the Middle West. The periods of Radiocast of market reports are as follows: 8:15 a. m.; 8:55 a. m.; 10:30 a. m.; 12:30 p. m.; 1:45

### Radio Club Notes

Thanks, Mr. Fernald, (whose home town is Baltimore, Md.) Now that others will read of the fine personal work you are doing, many of our Radio club members no doubt will follow suit. Which is but another way of introducing a listener whose interest in Radio is such that he addressed letters to some fifty of his neighbors upon the subject of "Blooping" and offered to help them "keep the air clean."

Arthur C. Zellner, Radio editor of the Janesville (Wis.) Daily Gazette, opined that a few might join if he suggested a Radio club, not realizing that most of Janesville's Radio population would come to his party. But they did and the SRO sign went up early in the evening. High spots were the talks given by Mr. D. J. Marcus and Thomas Hefferan, while the blue ribbon was voted to the Wisconsin Light and Power company, when the manager, Mr. W. R. Schmedley, mentioned that his company stood ready to stand back of any move which would make for better Radio reception, and to prove it said, "We will replace, at our own expense, any apparatus in our plant that is found to be the source of interference."

Out where the West begins—Cheney, Washington, to be exact, is the headquarters for a live Radio club. Leon Swank is president and Thomas Smith, secretary-treasurer. Just to be sure that they would get started off on the right foot, James S. Lane of the normal school faculty has the pledge of the club members that they will attend a regular course of instruction, which Mr. Lane will conduct. If you know Radio help your club as Mr. Lane is doing.

Sylvania Radio club of Allentown (Pa.) is so ambitious they have gotten out a new and complete Radio call book with an information encyclopedia compiled by, for, and of average Radio listeners. Other clubs desiring more information on this subject can write to Joseph E. Yeager, 1236 Gordon street, that city.

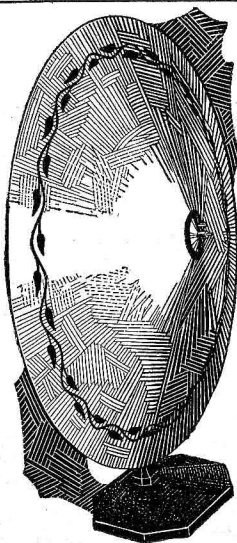
### DO YOU KNOW WHERE THESE PEOPLE LIVE?

TWO contributors to Radio Digest have checks awaiting them if they may be located. Letters bearing their addresses have been returned. The two men are Allan Murphy, of Paducah, Ky., and Marvin Shreffler, of Kankakee, Ill. Friends knowing their proper addresses will please correspond with the Technical Editor, Radio Digest, 510 N. Dearborn St., Chicago.

p. m., and 4 p. m. Among the leading orchestras who entertain WOAW listeners are Gilbert Jaffy's Symphonic; Randall's Royal; Herb Feierman's Omadala, and Frank Hodek and his Nightingales.

All WOAW programs are varied, planned to appeal to a diversity of tastes. Orchestras, vocalists of popular, jazz and classic schools, instrumental soloists, dramas, sports talks, love advice, educational courses, etc., are on the programs at all times. You can't please all the people all the time, but the Woodmen of the World, through WOAW, is pleasing all the people part of the time, and putting across a dignified, significant message of fraternalism and religious worship at the same time.

The Zurich, Switzerland, station, which up till now used but 500 watts power, has been increased to 5,000 watts. The installation is already provided.



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Why pay \$35 or more for a cone loud speaker when you can easily assemble a splendid super-sensitive one at home with the complete parts we send you—and save \$25?

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Send No Money

Simply send name and address and the complete outfit will be sent you by return mail. When postman brings package, deposit with him only \$10.00 in full payment. If you aren't more than delighted—if you're not absolutely convinced that you have a cone speaker

equally as fine as any \$35 cone sold—simply return the parts within ten days and your money will be instantly refunded. Never before has a better radio bargain been offered. You would pay at least \$35 for a cone speaker of equal quality anywhere. Act at once. Write NOW!

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The National Cycle and Radio Company, 605 East Fourth Street, Amarillo, Texas.

Gentlemen:—Ship at once ONE MARTIN WAVE SPREADER. I have Radiola Model..... It is understood this will improve turning on low wave stations or my money, less transportation charges, will be refunded if spreader is returned in ten days. Money order for \$9.80 is enclosed. Yours truly,

# How to Stop Blooming and Man-Made Static

## Part X—Receiver for Locating Interference

By The Technical Staff

IT IS obvious that no intelligent attempt toward the elimination of interference can obtain until a study is made in order to determine its character, as well as its location. Very often such a survey will point the way in which the offending media may be most easily remedied.

To illustrate this point, the writer desires to mention a particularly difficult case which he was called upon to assist in eliminating, as an example of peculiarities which are, at times, almost ridiculous once the offending medium is discovered. The case in mind had to do with an alternating current hum which insisted upon appearing upon a given evening each week, but was absent at all other times, the noise being so loud and continuous that it was quite impossible to operate the receiver. So far as was possible, without employing a loop directional test, both the receiver and its wiring, including the antenna and lead in, were not at fault. The immediate neighborhood did not reveal any devices which could be blamed for any such noise of this character. It was evident that the unusual was taking place, but how and from what source of supply was an entirely different story.

In near desperation, an inspection of the house wiring was decided upon. Upon entering the kitchen, which was adjacent to the room in which the receiver was located, the first object to greet the writer's eyes was the wife of the home busily engaged with her weekly ironing. Turning off the electric iron proved conclusively that we had found the cause of the trouble, it being apparent that, as it was very close to the receiver and only separated by a partition, in operation it was influencing the inductances of the receiver.

While many types of circuits which will operate from a loop may be designed and constructed in portable form, as an assistance to those who may not have a suitable circuit, this article describes a type of receiver that has proven very satisfactory in locating interference. Two illustrations

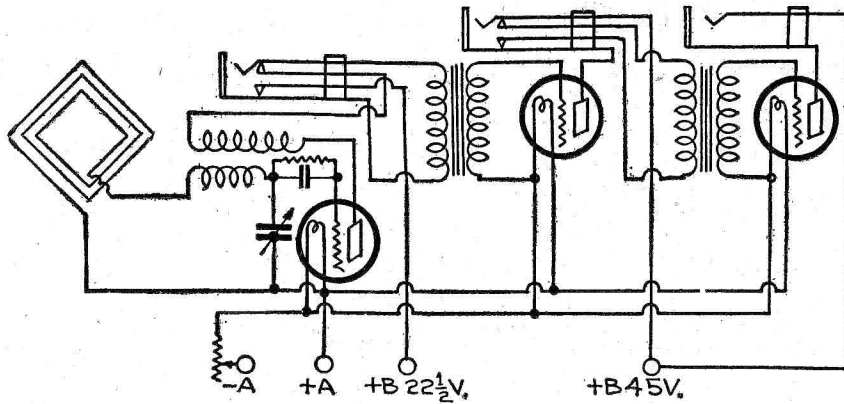


Figure 19

are shown, one of the circuit, the other of the completed receiver. It should be understood that in following the circuit, it is not essential that it be mounted as shown in the completed receiver, this photo merely being offered as but one of many arrangements which may be constructed, and possibly more elaborate than would be desired by many.

The specifications for a receiver following the diagram shown are as follows:

The loop is pancake wound, the outside turn 22 inches square, the total turns to be 14, spaced 3/8-inch apart. The plate coil consists of 50 turns of number 26 dec., wound upon a 3 1/2-inch tube of Formica. The grid coil is composed of 40 turns of number 26 dec., wire wound on a 3-inch tube. The tuning condenser should have a maximum capacity of .0005 mfd. and be of the straight line frequency type if possible, although a straight line wave length type will work reasonably well. It is highly desirable that a noninductive variable grid leak with clips for the mounting of a .00025 mfd. fixed condenser be used with this circuit, as at times extreme sensitivity is required for the operation of the detector. Such cases require

a leak which may be varied from 1/4 to 10 megohms in order to secure best detector operation.

As the three tubes are controlled from one rheostat, the resistance value required will vary in accordance with the type of tubes used, while possibly the best practice would be that of using one whose resistance would be sufficient to control all ordinary types of tubes, thus eliminating the necessity of changing the rheostat in the event of one desiring to change from "A" type tubes to 199's.

Your attention is called to the wiring arrangement of the first jack which varies from the usual method in that it is connected in such a manner as to provide audio amplification when it is desired to use auxiliary apparatus in connection with current variations or audio frequency only.

The question will arise as to whether it is desirable to shield this or other types of receivers which are to be used for the

location of interference, and, at first thought, such a practice would seem advisable. It however is apparent that as the loop must of necessity be exposed it would be quite nonessential to shield the receiver, while in many instances interference caused through, or by, some extreme leak is quite readily picked up and located without having to resort to the use of the loop.

In constructing this or other receivers for this purpose, the same construction rules that direct the building of a high-class receiver for broadcast reception should be followed. Grid leaks should be run as direct and short as possible. Plate leads should be at right angles to the grid leads, if possible, and well apart from them. The by-passing of both the A and B batteries should have one's consideration, while the cabling of all low potential wires adds materially to the all around efficiency of the completed receiver.

As the receiver in question is to be of a portable type, sponge rubber should be used underneath the socket mounts or sockets which are designed to compensate for the mechanical vibrations incident to the use of the receiver.

The assistance of such members of Radio clubs as will earnestly try to locate sources of interference and report them to the individual in charge of all interference activities, is strongly urged. Much assistance will be required, and of a character which will studiously avoid the personal element which is so disastrous to successful progress.

In the experimental group of broadcast listeners, the habit of tinkering with the receiver is all too common. Imaginary troubles pop up and usually at a time when signal strength fails for a day or so. The listener is often prone to blame his set, while generally the fault is chargeable to atmospheric. This is evident.

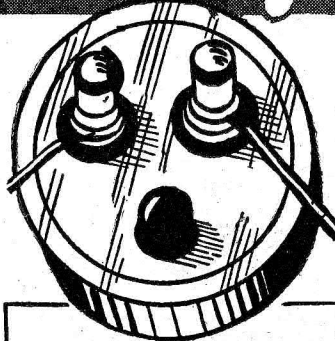
(Continued on next page)

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The Static Eliminator is sturdily made to give many years of perfect service. A simple, but effective device that hooks up to any make of set in 30 seconds. Complete, easy to follow directions included with every Eliminator. You will be amazed at the immediate improvement in your results. Mail coupon for your Eliminator now.

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You will be delighted with the results of this remarkable instrument. That's why we guarantee absolute satisfaction. Money back if Static Eliminator is returned within 5 days. Don't be without it another day. Begin at once to know the real joy of receiving all stations without interference. Mail this coupon with a dollar bill—TO-DAY!

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Gentlemen: I ENCLOSE \$1.00 for which please send me one STATIC ELIMINATOR as advertised. You will return my money if I return Eliminator in five days.

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"Am surprised at the wonderful results I am obtaining. I am now receiving stations with clearness that is truly remarkable."—Thos. C. Smith, 2582 Parve Ave., New York.

"Your Static Eliminator is a great help. It gives me a wide receiving range. Last night in less than one hour, I had about 15 different stations."—R. D. Smith, Box 365, Clermont, Florida.

"I like the Eliminator fine. I wouldn't sell it if I couldn't get another."—Burt W. Thompson, Homer, Mich.

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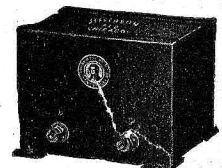
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## JEFFERSON A L Sealed Transformer



### Specified by Dr. Owen

Dr. Owen of Oklahoma University has selected the Jefferson A L Sealed Transformer for his new Torodyne circuit, described in Radio Digest.

Here are his reasons for choosing this superior transformer: (1), Nicety of balance, giving even amplification at low frequencies, and preventing resonant peaks at the higher frequencies. (2), Tests show a practically straight line curve from 30 cycles for the low notes up to 10,000 for the high. (3), Heavy insulation throughout, lowering resistance between the primary and core.

### Can Be Used with Power Tubes

(4), Can be used with the new power tubes. (5), This transformer is SEALED IN A METAL CASE, insuring protection against moisture and other outside influences. Ratio: 2 to 1; price \$6. Sold by leading dealers. If your dealer does not have Jefferson A L Transformers in stock, do not be satisfied with a substitute, but write us direct.

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Specialists in Electrical  
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from Telegrams:**

"Tested your RFL-60 within two blocks of local 500-watt broadcasting station, using twenty-five foot wire on floor for aerial. We picked up stations all over the country and when local station came in tuned it out and picked up WSAI at 319 meters. The local station is 270 meters. This is the only set ever tested under these conditions that would tune this station out at any point on dials."—Decatur, Ill.

"We tested one of your new RFL-60 sets here in our building using an antenna about 75 feet long and directly under and parallel with our transmitting aerial. The exceptional selectivity of the Crosley receiver permitted us to tune out our station WTAX, just as easily as we would tune out a Chicago station."—Streator, Illinois.

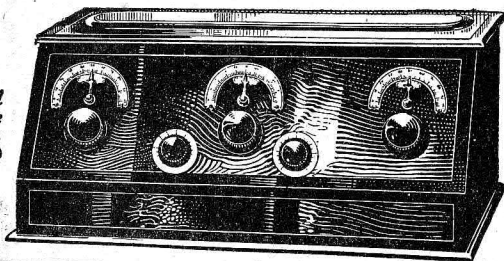
"An RFL-60 tested in competition with other receivers of much higher price proved its unquestioned superiority. The new Crosley models offer the greatest values on the radio market."—Kansas City, Mo.

"The Model 4-29 is classed with the Trirdyn Model 5-38 bringing in Pacific points with ample volume, using a Musicone. RFL-60 and 75 are very selective. Have separated distant stations on less than one degree on the dial. Have logged Mexico City and Pacific Coast Stations with plenty of volume."—Miami, Fla.

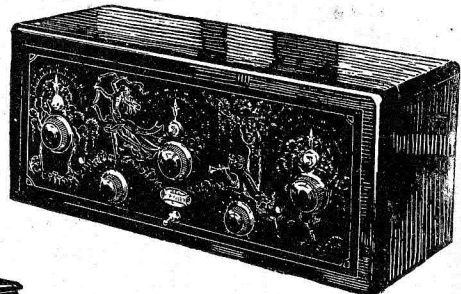
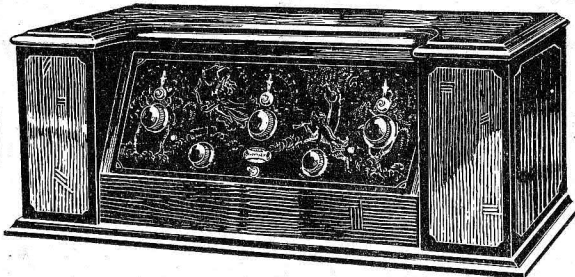
"The RFL sets outstripped much higher priced outfits. These sets bring in Canadian, Cuban and Mexican stations as easily as those on nearby states."—Glasgow, Ky.

What's the idea of keeping a fellow up all night foolin' around with that darned little 4-29? I've been in the radio game for seven years and was beginning to believe that there wasn't a set in the world that would keep me up late but when that little 4-29 started to pull in Houston, Texas and with such extreme volume I sat up and took notice. I got California station with unbelievable volume last night. KFI came in so loud that it could be heard over a block on a Musicone speaker. I've gotten over one hundred and twenty-five stations in only three nights. —Spring Valley, Ill.

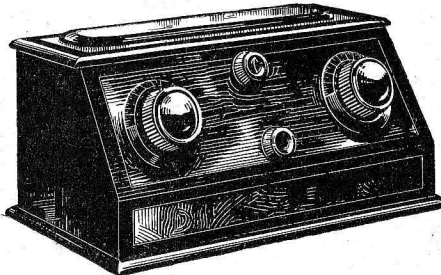
**The Crosley 5-tube—5-38**  
All the volume, selectivity and purity of tone available in the best 5-tube set—plus the Crescendon . . . **\$38**



**The Crosley 5-tube—RFL-60**  
A set of marvelous performance and beautified by the artistic decorative panel . . . **\$60**



**The Crosley 5-tube—RFL-75**  
Simplicity and speed in tuning, fidelity of tone and decorative beauty, enhanced by the art panel . . . **\$75**



**The Crosley 4-tube—4-29**  
in which the Crescendon is equal to one or more additional tubes of tuned radio frequency amplification . . . **\$29**

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