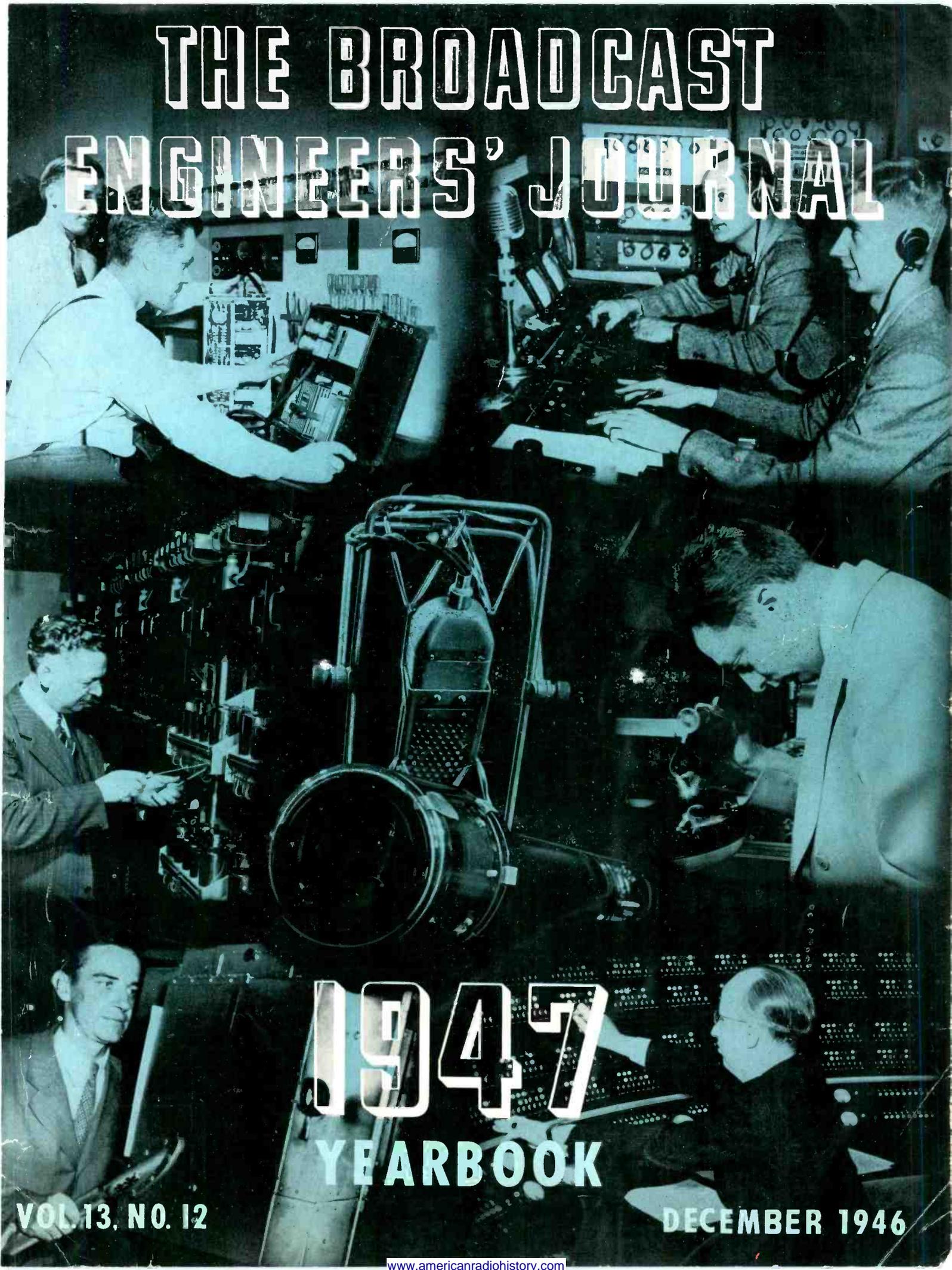


THE BROADCAST ENGINEERS' JOURNAL



1947

YEARBOOK

VOL. 13, NO. 12

DECEMBER 1946

A Major Advancement in the Recording Blank Field . . .

10 Year Guarantee

**GOULD-MOODY PROFESSIONAL QUALITY "BLACK SEAL"
ALUMINUM INSTANTANEOUS RECORDING BLANKS
AT NO INCREASE IN PRICES!**

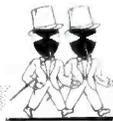
After prolonged research and experimentation, we have introduced technological improvements into "Black Seal" blanks that not only increase the life span, but materially enhance the other fine characteristics of these blanks. And so positive are we of the performance of these perfected "Black Seals" that we've placed an unconditional guarantee of ten years on each one of them.

What Does This Guarantee Mean to You?

It means that Gould-Moody "Black Seal" blanks will not rip up, disintegrate or powder after the first playing if kept in storage for any long period of time. It means that atmospheric conditions and changes, moisture and dampness, and old age will have no effect on blanks bearing "Black Seal" labels. It means that you'll be in no danger of losing valuable recordings in what, up until now, you have considered your safe library of recordings. And it means that you can expect the finest reproduction from the finest blank you have ever had on your turntable.

You Can't Afford To Be A Recording Isolationist

Whether you're a recording engineer in New York, Burbank or Wichita . . . no matter how well satisfied you are with your present blanks — you can't afford to be a recording isolationist now. Try these new Gould-Moody "Black Seal" blanks. Cut a few. If, for any reason whatsoever, you do not like them, you can return them at our expense.



**GOULD-MOODY'S PREFERRED RESHARPENING SERVICE
restores the point on your precious recording needle
SAPPHIRE! STELLITE!**

Exact workmanship assures lower surface noise and longer wear. In fact, needles and styli refinished by Gould-Moody are frequently reported to last longer than the original points. And the extreme accuracy with which that last 3/1000ths of an inch is shaped enables the needle to fit with microscopic perfection into the groove, thereby reducing record wear to minimum. This saving, in many cases, exceeds the cost of Gould-Moody resharpening.

THE GOULD-MOODY COMPANY

RECORDING BLANK DIVISION

395 BROADWAY, NEW YORK 13, N. Y.

from
N A B E T
PRESIDENT
A. T. POWLEY



EXTEND good wishes and Holiday greeting to the entire membership and friends of NABET with the hope that the coming year will bring you happiness and good cheer.

A. T. POWLEY

**Editorial: As We Go to Press
—or Do We?**

THIS was supposed to be the biggest and finest Yearbook in this journal's thirteen-year history. We wanted this Yearbook to be a monument to NABET and the broadcast industry.

But we have since learned that we might just as well have planned to visit the local grocery store with the expectation of buying five pounds of sugar. The similarity to a horse-laugh is disturbing.

At our November 14th deadline, we hadn't put our hands on enough white coated paper (the paper you are now looking at) to print a hundred pages; as we write this a few days later, another case of paper has come our way, and we may be able to run an additional twenty-five or thirty pages. For all this, thanks are due the New York trucking strike, and the shipping embargo that resulted. However, at this writing, the New York typographical union (along with Chicago, Washington, etc.) has cancelled its printing contract(s) and we have stuck our neck out and have gambled that we can salvage some of the effort and preparation that we have put into this Yearbook. We are going to limit our hopes to getting about 128 pages printed before the expected printers' strike crashes down upon what is left of our Yearbook.

In consideration of the tenseness of the general situation, we have pared to the bone each of our departments. Planned were eight excellent technical articles, among them the latest microphone data, a couple of humorous stories, dozens of cartoons, and most important, a cataloging of our well-wishers on the other side of the microphone, in a veritable Who's Who of Radio Artists. To fulfill our plans, this Yearbook would have run about 300 pages. Through no fault of our own, we have been forced to hold back almost all of the technical material, which we can salvage and use in later issues, and the important "Who's Who" section had to be dropped entirely.

We will breathe easier, if, and when, we get a finished copy of this Yearbook in our hands! Our plans were shot out from under us, but we do not regret the effort that went into the planning, nor do we apologize for this necessarily (jg) version of what was planned.

—Ed. S.

Our Yearbook Cover

The central theme shows the very latest developmental microphone used at television station WNBT, suspended directly over the modern miracle—the image orthicon television pickup tube.

The microphone weighs but seven ounces, permitting much greater deftness in microphone boom manipulation; its special directional and frequency characteristics greatly aid in the rejection of extraneous off-stage studio noise.

The light-sensitivity of the image orthicon tube is so great that outdoor events such as baseball games that are called due to darkness, continue to be seen via this uncanny pickup tube without perceptible impairment of brilliance, contrast, picture noise, or entertainment value.

These developments are rapidly bringing closer the day when the television industry will be self-supporting.

The surrounding photos show representative broadcast, recording, and television engineers in action; their methodical thoroughness, dependability, and love-of-radio has made possible the legend and tradition that is so completely expressed in the terse phrase—

Broadcasting continues as usual.

—ED STOLZENBERGER, Editor

THE BROADCAST ENGINEERS' JOURNAL

Ed. Stolzenberger Editor and Business Mgr.

Editorial, Advertising and Circulation Offices:
116-03 91st Avenue, Richmond Hill 18, N. Y.
Telephone: Virginia 9-5553

Volume 13, No. 12  December, 1946

Contents Copyright, 1946, by NABET Publications

TABLE OF CONTENTS

	Page
Editorial: As We Go to Press, or do we? . . .	2
Radiosonde	6
What's New?	12
Recording Photomicrographs	15
Television Broadcasting Stations	16
NABET National Council Meeting, Denver	20
New York News	47
The Whale that Got Away	55

(And many more . . .)

THE BROADCAST ENGINEERS' JOURNAL
OFFICIAL PUBLICATION OF THE N.A.B.E.T.

Trustees: A. T. POWLEY, Chairman; C. L. BENNIS, R. R. DAVIS,
M. JACOBSON, W. L. PAYNE, G. RILEY

Treasurer H. E. HILLER

ASSOCIATE EDITORS

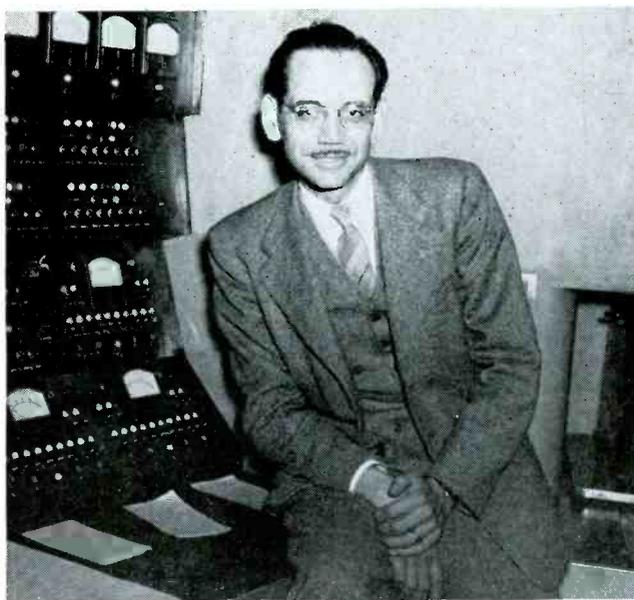
Baltimore	ALEC BEAUCHAMP
Boston	JAMES W. HUGHES
Chicago	D. R. FITCH
Cleveland	EARL HOLL
Denver	GEORGE POGUE
Detroit	DAVE STEWART
Dixie	D. GORDON McCRARY
Engineering Chapter	E. B. BERLUND, JACK IRVING
Hollywood	NORMAN DEWES
Hudson Chapter	PAT MILLER
Mohawk	J. W. GAGNE
New York	GIL McDONALD
Omaha	CY HAGRMAN
Philadelphia	
Pittsburgh	FRANK E. HENRY
Rochester, N. Y.	GEORGE WILSON, DONALD ANDERSON
San Francisco	KEN MARTIN, JACK VAN WART
Washington	L. A. McCLELLAND

The Broadcast Engineers' Journal is a privately printed monthly publication issued by NABET Publications. Address all communications to Publication office: E. Stolzenberger, 116-03 91st Avenue, Richmond Hill 18, L. I., N. Y. Telephone Virginia 9-5553.

Advertising rates and information supplied on request. Subscription, \$2.50 per year; \$4.00 for two years. Single copies, except Christmas Yearbook, 36c; Christmas Yearbook, \$1.00. All remittances in advance. Foreign: add postage. Back copies 50c, back Yearbooks, \$2.00.

Nothing appearing in The Broadcast Engineers' Journal shall be construed to be an expression of The Broadcast Engineers' Journal or the National Association of Broadcast Engineers and Technicians, but must be construed as an individual expression of the author or authors.

NATIONAL N.A.B.E.T. OFFICE
Room 501, 66 Court Street, Brooklyn 2, N. Y.
A. T. Powley, President



A Message from
James H. Brown
Vice-President, NABET

The growth in the effectiveness and prestige of NABET has been a source of satisfaction to all personnel in the radio broadcasting field, NABET members and non members alike. I am glad to have the opportunity through this journal to wish everybody connected with the radio and television industry a very merry Christmas and a prosperous New Year.

JAMES H. BROWN

National Association of Broadcast Engineers and Technicians

The only Union that is 100% Of, By and For the
BROADCAST ENGINEER



Attention Broadcast Engineers!

- NABET is a dignified union worthy of your support.
- NABET is an effective union, Of, By, and For the Broadcast Engineer exclusively, operated upon and dedicated to the principle that every member has a right to know what is going on in the union's "front office."
- NABET is controlled by its members; they have the right to vote on all matters of union policy. As a NABET member, you would have the right to Okay any actions which your President might take.

Contact any of the following officers for further information

A. T. Powley, President
Harry C. Hiller
Nat'l Sec'y-Treasurer
66 Court Street
Brooklyn 2, N. Y.

James H. Brown
Vice President
6000 Sunset Boulevard
Hollywood 28, Calif.

C. A. Allen
National Representative
1240 N. Utah
Arlington, Va.

Charles L. Bennis
Apt. DA-2
117-14 Union Turnpike
Kew Gardens 15, N. Y.

Harold V. Brandt
P. O. Box 68
Brecksville, O.

Charles H. Colman
East Second Avenue
Parkesburg, Pa.

Reid R. Davis
18 Squirrel Hill Road
Roslyn Heights, N. Y.

J. Willard Dean
217 E. North Street
Raleigh, N. C.

Garland S. Dutton
3132 E. 17th Avenue
Denver, Col.

Charles Synder
106 Pembroke Street
Rochester 7, N. Y.

Roger C. Ellis
820 University Place
Grosse Pointe, Mich.

John H. Hogan
9312 Sudbury Road
Silver Springs, Md.

William Justin Flanders
2 Holly Street
Hingham, Mass.

C. Edward Jung
1405 Carswell Street
Baltimore 18, Md.

John R. McDonnell
252 Oakdale Avenue
Mill Valley, Calif.

Mark L. McGowan
4550 N. 41st Street
Omaha, Neb.

Don Morey
Apt. 26-A, 3 Circle Lane
Albany 3, N. Y.

Donald A. Muir
1200 W. Colvin Street
Syracuse 7, N. Y.

Walter L. Payne
68-07 Colonial Avenue
Forest Hills, N. Y.

Clyde M. Reed
363 Olancho Avenue
Brentwood, Pgh., Pa.

Frank C. Schnepfer
3508 West 97th Street
Evergreen Park, Ill.

NABET

Broadcast, Television and Recording Groups

(As of November 7, 1946)

Akron, Ohio	WHKK
Albuquerque, N. M.	KOB
Atlanta, Ga.	WAGA
Auburn, N. Y.	WMBO
Baltimore, Md.	WITH, WCBM, WFBR
Boston, Mass.	WBZ
Chicago, Ill.	WENR, WLS, WMAQ, WAIT, RCA Recording, Univer- sal Recording
Cleveland, Ohio	WHK, WTAM
Denver, Colo.	KVOD, KFKA, KOA
Detroit, Mich.	WUJ
Durham, N. C.	WDNC
Elmira, N. Y.	WENY
Fairmont, W. Va.	WMMN
Greensboro, N. C.	WBIG
Los Angeles, Cal.	KFI, KCCA
Louisville, Ky.	WGRC
Massena, N. Y.	WMSA
New York, N. Y.	WOR, WJZ, WOV, RCA Re- cording, Muzak, WNBC, WNBT, WBAM, UNBC- FM
No. Platte, Neb.	KODY
Omaha, Neb.	WOW
Philadelphia, Pa.	KYW, WFIL
Pittsburgh, Pa.	WCAE, KDKA
Raleigh, N. C.	WPTF
Richmond, Va.	WRNL, WLEE
Rochester, N. Y.	WHAM, WHEC, WSAY
Rockford, Ill.	WROK
San Diego, Cal.	KFSD
San Francisco, Cal.	KPO, KGO
Schenectady, N. Y.	WGY, WRGB
Springfield, Mass.	WSPR, WBZA
Syracuse, N. Y.	WOLF, WAGE
Washington, D. C.	WMAL, WOL, WRC
Watertown, N. Y.	WWNY

Head and shoulders above the crowd...



ADVANCE RECORDING BLANKS

Try them for truer, longer-lasting transcriptions!

Advance
Recording Products
Company

36-12 34th STREET • Stillwell 4-7837 • LONG ISLAND CITY, N. Y.

RADIOSONDE The Use of Radio in Predicting Weather

By Jordan McQuay

RADIO has come to the aid of meteorology—the science of weather forecasting—in an effort to provide more accurate long-range predictions.

War and post-war development has brought forth an ingenious radio system known as *Radiosonde*, whose primary purpose is the collection of data on the upper atmosphere by which is determined the weather here on earth.

Weather forecasting did not become a science until telegraph communications provided a means whereby observers and scientists in different parts of the world could acquire information on current weather conditions in widely separated localities and regions.

As the science of weather prediction progressed, it was found that the earth's weather was determined to a great extent by the activity of large air masses, several miles in thickness, moving in the upper atmosphere. Determining local weather and future weather at other localities depended upon the way in which these air masses interacted with each other.

But locating and keeping track of the air masses was a difficult undertaking.

Years ago when balloon ascensions were in vogue, manned balloons functioned as weather observatories. Later, unmanned "pilot" balloons were sent aloft and their movements followed through theodolites for velocity and wind direction at various atmospheric levels. Still later, kites were

Figure 1—The Radiosonde in Flight, transmitting weather data to the Ground Receptor.

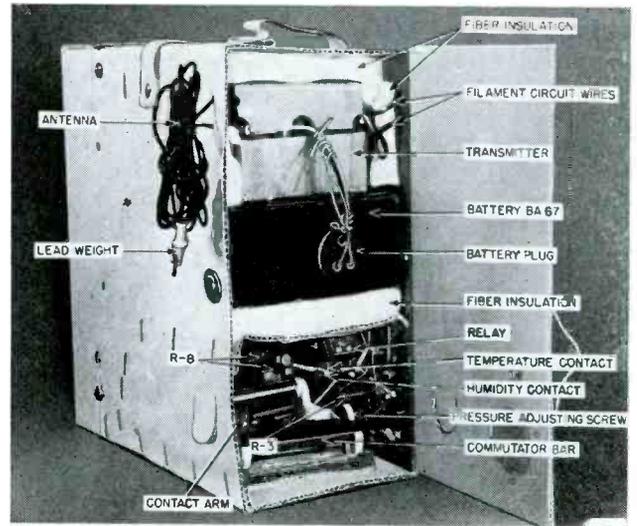
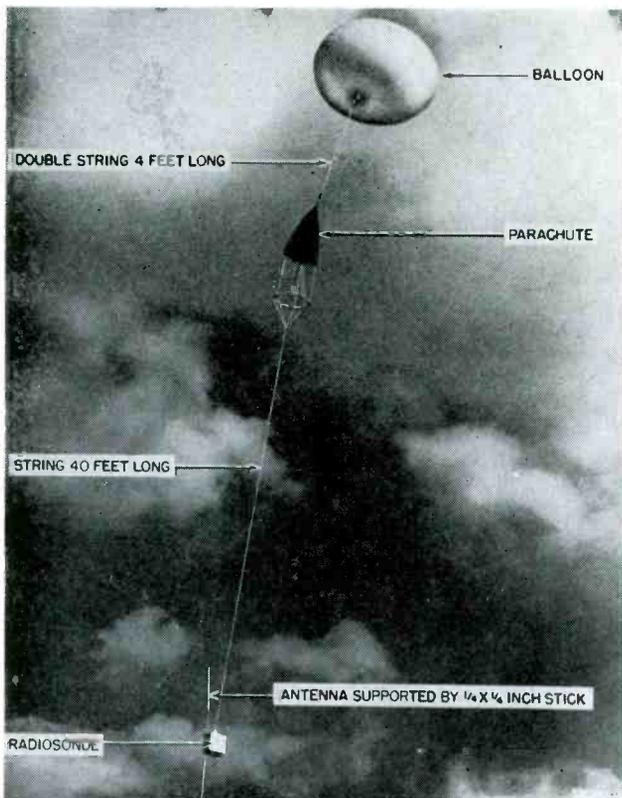


Figure 2—The Radiosonde transmitter.

used to carry the first crude meteorographs which attempted to make a printed record on tape of wind movement, temperature, relative humidity and atmospheric pressure.

Free balloons were also used to carry meteorographs. But one of the great difficulties encountered was that someone had to find and return the meteorograph after it had fallen to earth, so that it could be read and analyzed. Since weeks, or even months, might elapse before the information was returned, this method was useful only for leisurely research.

In 1934, weather observations were undertaken by the airplane. This proved superior to all other methods at that time. The problem of surface winds became negligible, existing airports could be utilized, danger from static charges was eliminated, and most important of all: an observer was with the instruments at all times, so that notes could be taken and observations made to supplement the record taken automatically.

However, as the need for better atmospheric data continued and, during the war, became acute,—this method proved inadequate: the planes could fly only in good weather, and meteorological data was limited to the altitude imposed by the airplanes' ceilings.

Weather experts and meteorologists knew the type of information they wanted, but they didn't know how to get it!

At the outbreak of war, weather prediction a day or so in advance was fairly reliable. But forecasting a week or more ahead was difficult and haphazard, and predictions a month or a year ahead then seemed impossible.

But the war intensified research in meteorology, as it did in other scientific fields: radar, radio, the proximity fuse, *et al.*

And the answer to accurate and long-range weather prediction was *Radiosonde*—or "radio sounding" balloon.

Actually the radiosonde is a meteorological instrument combined with a miniature radio transmitter and carried aloft by a 6 foot "pilot" balloon. The radio equipment

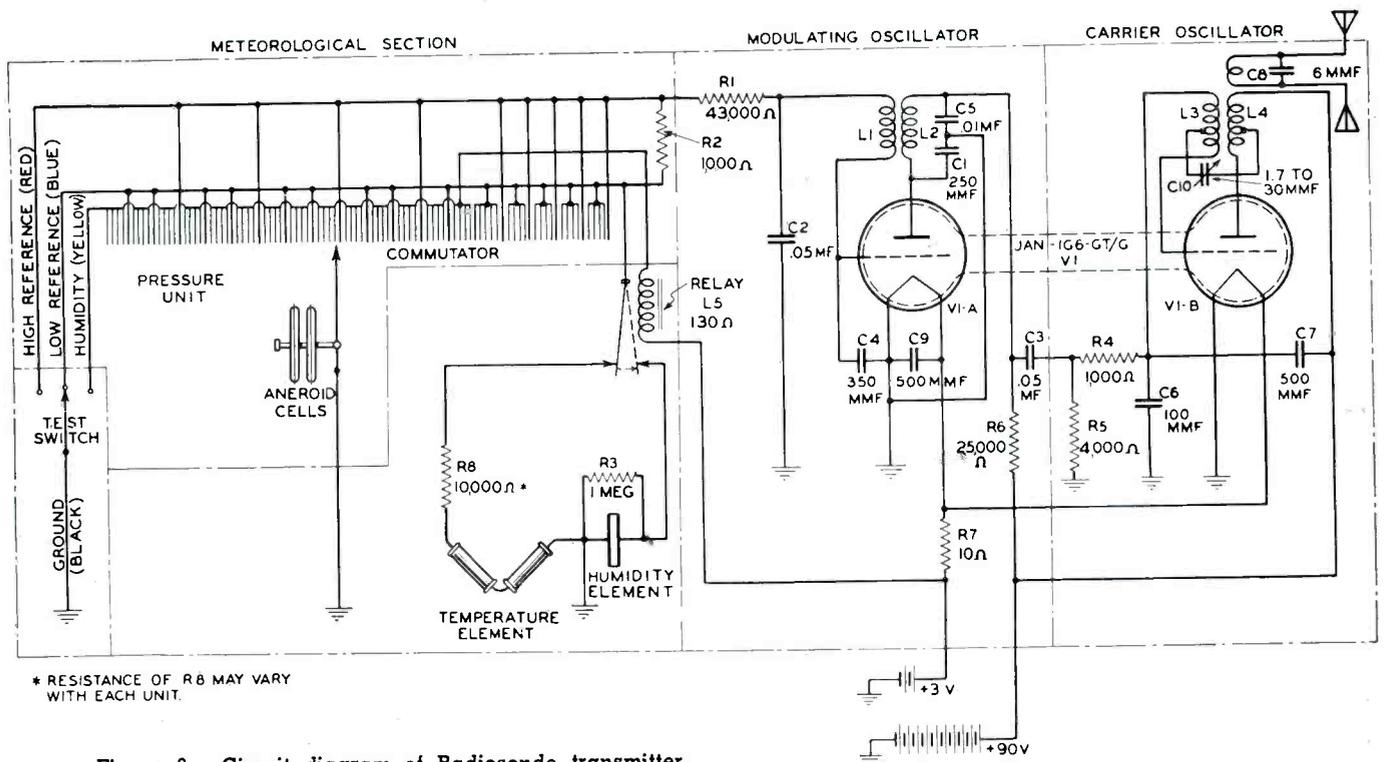


Figure 3—Circuit diagram of Radiosonde transmitter.

transmits signals to a *Ground Receptor*—or receiving station—from which may be determined the pressure, temperature, and relative humidity encountered by the radiosonde at any altitude up to twelve miles. There the “pilot” balloon bursts due to expansion (caused by decreased pressure at its ceiling). A small parachute is released, and the radiosonde descends slowly—continuing to transmit vital data from the stratosphere and troposphere. The slow descent also protects the radiosonde instruments, and allows some possibility of their recovery.

The complete radiosonde in flight is shown in figure 1, a view of the “pilot” balloon, parachute, and airborne radiosonde transmitter and antenna.

A detailed view of the radiosonde transmitter is shown in figure 2, and a complete circuit diagram of the equipment in figure 3.

Signals radiated by the radiosonde transmitter are controlled by meteorological instruments—and both transmitter and instruments are contained in a small cardboard box. The meteorological elements respond to various conditions of humidity and temperature as the balloon ascends, and this information is transmitted to the ground receptor (figure 4).

On the ground the information is recorded in chart form, as shown in figure 5.

The Radiosonde

The airborne radiosonde is an audio modulated system developed jointly by the Army, Navy, Weather Bureau, Bureau of Standards, the Bendix Aviation Corp., and other commercial organizations.

The system is based on the physical principle that certain materials have the property of changing their characteristics with changes in certain meteorological conditions. There is no mechanical motion involved, since the process is entirely electronic.

The radiosonde (figure 3) consists of three sections: the meteorological unit, a modulating oscillator, and a r-f carrier oscillator. The modulating and r-f carrier circuits are essentially standard in design and operation. But certain

elements of the meteorological unit have electrical characteristics which are affected by weather conditions, and these elements serve as resistors in an audio-frequency oscillator capable of producing frequencies from zero to about 200 cycles. These signals are then used to modulate the r-f carrier produced by the last stage of the radiosonde.

The humidity element is a plastic sheet resembling an elongated microscopic slide, coated with a saline solution, usually lithium chloride. It has electrodes running along each side to which circuit connections are clamped. As the humidity increases, the conductivity of the electrical path provided by the coating is increased, and the frequency produced by the circuit is increased.

The temperature element is a single ceramic resistor—about one-eighth of an inch in diameter, three inches in length—in the grid circuit of the audio oscillator. Value of this resistance increases as the temperature decreases. The element is not subject to polarization, and it is not influenced by changes in relative humidity or the presence of moisture.

The pressure unit of the meteorological section consists of one or two aneroid cells, which actuate a contact arm across a commutator as they expand—due to the reduction of atmospheric pressure as the radiosonde ascends. Function of the commutator is to connect *alternately* the humidity and temperature circuits with the modulator, and at intervals to connect high and low reference voltages. When the point of the contact arm rests on certain metallic segments, a relay switch is energized which connects the humidity element into the circuit. When it rests on an insulator segment (non-metallic contact), the temperature element is connected into the modulator circuit. Information regarding air pressure is determined by interpolation at the ground receptor station, and is not transmitted directly.

The modulating oscillator and the r-f carrier oscillator are small in structure, using simple circuits (figure 3). A single tube, a duo-triode, performs both functions. Types 1G6-GT/G, 3A5, or similar duo-triodes may be used with

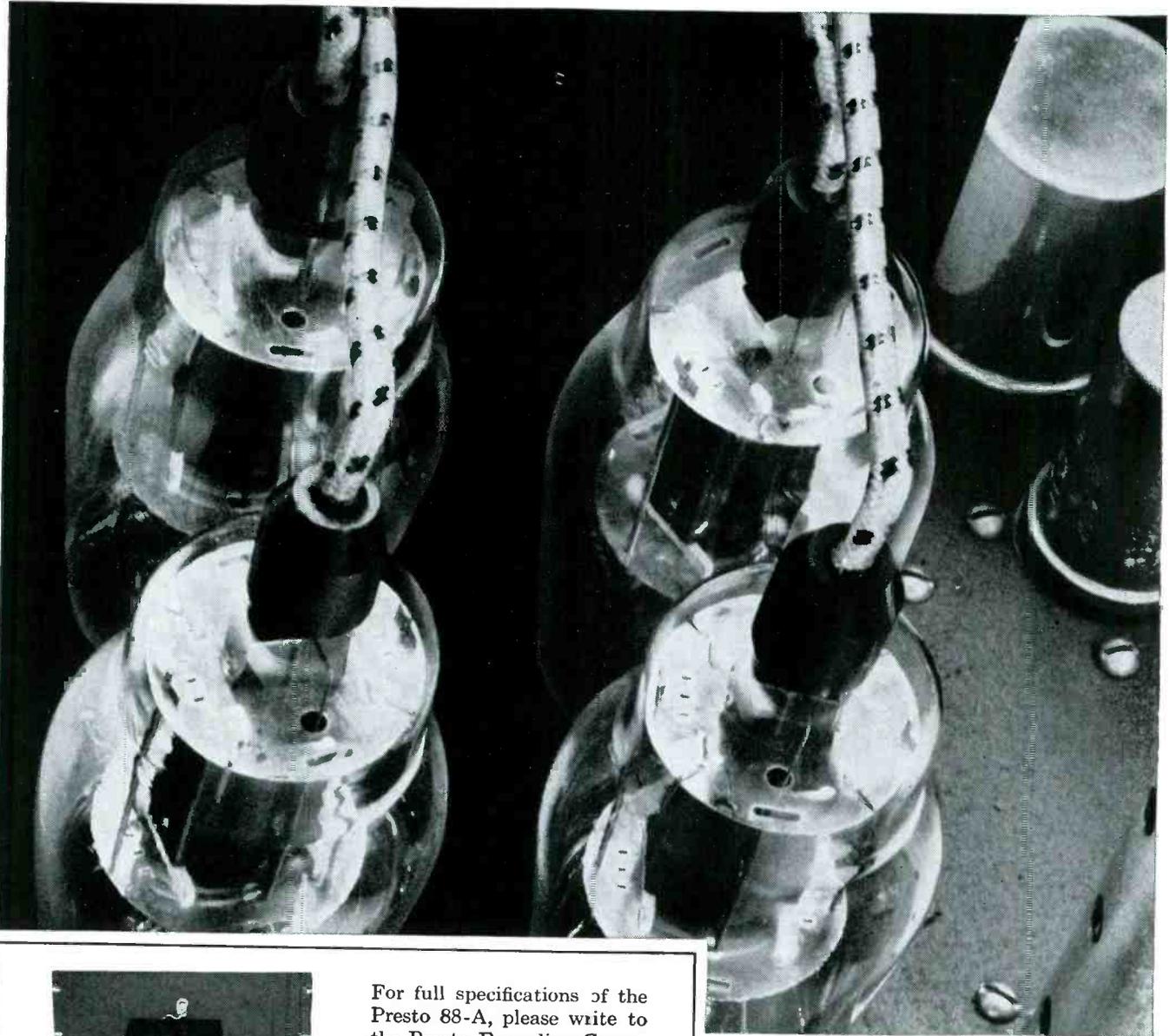
(Continued on Page Ten)

Four 807's Push-Pull Parallel

► The Presto 88-A is a 50-watt amplifier designed specifically to drive the modern wide range magnetic recording head, such as the Presto 1-D. Its very ample output stage—four 807's in push-pull parallel—provides adequate power at peak levels with a minimum of distortion. A selector switch provides a choice of:

1. Flat response 20 to 17,000 cycles per second, ± 1 db.
2. The NAB recording characteristic.
3. Rising characteristic for vertical recordings.

► The Presto 88-A is ideal for the most exacting recording requirements.



For full specifications of the Presto 88-A, please write to the Presto Recording Corporation, 242 West 55th Street, New York 19, N. Y. To insure future delivery within a reasonable time, we suggest that you place your order on our priority list since orders are considerably in advance of production.

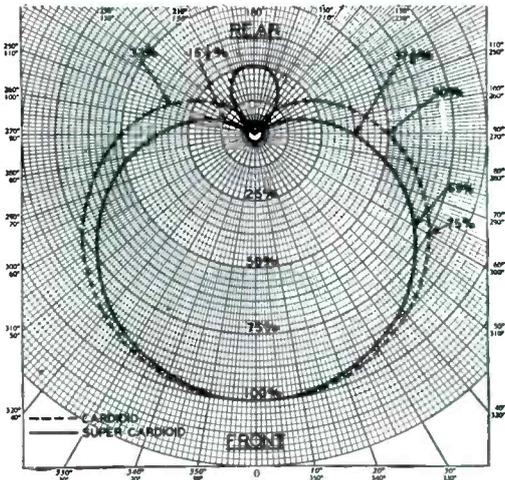
PRESTO

RECORDING CORPORATION

242 WEST 55TH STREET, NEW YORK 19, N. Y.

Walter P. Downs, Ltd., in Canada

WORLD'S LARGEST MANUFACTURER OF INSTANTANEOUS SOUND RECORDING EQUIPMENT & DISCS



... do you know these important performance advantages of the SHURE Super-Cardioid?

The improvement in unidirectional operating characteristics of the SHURE Super-Cardioid Microphone over the cardioid is indicated by the comparative pickup patterns shown above.

★ Maximum sensitivity (100%) is achieved by sounds entering the front of the Microphone.

★ A wide range of pickup is indicated by the fact that the Super-Cardioid is practically as sensitive as the cardioid at a 60° angle. (69% against 75%).

★ Beyond the 60° angle, the directional qualities of the Super-Cardioid become rapidly apparent. At 90°, the Super-Cardioid is 25% more unidirectional. At a wide angle at the back (110° to 250°) the Super-Cardioid is more than twice as unidirectional.

★ The ratio of front to rear pickup of random sound energy is 7:1 for the cardioid; 14:1 for the Shure Super-Cardioid.

For critical acoustic use, specify the Shure Super-Cardioid Broadcast Dynamic.

MODEL	IMPEDANCE	CODE
556A	35 ohm	RUDOM
556B	200 ohm	RUDOP
556C	High	RUDOR

List price . . . \$82.00

Patented by Shure Brothers

SHURE BROTHERS, Inc.

Microphones and Acoustic Devices

225 W. Huron St., Chicago 10, Illinois • Cable Address: SHUREMICRO



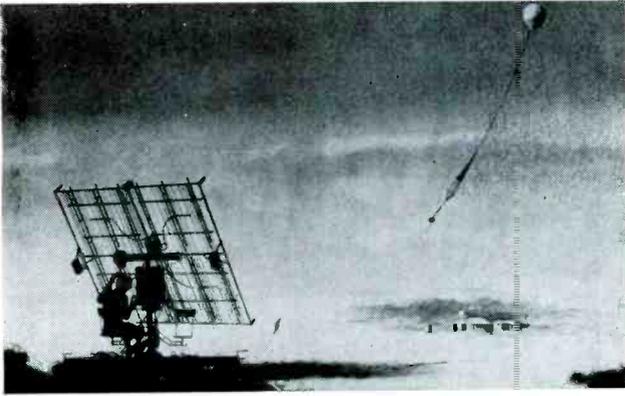


Figure (6A)—Ground Tracking Apparatus used with Radiosonde to determine speed and direction of high-altitude winds.

Tracking Apparatus

The traditional way of determining speed and direction of winds in the upper atmosphere is to observe a free balloon with specially designed telescopes or theodolites. Unless visibility is good, however, this method has an obvious limitation. And it has a further drawback in the human error factor: the observer's losing sight of the balloon before it is high enough to give vital data.

The need for accurately determining the speed and direction of winds at altitudes up to 100,000 feet led to the use of radio direction finding equipment in connection with radiosonde.

Such a device is shown in figure 6, together with a circuit diagram of the apparatus.

Primary purpose of the r-d-f equipment is to "track" the ascending or descending radiosonde by determining the angle of reception (both horizontal and vertical) of the signals transmitted by the radiosonde.

Because of the requirement of extremely high angular

accuracy, a directional radar-type antenna is used to receive the r-f signals. It can be rotated both horizontally and vertically, and provides directional data with an accuracy within 0.1 of one degree—in azimuth, or in the vertical plane.

The receiving circuit (figure 6) provides an impulse-image of the received signal in each of two antenna lobes. The two impulses are then compared in magnitude by means of a cathode ray oscilloscope. Any differences in the images can be adjusted for by rotating the antenna in either elevation or azimuth. When comparison proves the two images to be exact in magnitude, horizontal and vertical angular readings are supplied by simple computers synchronized with the actual antenna.

From this information the exact location of the radiosonde in space can be accurately determined. Any one reading will provide altitude information. Any two, or more, readings will supply data as to *direction* of movement of the radiosonde as well as *speed* of movement. Since any movement of the radiosonde and its balloon is influenced by prevailing winds, data on direction and speed of such winds is available for meteorological purposes.

In this manner, the Ground Tracking Apparatus *supplements* the basic information obtained and transmitted to earth by the radiosonde.

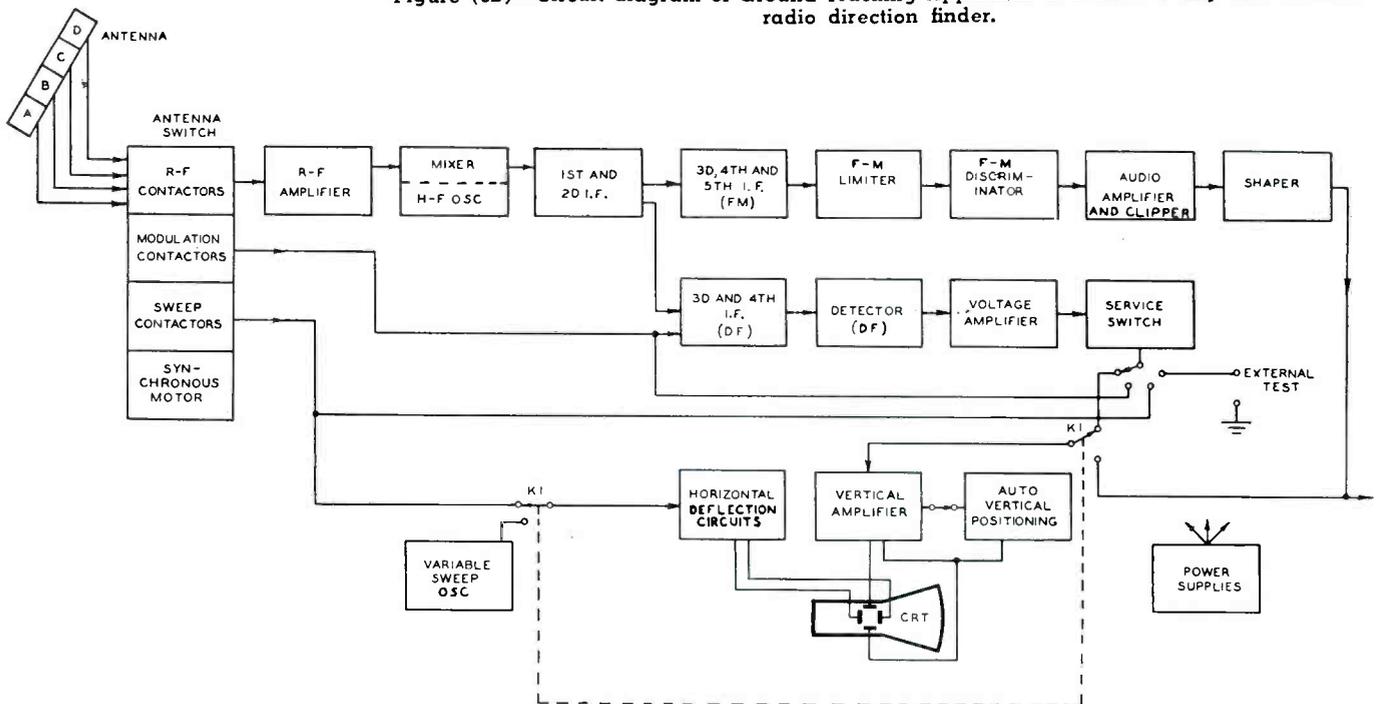
Radiosonde "flights" are made twice daily by the Weather Bureau, the Army, and the Navy at various localities throughout the world. In the United States such localities are spaced rather closely. Shore stations and ships at sea also send up radiosondes.

Each of these many stations plots his own data and that of surrounding stations as well, and information is exchanged between stations and central control offices.

Local data can be used to predict thunderstorms, cloud bases and tops, nearby cold and hot air fronts, and other local weather phenomena.

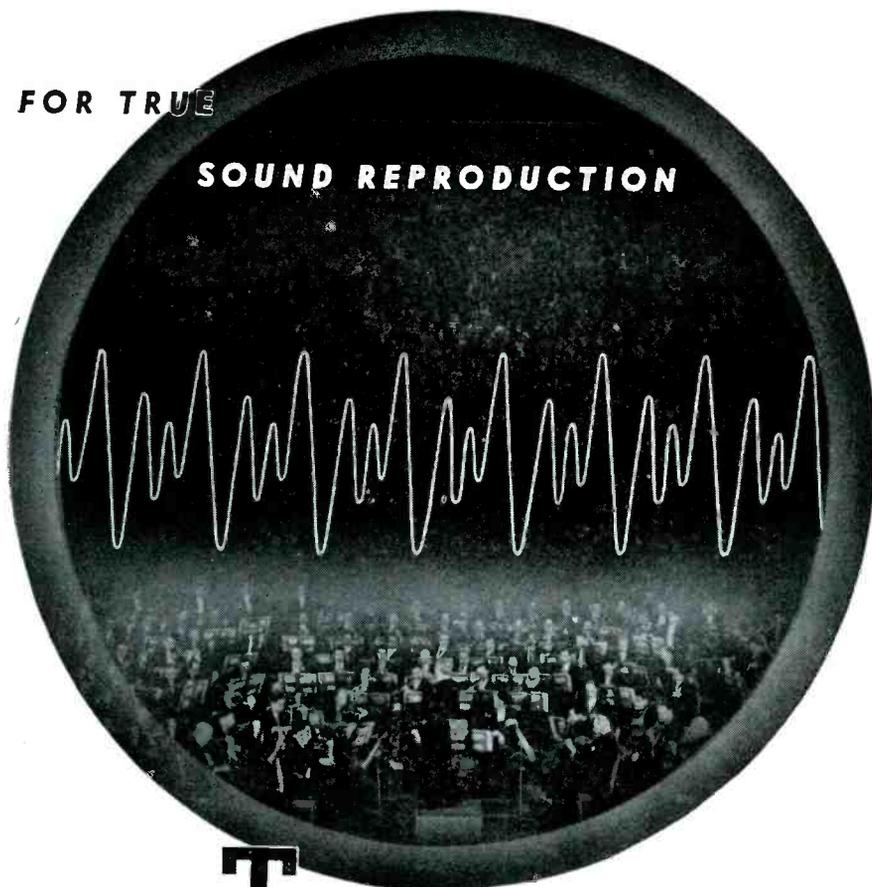
(Continued on Page Seventeen)

Figure (6B)—Circuit diagram of Ground Tracking Apparatus is similar to any conventional radio direction finder.



FOR TRUE

SOUND REPRODUCTION



TERMINAL

SPECIALISTS IN ALL HIGH QUALITY
SOUND EQUIPMENT

It's results that count and that's why the **TERMINAL RADIO CORPORATION** is the leading supplier to broadcast stations, recording studios, sound engineers and other users of high quality sound equipment.

Now Available for Immediate Delivery!

-  **PICKERING** Pickups, Equalizers and Preamplifiers. Pickering's is the **only** pickup which satisfies FCC standards for FM broadcasting. Acclaimed by top-notch sound engineers as the finest reproducer for lateral-cut phonograph records and transcriptions.
-  **ALTEC LANSING** Speakers, Cabinets and High Fidelity Amplifiers. Chosen by leading radio stations, motion picture studios and auditoriums, Altec Lansing is now available through the Terminal Radio Corporation to studios and high fidelity enthusiasts.
-  **RADIOTONE** Portable Transcription Two-speed 16 inch Recorders. Radiotone Hollywood's new improved portable recording equipment is probably just what you've been looking for. Now available in several models for high quality disc recording and dubbing.
-  **AUDIO DEVICES** Audiodisc aluminum and glass base Recording Blanks. **Audiodiscs** are high quality, precision-made instantaneous recording blanks which have won the praise of professional and amateur recordists. Designed for all high fidelity recording applications, available in sizes up to 16 inches.

As distributors for these and other high quality audio equipment, the **TERMINAL RADIO CORPORATION** can fill your high fidelity sound requirements.

Visit our Sound Studio to see and hear the newest equipment or write us for descriptive literature and prices.

TERMINAL RADIO CORP.

85 CORTLANDT STREET, NEW YORK 7, N. Y.

PHONE WORTH 2-4415

What's New?

By Jordan McQuay

A RADIO paging service has been authorized by the FCC. Service enables a subscriber to relax in a theater, ball park, or night club—and still know when he's wanted on the telephone. A small portable receiver, slightly larger than a pack of cigarettes, does the work—using miniature tubes and a tiny loudspeaker. Large number of relay stations transmit the "paging" calls. The rest is up to the subscriber.

Some 160 German scientists are now in the United States working on military projects involving captured German equipment, according to "inside information" from the War Department. Projects include rockets, buzz-bombs, jet-propelled planes, and radar.

The definition of a radio amateur, according to Bugs Baer, is a turnip who never does anything right for fear he'll lose his amateur standing.

Predicting a mushrooming use of the higher frequencies—by television, walkie-talkies, plane and train radio, navigation, and other electronic devices—the FCC recently announced that it plans to patrol the nation's air lanes with a brand new field engineering and monitoring division.

A revolutionary type of self-charging portable radio, which operates for 20 hours on a penny's worth of electricity, will soon be produced by General Electric. Price figure is in contrast with the two-cents-per-hour cost of operation of the standard dry cell battery portable.

New cardioid unidirectional crystal microphone marketed by Electro-Voice, Inc., uses a supplementary phase-shifting diaphragm. Sound from unwanted areas is phase reversed, slowed up, and neutralizes the sound pressure on the face of the actuating diaphragm.

If you straightened out the groove of an average 10 inch phonograph record: it would be one-eighth of a mile long.

A new reflex klystron designed by Sylvania, operates at a wave length between 6 and 7 centimeters. Output: 70 milliwatts.

Newest boon to aviation is radio and television Telemetering, which collects and transmits 68 different kinds of flight-data between plane under test and its ground recording station. System includes televising of cockpit instruments, transmitting information up to distances as great as 30 miles at 40,000 feet altitude.

Public utilities have been given access to radiocommunication services by a recent FCC ruling. Three new classes of stations have been authorized: power utility, transit utility, and petroleum pipeline. Previously, use of radio was restricted to rare emergencies.

The electronic newspaper, delivered through the air on radio waves, will be given a trial in more than a dozen metropolitan

Broadcast Engineers' Journal
Yearbook • December, 1946 **12**

centers early next year. Necessary equipment is now under construction by General Electric, believed to be the largest number of facsimile transmitters and receivers ever ordered.

A miniature metal electron tube weighing only 1/15th of an ounce has been developed by RCA Laboratories. Called the Vibrotron, it converts mechanical motion directly into corresponding variations in current flow. Will find wide application in future designs of phonograph pick-ups, microphones, and diminutive electronic apparatus.

Two manufacturers—Rauland in Chicago, Telicon in New York—are actively exploring the practicability of rectangular glass envelopes for cathode ray tubes used in television receivers. Reason: Only a portion of the present circular-faced tubes is usable for a rectangular picture screen.

Three manufacturers are now engaged in the development and production of u-h-f color television equipment: Federal Telephone and Radio, Bendix, and Westinghouse.

Radar continues to contribute to safety at sea. Equipment has been installed aboard all ocean liners plying the North Atlantic route, and skippers admit it's the only answer to fog, storms, and icebergs.

First demonstration of stereophonic broadcasting took place recently in Europe, transmitted by Radio Netherlands. And was proved highly successful by the press and listeners. Stereophonic broadcasts are dual broadcasts of the same program: using duplicate circuits from microphone to transmitter, each operating on a different wave length. For reception, two radio receivers are required—placed at right angles to each other. Result is a two-dimensional sound "effect" for the listener.

Sound waves sent into the Pacific Ocean off the California coast by Navy sonar devices prove the existence of a 300-mile wide oceanic layer—suspended between the ocean floor and the surface. Scientists are not sure what composes the layer. Only theory is that the sound-stopping layer consists of plankton: minute marine animal life.

Best protection against the powerful X-rays and other harmful radiations of uranium is, strange to say, a glass substance made from uranium. It is far more effective than lead. In post-bombing rescue work, uranium spun-glass garments and helmets lined with this special glass will permit safe entry into the bombed area. Even oxygen respirators will be equipped with uranium-glass insulation to keep radioactive dust out of the lungs of rescue squads.

Light measurement by means of microwaves has increased the accuracy with which the speed of light can be measured. The new and more accurate system will be of great interest to astronomers who ordinarily use the velocity of light to measure star distances.

Crystals of potassium hydrophosphate are now being used instead of natural quartz crystals for frequency control in radio transmitters manufactured by a firm in Switzerland.

Of the earth's 92 elements, more than one
(Continued on Page Fourteen)

Broadcast Engineers' Journal **13**
Yearbook • December, 1946

Unusual and Vital ELECTRONIC EQUIPMENT

PRODUCED BY

TECH LAB

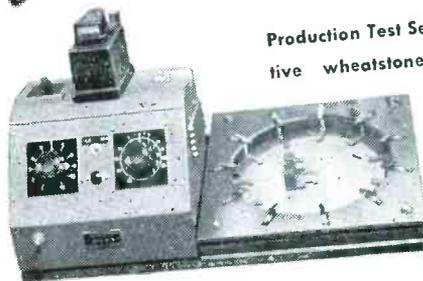
SUBCONTRACTING DEPT.



Special Short Wave Transmitter
Range: 1-16 megacycles on
one dial.

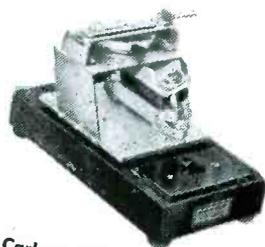


Development of special
hearing aid analyzer for
Western Electric Company.



Production Test Set to test varistors. A sensitive wheatstone bridge arranged with switching means for quickly checking a number of varistors in rapid sequence.

Manufacturers have continually called upon the modern facilities of Tech Lab Subcontracting Department to assist them in the production of unusual and vital electronic equipment. Our Engineering Department is ready to assist you with your production problems.



Carbon filling machines for
precision filling of carbon
microphones.



MANUFACTURERS OF PRECISION
ELECTRICAL RESISTANCE INSTRUMENTS

15 LINCOLN STREET, JERSEY CITY 7, N. J.

A

A



ALLIED

*The Name to Remember for
Quality in Recording Discs*

ORDERS SHIPPED PROMPTLY

ALLIED RECORDING PRODUCTS COMPANY

21-09 43rd Ave., Long Island City, N. Y.

Phone STillwell 4-2318

Cable: Allrecord, New York

What's New? (Continued from Page Fourteen)

third (35) are used in the manufacture of electronic tubes—a larger number of elements than is required by any other class of manufactured product.

Television studio heat may be completely eliminated by a new heat-absorbing, color-transmitting glass recently developed.

Programs in Braille for blind listeners are published by Saginaw, Michigan, station WSAM.

If a beat-frequency oscillator is needed and not available, a satisfactory substitute can be provided by removing the i-f tube shields of a superheterodyne receiver. If the set uses metal tubes, replacing one of them with a glass-type will usually produce the necessary oscillations.

A supersonic reflectoscope using sound waves to locate flaws in solid objects has recently been developed at the University of Michigan. It employs a quartz crystal covered with a film of oil to contact the object being tested.

A new germanium crystal diode, with a safe forward current of .05 amps and a safe back voltage of 60 volts for radio and television receiver and other equipment applications, has been announced by the Specialty Division of the General Electric Company's Electronics Department.

Feature of the new diode, which will serve as a rectified, modulator, detector or voltage regulator, is the point-to-plane contact between a micro-sharp platinum wire and the face of a specially-processed germanium crystal. G-E engineers say the new diode will handle higher voltages than any of its type.

Weighing several grams with a body length of twenty-three sixty-fourths of an inch and diameter of seven thirty-seconds of an inch, the high back-voltage germanium crystal diode furnishes an interelectrode capacitance of approximately .2 mmf and has a life performance of at least 3000 hours.

The new diode's low forward resistance and high back-to-forward resistance ratio is especially desirable for this unit's rectifier application. It will withstand an inverse voltage of at least 60 volts and return to normal after the application of excessive voltage.

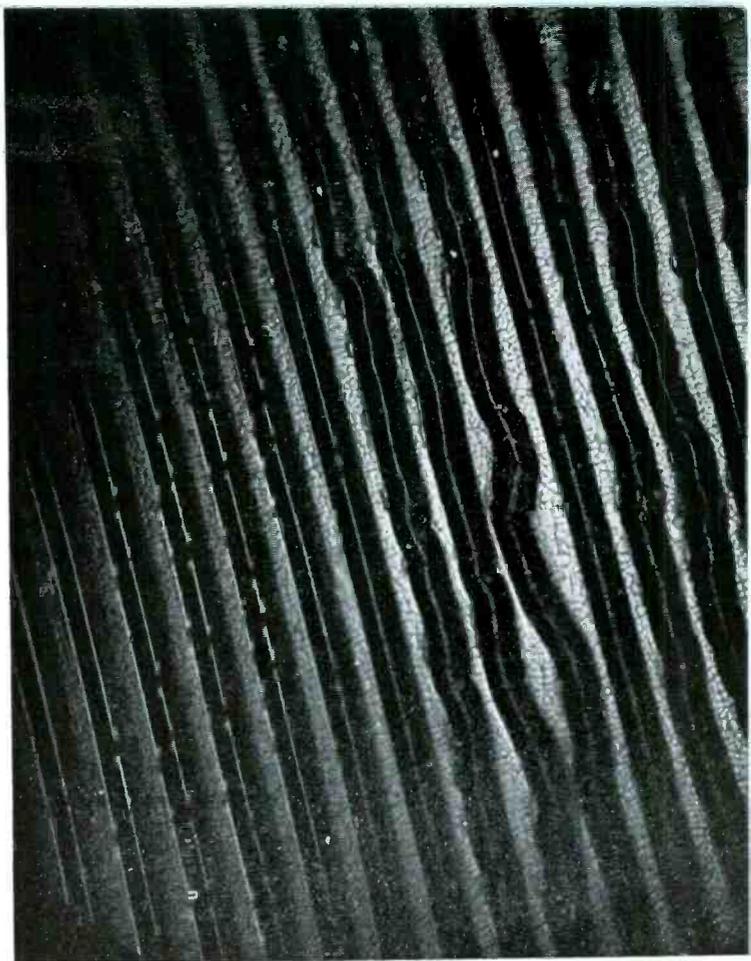
Its very low interelectrode capacity and high forward conductance permitting a low resistive load make the diode useful in FM and television applications. In addition, the property of relatively high back conductance upon breakdown lends itself to the possibility of its use as a voltage regulator.

Developed by the Research Laboratory of the company at Schenectady, N. Y., following wartime research with germanium, the new diode is reported to be extremely sturdy. Units have been dropped 10 successive times to a hardwood block from a distance of 30 inches without impairment of performance.

Further information on the new diode may be obtained on request to the Specialty Division, G-E Electronics Department, Wolf Street Plant, Syracuse, N. Y.



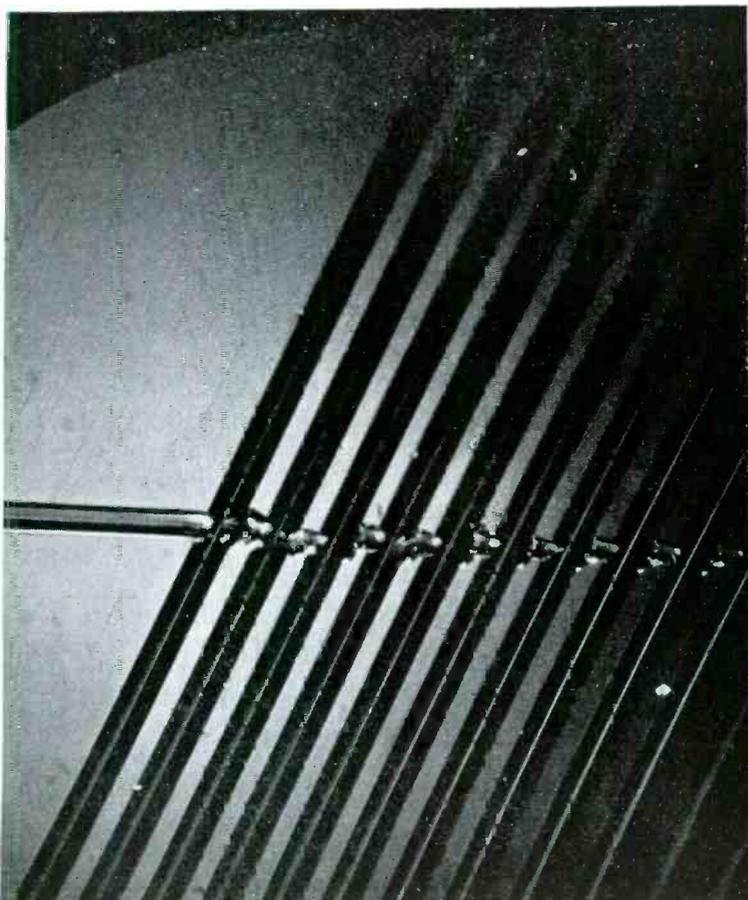
Normal cut (60% groove width, 40% "land" between grooves) with normal modulation. Average program material.



Excessive wear and reticulation of material. Standard Thesaurus Class "B." Note: Scoring of grooves and removal of high frequencies.

Photo Micrographs

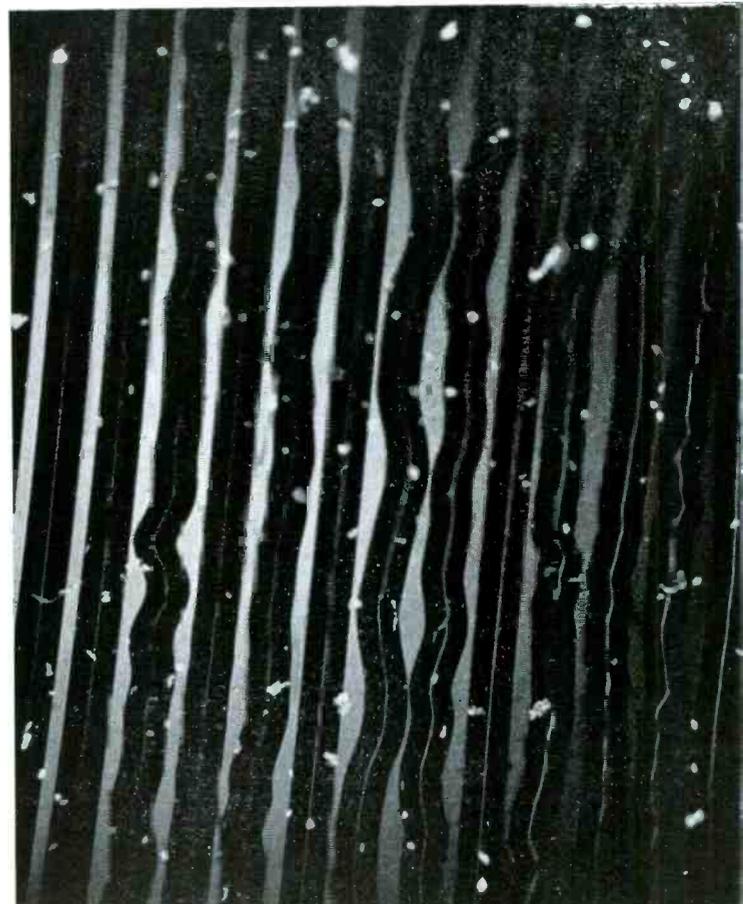
Scratch on freshly cut disc caused by playback head pushed into and beyond starting groove; light pressure.



By WARREN ANDRESEN

N. B. C. Engineering Dep't., San Francisco

Lint particles removed from wiping cloth by sharp groove edges of freshly cut disc.



Television Broadcast Stations

As of September 25, 1946

Name and Location	Call Letters	Frequency (mc)	Effective Peak Power Radiated Aural (Kk.)	Effective Peak Power Radiated Visual (Kw.)	Name and Location	Letters	Frequency (mc)	Effective Peak Power Radiated Aural (Kk.)	Effective Peak Power Radiated Visual (Kw.)
A. S. Abell Company Baltimore, Md.	WMAR	Ch. 2 54-60	17.1	17.1	KSTP, Inc. St Paul, Minn.	KSTP-TV	Ch. 5 76-82	6.48	13.68
Albuquerque Broadcasting Company Albuquerque, N. M.	KOB-TV	Ch. 2 54-60	8	15	National Broadcasting Company, Inc. Cleveland, Ohio		Ch. 4 66-72	19.5	19
American Broadcasting Company, Inc. Chicago, Ill.		Ch. 7 174-180	15	30	*National Broadcasting Co., Inc. New York, N. Y.	WNBT	Ch. 4 66-72	5.75	7
*Balaban & Katz Corp. Chicago, Ill.	WBKB	Ch. 4 66-72	1.8	1.8	National Broadcasting Company, Inc. Washington, D. C.	WNBW	Ch. 4 66-72	10	13.3
Bamberger Broadcasting Company Washington, D. C.	WWBR	Ch. 9 186-192	24.5	30.25	National Broadcasting Company, Inc. Chicago, Ill.		Ch. 5 76-82	21.8	21.8
Carter Publications, Inc. Fort Worth, Texas	KCPN	Ch. 5 76-82	30.4	30.4	Oregonian Publish. Co. Portland, Ore.	WGWG	Ch. 6 82-88	11.2	10.
The Chronicle Publishing Company San Francisco, Calif.	KCPR	Ch. 11 198-204	19.2	18.24	The Outlet Company Providence, R. I.	WJAR-TV	Ch. 11 198-204	50	50
*Columbia Broadcasting System, Inc. New York, N. Y.	WCBS-TV	Ch. 2 54-60	1.72	1.72	The Philadelphia Inquirer, a Division of Triangle Publications, Inc. Philadelphia, Pa.		Ch. 6 82-88	9.3	18.1
Courier-Journal & Louisville Times Co. Louisville, Ky.		Ch. 9 186-192	7.2	9.6	*Philco Television Broadcasting Corp. Philadelphia, Pa.	WPTZ	Ch. 3 60-66	2.76	2.69
*Allen B. DuMont Lab., Inc. New York, N. Y.	WABD	Ch. 5 76-82	7.23	1.81	The Pulitzer Publishing Co. St. Louis, Mo.	KCBG	Ch. 5 76-82	To be determined	18.15
Allen B. DuMont Lab., Inc. Washington, D. C.	WTTG	Ch. 5 76-82	2.5	6.25	Radio-Television of Baltimore, Inc. Baltimore, Md.	WAAM	Ch. 13 210-216	20	31.65
The Evening News Assn. Detroit, Mich.	WECP	Ch. 4 66-72	17.7	17.1	Raytheon Manufacturing Co. Waltham, Mass.	WRTB	Ch. 2 54-60	30.7	50
The Evening Star Broadcasting Co. Washington, D. C.	WTVW	Ch. 7 174-180	15.2	14.25	Scripps-Howard Radio, Inc. Cleveland, Ohio	WEWS	Ch. 5 76-82	37.4	40
*General Electric Co. Schenectady, N. Y.	WRGB	Ch. 4 66-72	21.3	40	WBEN, Inc. Buffalo, N. Y.	WTVN	Ch. 4 66-72	7.2	14.4
Havens & Martin, Inc. Richmond, Va.	WTVR	Ch. 3 60-66	6.4	12.2	Westinghouse Radio Stations, Inc. Boston, Mass.		Ch. 4 66-72	7.5	10
Hearst Radio, Inc. Baltimore, Md.	WWBT	Ch. 11 198-204	17.2	32.6	WJAC, Inc. Johnstown, Pa.		Ch. 13 210-216	6.8	9
Intermountain Broadcasting Corporation Salt Lake City, Utah	KDYL-TV	Ch. 2 54-60	7.2	13.2	Zenith Radio Corp. Chicago, Ill.	WTZR	Ch. 2 54-60	4.5	4.5
Iowa State College of Agriculture & Mechanic Arts Ames, Iowa		Ch. 4 66-72	10.4	13					
King-Trendle Broadcasting Corporation Detroit, Mich.	WDLT	Ch. 5 76-82	14	16					
KRLD Radio Corp. Dallas, Texas		Ch. 4	To be determined	46					

* Indicates Licensed Stations.

Applications Designated for Hearing and Awaiting Decision

American Broadcasting Company, Inc.	B5-PCT-81
Los Angeles, Calif.	
Earl C. Anthony, Inc.	B5-PCT-12
Los Angeles, Calif.	

Hughes Productions Los Angeles, Calif.	B5-PCT-17
Don Lee Broadcasting System Los Angeles, Calif.	B5-PCT-23
National Broadcasting Co., Inc. Los Angeles, Calif.	B5-PCT-24
Television Productions, Inc. Los Angeles, Calif.	B5-PCT-160
Dorothy S. Thackrey Los Angeles, Calif.	B5-PCT-165
Times-Mirror Company Los Angeles, Calif.	B5-PCT-92
Bremer Broadcasting Corporation Newark, N. J.	B1-PCT-57
American Broadcasting Company, Inc. New York, N. Y.	B1-PCT-79
Bamberger Broadcasting System, Inc. New York, N. Y.	B1-PCT-15
Debs Memorial Radio Fund, Inc. New York, N. Y.	B1-PCT-116
News Syndicate Company, Inc. New York, N. Y.	B1-PCT-83
WLIB, Inc. Brooklyn, N. Y.	B1-PCT-114

Applications Being Held Up Pending the Disposition of Hearings in Related Cases

American Broadcasting Company San Francisco, Calif.	B5-PCT-158
Don Lee Broadcasting System San Francisco, Calif.	B5-PCT-22
Hughes Tool Company San Francisco, Calif.	B5-PCT-18
Dorothy S. Thackrey San Francisco, Calif.	B5-PCT-164
Maison Blanche Company New Orleans, La.	B3-PCT-78
New England Theatres, Inc. Boston, Mass.	B1-PCT-140
United Detroit Theatres Corporation Detroit, Mich.	B2-PCT-50
Allen B. DuMont Laboratories, Inc. Cincinnati, Ohio	B2-PCT-163
Allen B. DuMont Laboratories, Inc. Cleveland, Ohio	B2-PCT-161
Allen B. DuMont Laboratories, Inc. Pittsburgh, Pa.	B2-PCT-139
Interstate Circuit, Inc. Dallas, Tex.	B3-PCT-94

Applications Awaiting Information Requested by the Commission

Crosley Broadcasting Corporation Cincinnati, Ohio	B2-PCT-103
Crosley Broadcasting Corporation Columbus, Ohio	B2-PCT-112
Crosley Broadcasting Corporation Dayton, Ohio	B2-PCT-118
Radio Sales Corporation Seattle, Wash.	B5-PCT-95
Connecticut Television Company Bridgeport, Conn.	B5-PCT-75
Institute Divi Thomae Foundation Cincinnati, Ohio	B2-PCT-148
E. F. Pepper Stockton, Calif.	B5-PCT-556

Jacksonville Broadcasting Corporation Jacksonville, Fla.	B3-PCT-48
Philadelphia Daily News Philadelphia, Pa.	B2-PCT-119
Fort Industry Company Toledo, Ohio	B2-PCT-166

Applications Being Processed

Wm. Penn Broadcasting Co. Philadelphia, Pa.	B2-PCT-150
Broadcasting Corporation of America Riverside, Calif.	B5-PCT-30
Minnesota Broadcasting Corporation Minneapolis, Minn.	B4-PCT-176
Associated Broadcasters, Inc. San Francisco, Calif.	B5-PCT-46
WGN, Inc. Chicago, Ill.	B4-PCT-32
Wm. H. Block Company Indianapolis, Ind.	B4-PCT-126

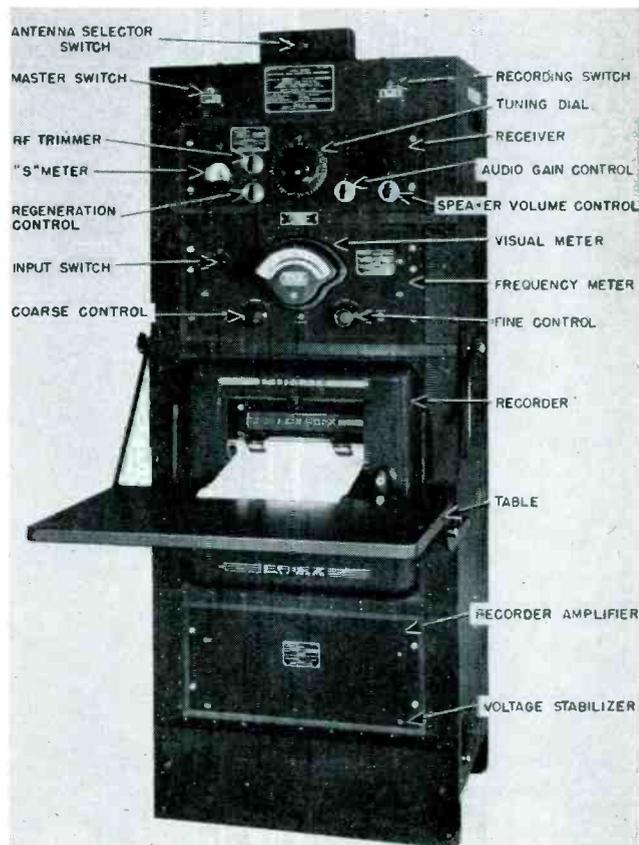
RADIOSONDE

(Continued from Page Eleven)

Together with surface weather maps and other auxiliary charts, combined radiosonde data (from many localities) is used to predict long-range general weather conditions for large areas with incredible accuracy.

The important technique of radiosonde will soon prove possible long-range weather forecasting as far as months or even a year ahead. And radio made this new technique possible.

Figure 4—Ground Receptor for receiving and recording Radiosonde signals.





The War
has taught all of us
the importance of
DEPENDABILITY
and
PERMANENCE
in all of our equipment

•
*Today — Write, Phone, or Wire
your order for*
SCULLY MASTER RECORDERS

•
**SCULLY
Machine
Company**

62 Walter Street Bridgeport 8, Conn.
Telephone BRidgeport 4-5300

CAPPS*

SAPPHIRE is, and has always been, the only material for making cutting styli for high class recordings.

CAPPS* Patented Sapphire Styli (2187512) are the original and accepted standard for high class professional acetate recordings.

Imitated but not equalled

FRANK L. CAPPS & CO., Inc.

244 W. 49th STREET NEW YORK CITY

Telephone Circle 6-5285

* Reg. U. S. Pat. Off.

C O P I E S

**BY DIRECT CUTTING
OF YOUR RECORDINGS**

33 $\frac{1}{3}$ RPM transcriptions
for broadcast or audition
use.

24 HOUR SERVICE
—packaged and shipped
from Chicago.

Aluminum based material
available for broadcast use.



*Write for
complete
details and
prices.*

L. S. TOOGOOD
RECORDING COMPANY
221 N. LA SALLE ST. CHICAGO 1

COMPLETE AUDIO FACILITIES WITH

Only 2 Types of AMPLIFIERS VACUUM TUBES

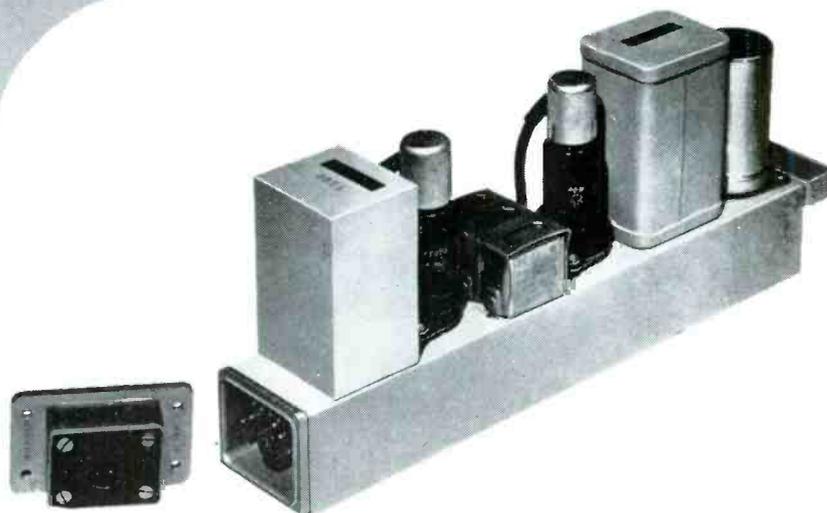
... AND ALL PLUG-IN

The Langevin Types 116-A and 117-A Plug-in Amplifiers were developed in collaboration with the General Engineering Department of the Columbia Broadcasting System.

We believe these amplifiers fulfill the desire of many broadcast engineers to simplify their audio facilities. With only these two types of amplifiers even the largest system can be fabricated. Further—in the interest of simplicity—only two types of tubes are required in the operation of both these units (the accompanying power supply uses a selenium rectifier). A replaced amplifier can be serviced when convenient at a test bench, with the aid of a simple service unit designed for that purpose.

Many lessons learned during the War have been incorporated in these amplifiers: They are simple, compact, rugged and of high quality; they are replaceable in a matter of seconds WITHOUT THE USE OF TOOLS; they are designed for easy servicing. And they can be either rack or console mounted; fittings are available. These units are connected into the circuit by means of a plug especially designed for them by Cannon—employing gold plated contacts and a shielded TWIN-AX input connection.

A COMPLETE SYSTEM USING THESE AMPLIFIERS WILL BE BETTER IN ALL RESPECTS THAN THE F.C.C. RECOMMENDATIONS FOR FM.



The Type 116-A has been designed for use as a microphone preliminary and as a booster amplifier—gain 40-34 db. Operates from source impedance of 30/150/250/600 Ohms and into load impedance of 150/600 ohms.

Push buttons permit reading plate current. Overall dimensions: 11¼" long, 2" wide and 5" high.

Complete specifications upon request.



The Type 117-A has been designed as a program or monitoring amplifier—gain 50 db. Operates from source impedance of 30/150/250/600 Ohms and into load impedance of 150/600 Ohms.

Push buttons permit reading plate current. Overall dimensions: 10" long, 3¼" wide and 6" high.

Complete specifications upon request.

The Langevin Company

INCORPORATED

SOUND REINFORCEMENT AND REPRODUCTION ENGINEERING

NEW YORK, 37 W. 65 St., 23 • SAN FRANCISCO, 1050 Howard St., 3 • LOS ANGELES, 1000 N. Seward St., 38

www.americanradiohistory.com

NABET National Council Meeting

October, 1946 : Denver



Dinner for the National members given by Rocky Mountain Chapter. Left to right: Glen Glasscock, Rocky Mountain Secretary-Treasurer; A. T. Powley, President, NABET; G. S. Dutton, Chairman, Rocky Mountain Chapter; James H. Brown, Hollywood, New Vice-President; H. C. Hiller, Natl. Sec.-Treas., NABET. Rear view of T. E. LaCroix, ex-Vice-President. Across from Thor is Vern Andrews, KOA Studio Engineer.

President and two Post Presidents get together. Left to right: James H. Brown, Hollywood, Calif., former President, our new Vice-President. A. T. Powley, New York, President, NABET; R. D. Carrier, Denver, Colorado, former President of ATE.

ing, every member of NABET being represented as though he were actually there.

OUR Eastern Councilmen arrived in Denver the morning of October 13th. After being assigned rooms, a mountain trip was arranged by the Rocky Mountain Chapter. The group went to Historic Central City, Colorado, which is located in the mountains West of Denver. A short cut was taken to save time. It was on this road that Mr. Allen advised the driver of his car to, "Watch the road, you have already seen the sights." After that remark, Mr. Allen turned his back to the car window and watched the driver. At Central City, the gang saw the "Face on the Bar Room Floor," the historic opera house and the many homes that were built during the good old gold and silver mining days. The group arrived back at the Brown Palace early to rest up for the week's work. And a week of work it was. Sessions—morning, noon and night. A truly democratic meet-

The Rocky Mountain chapter of NABET had the pleasure of giving a dinner for the National Council at 6:30 p.m., October 17th at the Brown Palace Hotel. Addresses to the group were made by President Powley, each member of the council, Mr. Thompson, and Mr. Anderson [the former Rocky Mountain chairmen,] and Mr. Carrier, former ATE President. Special was the meeting of two past presidents, Mr. Brown and Mr. Carrier and our President Mr. Powley.

Saturday morning after the meeting, another trip was arranged for our Western members who arrived too late for Sunday's trip. Mr. Powley missed both trips because business took him out of town. This trip was to Berthoud Pass where snow balls flew. The trip ended early that afternoon to make train connections.

Snyder of Rochester made contacts with his home chap-



Members from the East arrive at Brown Palace Hotel, Denver, Colo. Front row, left to right: Wm. J. Flanders, Boston; John H. Hogan, Washington; G. S. Dutton, Denver; A. T. Powley, President; C. Edward Jung, Baltimore; Clarence A. Allen, Nat. Rep.; Clyde M. Reed, Pittsburgh; H. C. Hiller, Nat. Sec.-Treas. Back row: Donald A. Muir, Syracuse; Charlie Snyder, Rochester; Willard Dean, Dixie; Reid Davis, Engineering; Don Morey, Mohawk; F. C. Schnepfer, Chicago; Harold V. Brandt, Cleveland, Roger Ellis, Detroit.

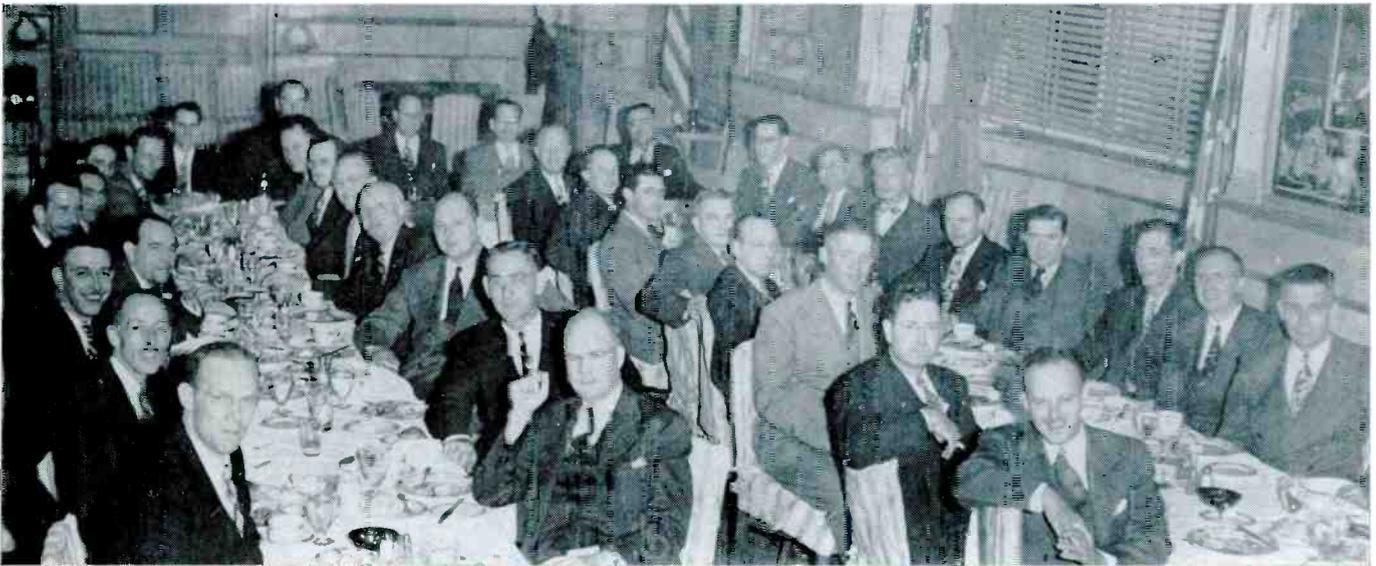


Meeting Opens: First row, reading front to back: Charles F. Snyder, Chairman, Rochester; G. S. Dutton, Chairman, Rocky Mountain; John R. McDonnell, Chairman, San Francisco; Donald A. Muir, Chairman, Syracuse; John H. Hogan, Chairman, Washington. Second row, front to back: Clyde M. Reed, Chairman, Pittsburgh; Charles H. Colman, Chairman, Philadelphia; Mark L. McGowan, Chairman, Omaha; Charles L. Bennis, Chairman, New York; Donald P. Morey, Chairman, Mohawk. Third row, front to back: Roger E. Ellis, Chairman, Detroit; J. Willard Dean, Chairman, Dixie; Reid R. Davis, Chairman, Engineering; James H. Brown, Chairman, Hollywood, New Vice-Pres.; Walter Payne, Chairman, Hudson. Fourth row, front to back: Harold V. Brandt, Chairman, Cleveland; F. C. Schnepfer, Chairman, Chicago; Wm. J. Flanders, Chairman, Boston; C. Edward Jung, Chairman, Baltimore; Clarence A. Allen, Nat. Representative. Standing, left to right: H. E. Hiller, Nat. Sec.-Treas.; A. T. Powley, President, NABCT; T. E. LaCroix, Ex-Vice-Pres.

ter via ten meter ham phone through WØDCY and WØFKQ. Several others talked from the mile high city via ham radio. Thor LaCroix suggests a ham net. From questions asked the Rocky Mountain members, quite a few councilmen were in search of that point so often heard of,

“WEST OF DENVER.”

The weather in Denver was almost as good as ordered. However—two weeks later, finds Denver covered with twenty-eight inches of snow. Very unusual, of course!—Dutt.



Dinner given by Rocky Mountain Chapter. First row, reading back: Mark L. McGowan, Chairman, Omaha; Donald P. Morey, Chairman, Mohawk; Geo. Anderson, KOA transmitter; John H. Hogan, Chairman, Washington; Blair E. Debbins, KOA Studio, Denver; Raymond Green, KOA transmitter, Denver; Donald A. Muir, Chairman, Syracuse; T. E. LaCroix, Ex-Vice-President, Denver; Second row, reading back: George Pogue, Studio Councilman, Rocky Mountain Chapter, KOA; Carl W. Nesbitt, KOA transmitter, Denver; J. Willard Dean, Chairman, Dixie; Charles L. Bennis, Chairman, New York; Walter Payne, Chairman, Hudson; Reid R. Davis, Chairman, Engineering; Vernon Andrews, KOA studio, Denver. Third row, reading back: Kenneth Raymond, KOA studio, Denver; A. C. McClellan, KOA studio, Denver; Charles F. Snyder, Chairman, Rochester; Clyde M. Reed, Chairman, Pittsburgh; Wm. J. Flanders, Chairman, Boston; J. Milton Hall, KOA studio; Joseph H. Rohrer, KOA studio; Russell C. Thompson, KOA transmitter. Fourth row, reading back: Harold V. Brandt, Chairman, Cleveland; C. Edward Jung, Chairman, Baltimore; John R. McDonnell, Chairman, San Francisco; Clarence A. Allen, Nat. Representative; F. C. Schnepfer, Chairman, Chicago; Walter L. Morrissey, KOA studio; Roy D. Carrier, KOA transmitter; Roger E. Ellis, Chairman, Detroit. Back row, left to right: Glenn R. Glasscock, Rocky Mountain Sec.-Treas., Denver; A. T. Powley, President, NABCT; G. S. Dutton, KOA transmitter, Chairman, Rocky Mountain Chapter; James H. Brown, Vice-President; H. E. Hiller, Nat. Sec.-Treas.



Merry Christmas

AS THE first postwar year draws to a close I welcome the opportunity to salute the engineers of our industry, and repeat the ancient words that never grow old — Merry Christmas!

I want to express my deep appreciation of the faithful, skillful work performed during 1946 by the NBC technical staff—work that was a credit both to broadcasting and to the broadcast engineering profession.

In radio, we always are able to look back on twelve months of progress and accomplishment, while at the same time we stand on the threshold of a new year that seems to offer still greater opportunities. That is why radio is such a fascinating business.

The old year 1946 and the new year 1947 are no exception to the rule. A solid achievement lies behind us; a stirring challenge lies ahead.

I am confident that those responsible for the achievement will be fully equal to the challenge.

May good health and happiness be yours, all the days of the coming year!



Niles Trammell

NILES TRAMMELL, President, National Broadcasting Company



A. T. POWLEY
Chairman, Board of Trustees

Holiday
Greetings
From the Staff of
THE
BROADCAST
ENGINEERS'
JOURNAL



ED. STOLZENBERGER
Editor and Business Manager



WALTER PAYNE
Chairman, Hudson Chapter
Member of the Board



REID R. DAVIS, III
Chairman, Engineering Chapter
Member of the Board



CHARLES L. BENNIS
Chairman, New York Chapter
Member of the Board



GEORGE RILEY
Member of the Board



HARRY E. HILLER
Treasurer



M. JACOBSON
Member of the Board

***It is our
pleasure***

each year at this time
to send greetings to
our fellow NABET
Engineers from Coast



CHARLES L. BENNIS
Chairman, New York Chapter NABET

to Coast, and to wish our many friends on both
sides of the microphone and television camera, a

Very Merry Christmas

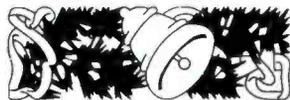
and

A Happy New Year



***New York Chapter
N - A - B - E - T***





A Merry Christmas

from

MUZAK

TRANSCRIPTIONS



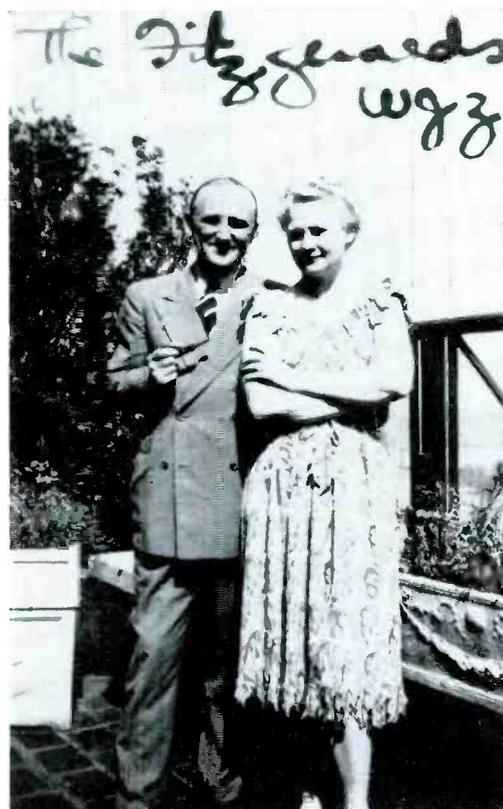
RADIO DIRECTORS GUILD

New York Local

"We love yez
all dearly"

Ed and Pegeen Fitzgerald

WJZ



Can You Top This?

Holiday Greetings



N. B. C. Network

Saturday — 9:30-10:00 P. M. E.S.T.

Ed J. Weber, Gen. Mgr.
156 W. 44th St.,
New York 18, N. Y.

W. O. R.

Wednesday — 8:00-8:30 P. M. E.S.T.

*From
all of us here . . . from
all our clients*

MANY THANKS

*for your swell cooperation
in the past*

BEST WISHES

*for your continued success
in the future*



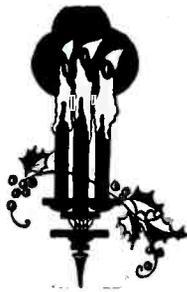
THE BIOW COMPANY

INCORPORATED

HOLLYWOOD

NEW YORK

SAN FRANCISCO



Season's Greetings

Paul Lavalle



FRED WARING

and the

PENNSYLVANIANS



Best Wishes

BEATRICE KAY



NEW YORK

The
Barry Gray Show

WOR—Mutual

IT
AIN'T
KILROY



KITTELL
GETS AROUND
TOO

17 Years Before the Mike

CLYDE KITTELL—LE 2-1100

Announcer — Narrator

*Happy New Year
To all of you
Howell Thomas*

 NEW YORK 

COMPLIMENTS OF

HOP HARRIGAN

AND

SUPERMAN

Produced by
ROBERT MAXWELL ASSOCIATES
480 Lexington Avenue
New York City 17



A Merry Christmas
A Happy New Year

and

Thanks To You All

KEN BANGHART

“Hitting Peaks”

In Our Greetings

For Our Friends

THE ENGINEERS

ALICE CLEMENTS

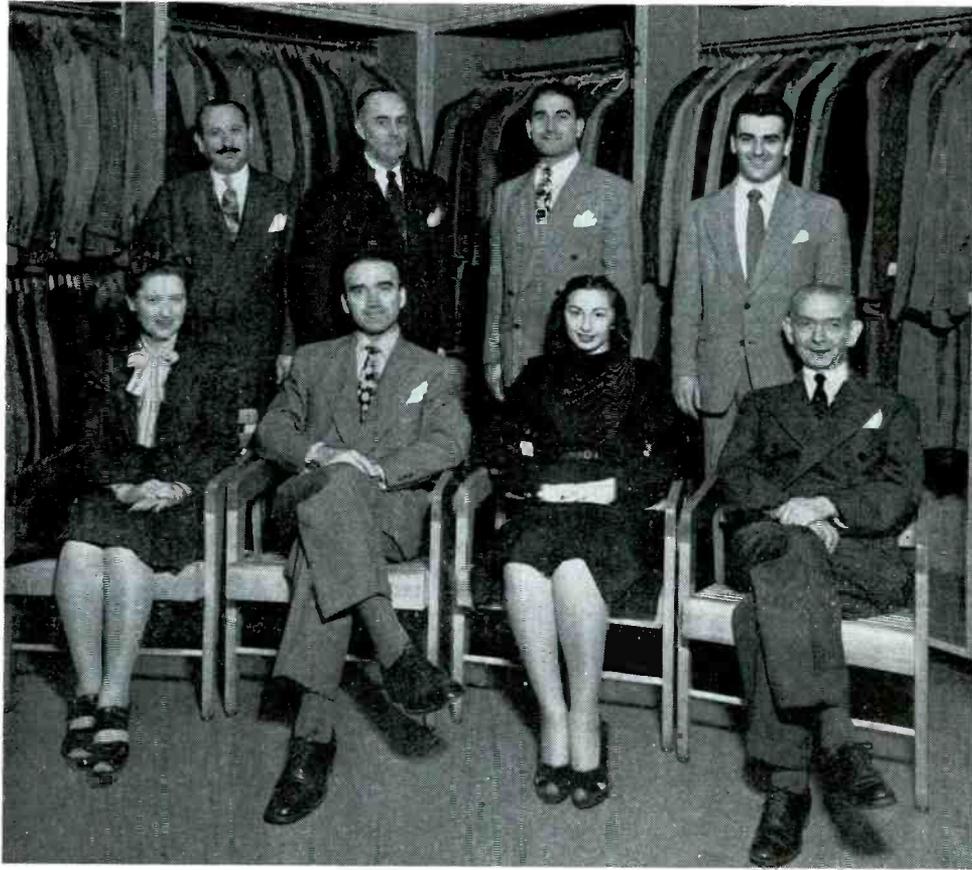
and the

HORN & HARDART

CHILDREN'S HOUR CAST



Greetings to Our Friends in the Broadcasting and Entertainment Fields



Standing (left to right): Frank Ruggieri, Raymond Griffiths, Anthony Pizza, and J. F. Alvarez. Sitting (left to right): Sally Lynn, Irving Bluestone, Lucille Perry, and Charles Testa.

CIRCLE 6-2560
45 W. 48th St. **A**USTIN, Ltd., Rockefeller Center, New York 20, N. Y.

BEST WISHES

and

Thanks

BARRY THOMSON

Merry Christmas

from

Arthur Hale

This one is on me...

Nat Abramson,
manager

WOR Entertainment
Department

SEASON'S
GREETINGS



LEN STERLING



NEW YORK

Compliments of

EXPLORING THE UNKNOWN

SPONSORED BY: REVERE COPPER AND BRASS, INC.

PRODUCED BY: SHERMAN H. DRYER PRODUCTIONS

AGENCY: ST. GEORGES & KEYES, INC.





In the Spirit of the Yuletide — Greetings to the Engineering Staff
FRANK BLACK

Season's Greetings

from

**International Alliance of
Theatrical Stage Employees**

A.F.L. Local 782

(N.B.C. Studio Set-Up Men)

In Appreciation

W. W. CHAPLIN



Love and Kisses to the Boys

SHIRLEY WOLFF

NEW YORK

GREETINGS



JOHN GART

AND

STAFF

MERRY

CHRISTMAS

Charles Paul



Greetings to the Boys
Who Bring Us All Down
To Our Level

ROD HENDRICKSON



Audio — "Season's Greetings"

Video — "Bob Stanton"

NBC — N. Y.

Holiday Greetings

to

NABET

JOHN WINTERS

Season's Greetings

DON VOORHEES



Season's Greetings
and Best Wishes

*To a Swell Gang . . .
All the Engineers*

from

THE THREE SUNS

ARTIE DUNN

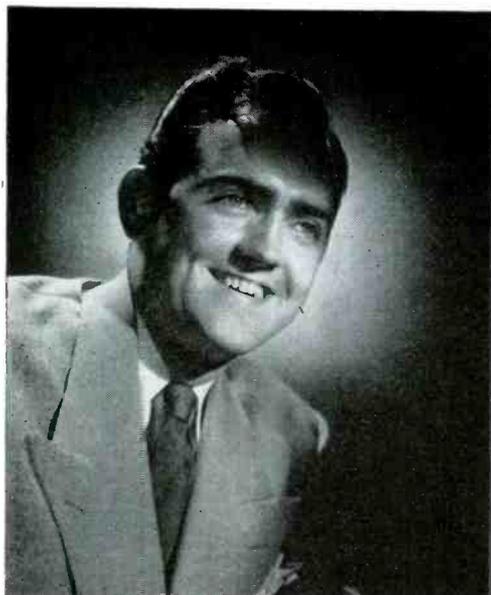
MORTY NEVINS

AL NEVINS

Hotel Picadilly



Greetings, Gentlemen



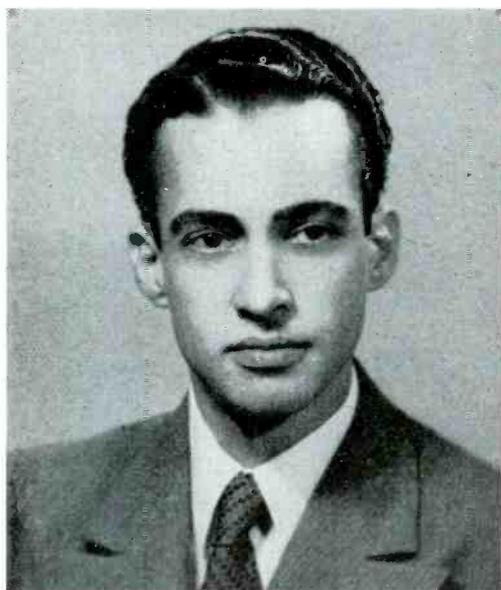
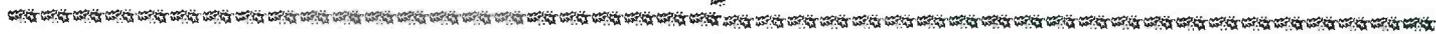
GEORGE ANSBRO

ABC — N. Y.



Season's Best Wishes to All

ED. HERLIHY



*Muchas Gracias Amigos and
Best Wishes*

FRANCISCO FORCADE

N.B.C. Announcer — Spanish Department



**The Season's Best
To Everyone**

from

Jack (John Patrick)

Costello

**Good Luck
To You Boys**

Silvia Leigh

and

Gene O'Donnell





Best Wishes

HELEN CARROLL

and

THE SATISFIERS

BOB LANGE

TED HANSEN

ART LAMBERT

FORD BOND RADIO PRODUCTIONS, Inc.

810 RCA Building West • New York 20, N. Y. • Circle 7-2236

The Engineers Have Helped Us Turn Out What Our

Clients' Sales Results Prove Successful Shows

Our Thanks to the Engineering Staffs

FORD BOND

VINCENT CONNOLLY

ANNOUNCER FOR

Mary Margaret McBride (WNBC)
Bond Clothes (WOR)
It's Up to Youth (Mutual)
Paramount Newsreels

Best Wishes to All the Broadcast Engineers

JOHN GRIGGS

My Sincere Thanks

and Best Wishes

Ernie Ricca

Hello Again!

CHAS. IRVING

"BETTER HAFF"

A Merry Christmas

and

A Happy New Year

Jack Byrne . . . Tiny Ruffner

DICK

WILLARD



Greetings

Stan Lomax

WOR SPORT NEWS



A.B.C.—NEW YORK—STAFF ANNOUNCERS

DORIAN ST. GEORGE

JACK SLAGLE

STAN SHAW

JAK MC CARTHY

DON LOWE

ROGER KRUPP

GENE KIRBY

KEL KECH

WALTER HERLIHY

GEORGE HAYES

GENE HAMILTON

GEORGE GUNN

LES GRIFFITH

DON GARDNER

GORDON FRASER

MILTON CROSS

BILL CRAIG

DOUG BROWNING

GEORGE ANSBRO

from

Season's Greetings to NABET



NEW YORK NEWS

By Gil McDonald

ON NOVEMBER 2nd, WEAF became WNBC after having used WEAF since the inception of the National Broadcasting Company many years ago. WEAF first went on the air in 1922 and was then owned by the A. T. & T. The shift in call letters was marked by an hour long show featuring many of the best NBC artists. The engineering was handled by Gene Lynch and Walter Brown. One interesting fact completely lost in the shuffle is this: Brownie was the engineer on the very first WEAF show when the NBC was formed. He has been with the company ever since, and capably served overseas during the war as a Lt. Colonel on General David Sarnoff's staff.

Trends

The new salary scale for WHN, a local 50 Kw station here in New York is \$70.00 per week minimum to \$115.00 top reached after 4 years' service. Supervisors receive \$130.00 weekly.

WNEW, a 10 Kw local, starts at \$70.00 per week and reaches \$110.00 in five years. Supervisors, likewise, get \$130.00 per week. Both stations are under ACA contracts.

NBC Studio

Johnny Pawlek, lately of N. Y., but now of Hollywood, flew in to do the Bob Hope and Truth-or-Consequences shows. He's really got himself a handful in those two. "Red" Shultis and Gil Markle did the show the week before Johnny arrived. "Red" cranked out the show while Gil rode the laughs.

George Vose seems to be the New York Pawlek, what with City Service, International Harvester, and the Voice of Firestone to look after.

Don Abbott and Joe Silva managed to get in several good rounds of golf during that summer weather we had during October and the beginning of November.

Hal Flood says he still has plenty of that RG-8U co-ax cable left if any of the boys want it. See recent BEJ ad for details.

ABC Studio

Sanford Major left the staff during October and took a job as technical supervisor for the United Nations new radio set up. Lots of luck, Sandy.

Bert O'Leary says, "Soup in tank good. No soup in antenna." He is looking forward to his first 144 Mc. QSO after he gets the bugs ironed out of that 829-B rig.

Pete Narkon built up a pair of 812s running 300 watts.

Gil McDonald put up rotary beam antenna covering both 10 and 20 meters. Sure makes a lot of difference in working the elusive DX.

Bill Perry returned to work on November 4th, after a leave of absence spent over in England since the Spring. Looks like the British food agreed with him as he put on several pounds.

Bob (Sammy Kay's boy) Dougherty spending his time working midnites temporarily.

Recording

Called my recording gal Friday, Mary Bell, for the latest from recording and she reports, "no news is ever made here, we're too busy; but call next month, I'll have some real scandal for you." Will do.

Maintenance

Pat Rooney rues the day WEAF changed call letters. To him fell the lot of changing all the mike signs over to WNBC. Ouch.

Pat Haynes finally got the cabin cruiser perking in great shape. Practically spent his whole three weeks' vacation on board in the Great South Bay.

Bill Tague moved from ABC studio to ABC maintenance to help out little Cookie. Shouldn't be so lonesome now, Jim.

Johannesen Electric Company, Inc.

WHOLESALE DISTRIBUTORS

Electrical Supplies • Appliances
Electronic Equipment

312-314 N. Eugene Street, Greensboro, N. C.

Phone 6169

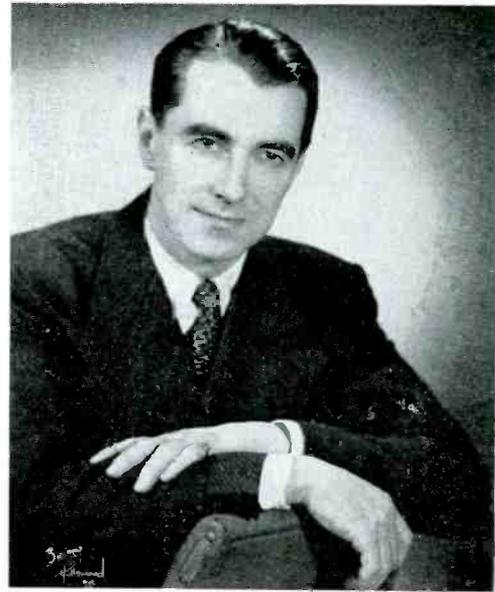
We Have a Large Stock for Broadcast and Amateur Use
Representing Most Outstanding Manufacturers

NEW YORK

Season's Greetings



MARTHA DEANE



DON BRYAN

"Exploring the Unknown"

To the "INDISPENSABLE MEN"

Best Wishes



DR. FRANK KINGDON



Alfred W. McCann, Jr.

Circle 7-0051

Founded 1888

TREPEL
ROCKEFELLER CENTER

Flowers

Personal Management
JACK TREPEL

RCA Building
52 West 50th Street
New York 20, N. Y.

Thanks, Fellows

from

GALEN DRAKE



Season's Best

To All

BILL STERN



Season's Greetings



from

MOE GALE



Compliments of

GEORGE WRIGHT

ORGANIST

Henry J. Taylor

"Your Land and Mine"

MERRY XMAS
and
SPEEDY RECOVERY
to
HANK SYLVERN

from the
ANNOUNCERS . . . ENGINEERS
AND
SOUND MEN
OF
WOR

Merry Christmas

Happy New Year

Harvey Harding

Baritone
WOR



Cecil Brown

Mutual Commentator



10:15 and here are

Bessie Beatty & Bill

to say:

Thank You

to Johnny Cook, Eric Herud,
and all the Engineers at WOR
who have helped to keep us
on the air for seven years

Greetings

John Stanley

"Your Friendly Neighbor"
Mutual



A
VERY
MERRY
CHRISTMAS

ARNOLD H. ROBERTSON



Masters Mart, Inc.

66 West 48th St.

New York

BRyant 9-7725



AIR
FEATURES
Inc.



247 PARK AVENUE
NEW YORK, N. Y.



WALTER KIERNAN



**Best Regards to
The Control Corner
FROM
Kiernan's Corner**

GREETINGS

**To My Many Good Friends
Among Broadcasting Engineers**

CLEM McCARTHY



**Best Wishes
From
The Smoothies**

**BASS NILES
CHARLIE RYAN
JACK LATHROP
LITTLE RYAN**

Greetings to Our Friends

from

U O R K B A R

YOUR FAVORITE RENDEZVOUS

Kaufman - Bedrick Pharmacy

IN THE R.C.A. BUILDING

**DRUGS
FOUNTAIN SERVICE**

**LUNCHEONETTE
COSMETICS**

When at NBC, Dial 780 for Service

NEW YORK



Greetings, Fellows
Prescott Robinson
WOR
News Caster



88's to All the Engineers
CECIL ROY



**HENRY
GLADSTONE**

Season's Greetings

From Your Favorite

Radio and Electronic Parts Distributor

New large quarters and additional facilities now enable us to fill your orders better than ever. For phone orders and information call Circle 6-4060 in New York; in Chicago, State 2950

NEW YORK
Offices & Warehouse
242 W. 55th St., N.Y. 19

NEWARK
ELECTRIC COMPANY, INC.

CHICAGO
323 W. Madison St.
Chicago 6, Ill.

New York City Stores: 115-17 W. 45th Street and 212 Fulton Street

The Whale That Got Away

By Pat Miller

THE following is a story about Bill "Dammittall" Boher of MC and Jim "Dreamboat" Carter of Studio, both of whom are fishing friends. This type of thing takes place about once a week with the same plot and about the same ending.

The scene is the local Bar and Grill out Point Lookout way. The time is about 9 p.m., and the usual gang of surf fishermen are assembled, slugging down their evening's quota of grog.

A small knot of men are located at the far end of the bar and are listening with intense interest to Carter, who is bragging, as usual.

Carter: I swear he must have been as big as a whale! Why he had me in the surf up to my chin.

Boher: (Fading in.) Hello gang. What is our veal faced friend bragging about tonight?

Carter: (Hurt.) I don't like your attitude Boher.

Boher: Don't mind me, McDuff, carry on with your latest rave. What did you catch now?

Carter: I hooked into a twenty-five pound striper this morning.

Boher: Really. Where is the beast?

Carter: (Crestfallen.) It got away.

Boher: Like most of your fish stories, methinks.

Carter: (Belligerently.) This ain't no fish story. This one was twenty-five pounds if he was an ounce.

Boher: How do you know?

Carter: How do I know! You're some fisherman! From the fight he gave me, silly!

Boher: Well, gang, I hate to have you bored twice, but I must hear this one. Go ahead, veal face, from the beginning, puleeze.

Gang: Go ahead, Jim, start over.

Carter: Oh, well, as I said at the beginning, I was out on the beach in the fog this morning . . .

Boher: (Interrupting.) You're always in a fog.

Carter: (Peeved.) Shaddup Boher. As I was saying, I was squidding along the beach, using that new jig with the pink and yellow feathers, when all of a sudden I get a bite. Since I was using a light sporting line I had to ease up on my star drag. Bit by bit he worked me down the beach into the surf. He felt like a ton and it was no time at all until he had me in the drink up to my knees, then up to my boot tops. I had half a mind to let him go as I didn't want to get a soaking, but he put up such a fight I just had to haul him in. Sure enough I worked out in the surf up to my chest and then to my chin. I was worried then as I knew a few more inches and I would be out of luck. Just when I thought I was licked, I turned his head. Wowie what a thrill! I worked him back up the beach in easy stages but just when I was about to haul him in, the line goes slack. Yeah, fellers, he snapped the line and got away. He put up a swell fight but I sure wish I had him.

Boher: This all took place about ten this morning, didn't it?

Carter: (Uneasily.) Yeah. How did you know?

Boher: I was squidding about one hundred and fifty feet east of you.

Carter: That's funny, I didn't see you.

Boher: I know you didn't, but the fog lifted for a minute and I spotted you.

Carter: Well, ok, you saw me. So what.

Boher: The tide was coming in about that time, wasn't it?

Carter: (Worried.) Yeah, I think it was.

Boher: So you think you hooked a twenty-five pounder, eh?

Carter: (Chestily.) Twenty-five pounds if he was an ounce!

Boher: I think you hooked a hundred and fifty pound fluke, and that fluke was me.

Carter: You!

Boher: Yeah, me, veal face. You see, when you cast out your line, it went around a sunken spar and the far end of it was driven in by the tide and got fouled up with my line. Luckily for me I saw you and knew you had hooked me. So I figured this gives me a good chance to have some fun with you and cure you of your bragging. So I just played with you just as if I'm your striper and drag you into the surf. I didn't mean to get you wet, but you're not in sight, so I just had to guess how far to drag you out. When I thought you had enough, I eased you back on the beach . . .

Carter: (Interrupting.) Am I supposed to believe a tale like that?

Boher: If you'd let me finish, you would believe it. When I eased you back on the beach, I just cut your line and retrieved your squid. See veal face! Isn't it pretty? It has nice pink and yellow feathers, too. Ha Ha!

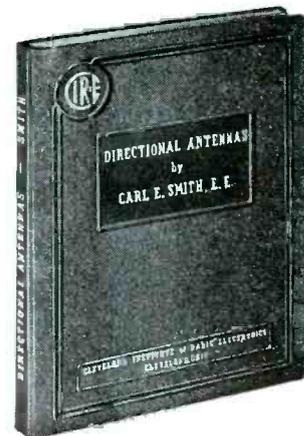
Carter: (Crestfallen.) A fine way to treat a buddy, that's all I can say. (Getting mad.) I'm going to sue you for next week's laundry. That's what I'll do.

Yeah, gang, this goes on, week after week, with Ex-Editor Carter always on the short end of the stick. Boher always has to nurse him along. If it's a foggy day, Carter gets lost and has to be retrieved by his distinguishing draggy boot marks he leaves in the sand. If it's a clear day, he usually loses his lunch pail and has to wander around looking for it.

Carter has a heart of gold, though. However, what good is gold these days. He will end up being buried at Fort Knox!

DIRECTIONAL ANTENNAS ENGINEERING DATA INDISPENSIBLE TO BROADCAST ENGINEERS

Covers THEORY OF FUNDAMENTAL PROPERTIES—DEVELOPMENT OF GENERAL DESIGN EQUATION and graphic methods of solution thereof—APPLICATION OF GENERALIZED EQUATIONS to determine pattern shape and size—SYSTEMATIZATION OF TWO- and THREE-TOWER PATTERNS (Over 15,000 Patterns Illustrated).



By CARL E. SMITH, E.E.,
Vice President in Charge of Engineering, United Broadcasting Co.
President, Cleveland Institute of Radio Electronics

Indispensable to
Consulting Engineers
Broadcast Engineers
Technical School Libraries
Radio-Electronic Libraries

Eliminates hundreds of hours of laborious calculations. Gives systematic combination of current ratios, phasing and root-mean-square values for two- and three-tower antenna systems. Calculations made on unique electro-mechanical antenna pattern calculator designed and built by author and his associates.

PRICE \$15.00 2 COPIES for \$25.00
Write for quantity discounts

Contains over 300 pages 8 1/2 x 11" size. 5-day FREE EXAMINATION.
Limited Edition — Order Now Before Supply is Exhausted.

Cleveland Institute of Radio Electronics
BJ-12 TERMINAL TOWER CLEVELAND 13, OHIO

Announcers Who Live in Glass Studios Shouldn't Throw Anything

(Except Good Wishes to the Engineers!)

THE WOR STAFF

JACK (*Juvenile Jury*) BARRY

JOE (*Man on the Farm*) BIER

TED (*Spotlight on America*) BROWN

HARRY (*Frazier Hunt*) CARLSON

CARL (*Scalamandre Concert*) CARUSO

RUSS (*Burl Ives*) DUNBAR

BRUCE (*Tello-Test*) ELIOT

DON (*Henry J. Taylor*) FREDERICK

GEORGE (*Martha Deane*) HOGAN

JACK (*Crimes of Carelessness*) IRISH

JAY (*Angostura Program*) JACKSON

BOB (*Nick Carter*) MARTIN

FRANK (*Business Highlights*) McCARTHY

DAN (*Superman*) McCULLOUGH

RALPH (*Cecil Brown*) PAUL

KEYES (*Fulton Lewis*) PERRIN

JOHN (*Green Light Revue*) SCOTT

PHIL (*Max Lerner*) TONKEN

ART (*Newscaster*) VAN HORN

CARL (*Better Half Matinee*) WARREN

DICK (*Bessie Beatty*) WILLARD

Twenty-five years and forty-nine thousand, seven hundred and fifty watts ago, WOR first went on the air. Our sole studio was a reconverted corner of the rug and radio department of L. Bamberger in Newark. When our signal was heard in Asbury Park, New Jersey, WOR thought it was a tremendous achievement. When we were heard in London and Tokyo a few years later our pride knew no bounds.

We kept growing not only program-wise, but technically as well. Our 250 watts became 500, then 5,000, and finally in 1934 -- 50,000.

But whether we were operating with "one lung" and a lot of elbow grease; or, as at present, with the finest technical equipment available -- the boys at the transmitter, in master control, and the versatile "gain riders" in the control rooms, always have been responsible for our excellent service. They have played a major role in making WOR one of America's great stations.

Now on our Silver Jubilee, we say thanks for a job well done. We know through your efforts and loyalty, WOR will reach new horizons not only in AM broadcasting, but in FM, Facsimile and Television as well.

Theodore C. Streibert
President, WOR

NEW YORK



Best Wishes
Season's Greetings
to
The Engineers

VAN DEVENTER
WOR

**BOB
EMERY**

WOR — MUTUAL

DUMONT TELEVISION



Greetings

FROM

MELVIN ELLIOTT

NEWS CASTER

73s . . .

from an ex-Engineer

John B. Gambling

WOR

PAUL SCHUBERT

"Hello, Everybody"

Season's Greetings

FRAZIER HUNT



Greetings



Keyes Perrin

Here's to all the Engineers

Without you boys,

Fellows like us

Couldn't get along

BEST ALWAYS

Bob Martin

WOR Staff Announcer



GREETINGS

SALUDOS

SAUDAGOES

from

Spanish Section

Emilio de Torre
Ernesto Foregger
Alberto Ganderó
Juan Gutierrez
Alberto More
Mario Silveira
Armando Zegri

Production Dept.

Ted Bergman
Raymond Green
Ary Moll
Juan J. Vazquez

Brazilian Section

Mario Cardoso
Carlos Cavalcanti
Richard De Avellar
Manuel Pinto
Walter Silva

International Division

NATIONAL BROADCASTING COMPANY

New York

Season's Greetings

From:—

HURLEY BROS. & DALY
RADIO CITY BAR & GRILL

WHERE STAGE,
SCREEN and
RADIO STARS
MEET

Finest Wines and Liquors

N. E. CORNER OF 6th AVENUE and 49th STREET
NEW YORK CITY

Featuring GOOD Food and DRINKS
Served in a Friendly Atmosphere

Under Management of:
CONN HURLEY

A B C ORGANISTS

Rosa Rio

Gene Perazzo

George Henninger

Arlo



The Voices of N. B. C.

— from *Radio City in New York* —

Tex Antoine	Arthur Gary	Don Pardo
Ken Banghart	Ben Grauer	Jack Rayel
Ray Barrett	Rad Hall	Mal Ritter
Jack Costello	Ed Herlihy	Herb Sheldon
Bill Davies	Clyde Kittell	Bob Sherry
Robert Denton	Charles F. McCarthy	John Simpson
Dick Dudley	Tom O'Brien	Roger Tuttle

and our Boss Man Pat Kelly



. . . Join in wishing you a

STENTORIAN

MERRY CHRISTMAS

and a

PEAR-SHAPED

HAPPY NEW YEAR

NEW YORK

Season's Greetings to All...

Chet Kingsbury

STNEMILPMOC

FO

NATURES

VICTOR LINDLAHR

DALE KENNEDY

Broadcast Engineers' Journal **62** Yearbook • December, 1946

Merry Christmas

To You



ROBERT DENTON

The
Season's Greetings

from

"BREAK THE BANK"

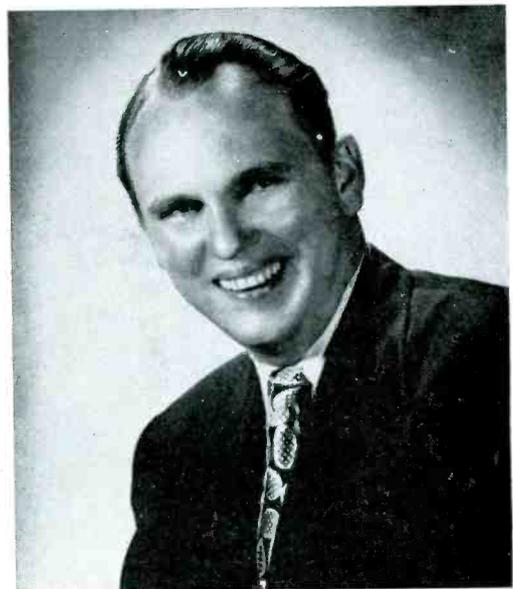
The Season's Most Exciting

Radio Show

A WOLF ASSOCIATES PRODUCTION

420 Madison Avenue

New York City



The Best Of Good Wishes

To You All

BOB DIXON

CINDERELLA, Inc.



Season's Greetings

To Real Sportsmen

HARRY WISMER



Season's Greetings

and Sincere Best Wishes

BEN GRAUER

Forgive Us — For OUR Share of * Your Ulcers



* Engineers

FERNANDO MONTILLA
"GABE" GABRIELSON
"SPEED" LUEDKE
BOB ZWECKE

JINX and TEX

Thanks, Boys . . .

From — BLUE BARRON
SALLY STUART
CLYDE BURKE
CHARLIE FISHER

and all the gang

EILEEN PALMER

CHARLOTTE MANSON

LAWSON ZERBE

MATT CROWLEY



**YOUR FRIEND
IN THE
BUSINESS** **JACK SCHIFF**
CAMERA EXCHANGE
55 VESEY ST NEW YORK 7 BE 3-1151



Best Wishes

ADELAIDE
(ANN BRADLEY)
HAWLEY



To Our Sincerest
Friends and
Severest Critics
The Engineers

Roger Forster



SEASON'S BEST
To Everyone

Audrey Marsh



PERCY FAITH

T
H
A
N
K
S

F
E
L
L
O
W
S



BUDDY CLARK

**SCHWERIN
RESEARCH
CORPORATION**

Qualitative Research

ROOM 958, RCA BUILDING
30 ROCKEFELLER PLAZA
NEW YORK 20, N. Y.

GREETINGS

To the Engineers and
Best Wishes for

1947

ROY SHIELD

N.B.C.

From

**McCall
Schneider
Meyers
Prince
Wakelee**

THE NBC
NEWS ROOM
IN NEW YORK

THANKS FELLOWS!



Sorry to Get You Up So Early

BOB SMITH

WNBC — RADIO CITY



Merry Christmas
To You Guys

EDDY DUCHIN

Greetings To Our Engineer
Ken Arber



MAGGI McNELLIS



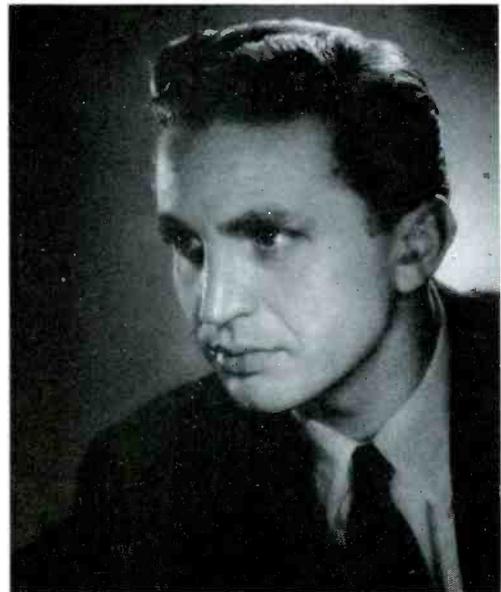
HERB SHELDON

After Two and a Half Years on
"Maggi's Private Wire"





HELLO AGAIN
and
AGAIN A MERRY XMAS
from
LUCILLE WALL



A VERY MERRY CHRISTMAS
from
KARL SWENSON

SINCERE BEST WISHES

To the Guys Who Can

Make Us or Break Us

MARIAN SHOCKLEY

BUD COLLYER

wassail, wassail, gentlemen
and many kudos^o to you*

WNBC NEW YORK at 660 k.c. ★



THE NATIONAL BROADCASTING COMPANY IN NEW YORK

* singing of carols, etc. from house to house
especially at Christmas time

^o praises, extolations, glorifications

★ and thanks for keeping it on frequency!



Thanks, Boys

CHARLIE SPIVAK
and
ORCHESTRA



All the Best



TODD RUSSELL

Season's Greetings

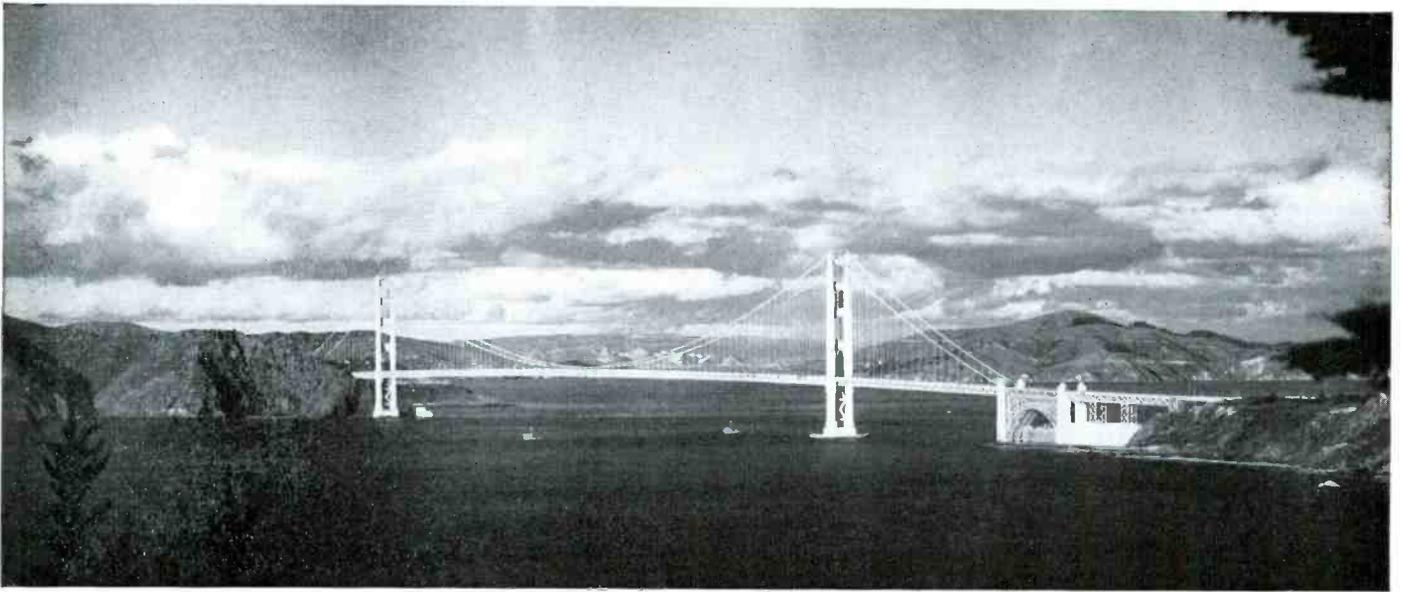


HUGH JAMES

Merry Christmas

Margaret
Macdonald





This Report Comes To You by Way Of **San Francisco**

By Jack Van Wart

W E IN San Francisco would like to introduce our council: In the office of Chairman, we have John McDonnell. "Mac" as he is known, is a Studio-field engineer for ABC, and during his off hours you will find him in Mill Valley over in Marin County across the Golden Gate Bridge. With his wife and two children, Mac is at the other end of the step-ladder from Bob Woods, being the fellow with his head highest in the sky.

Russ Butler is our Secretary-Treasurer, Russ is a Studio-field engineer from NBC. Although you may see him juggling the platters in the recording room, or in the field maintenance or in the Master control, seeing that all the programs are coming and going as planned. Russ and his wife, Jan, have their home in Oakland, where Russ is almost certain to be found calling or answering a CW in the shack. If, by chance, he is not busy with the kilocycles, he is sure to be busy in his well equipped dark room.

C. T. Stevens is the councilman for the NBC studio-field group. Steve and his wife and daughter have recently moved to Walnut Creek, about forty-five minutes from San Francisco. He has a larger piece of land than most of us, and occupies his time pruning his fruit trees, planting and mowing the lawn, building fences, walls and generally busying himself trying to complete what he calls his own "Five Year Plan."

Sydney Blank represents the ABC studio-fieldmen as their councilman. Syd, Agnes, Candy and Peterson spend the greater part of Syd's off hours together. Agnes, his wife, and Candy and Peterson his pedigreed Cocker puppies. Both Syd and Agnes are extremely interested in the training of all breeds of dogs and have entered their two in many shows with success. Syd spends one or two nights a week working with dogs being trained as guide dogs for the blind.

As representatives from the various transmitters, we have George Irwin from KGO over in Oakland. At KPO in Belmont we have Wendell Seward, and from the four international short-wave transmitters at Dixon, California (KNBI, KNBX, KNBA, and KNBC) we have Erwin Dold.

Although the number of programs fed to the network from San Francisco is small, we do boast a few. There is the Standard Hour on NBC, a one hour musical featuring the San Francisco Symphony Orchestra, and the San Francisco Opera Orchestra.

There is "Pat Novak for Hire" on ABC which is gaining acclaim. Pat Novak is played by Jack Webb and in supporting role there is John Galbrath, Yvonne Peattie and many others. Among the local programs there is Light and Mello, a half hour musical program featuring Armand Girard with Karl Kalash and the KPO orchestra.

San Francisco also boasts many alumni now heard from other cities, among whom are Hal Peary, the "Great Gildersleeve," Ralph Edwards, the Truth or Consequences man, and great many more.

In closing, all of us in San Francisco extend the Season's Best Wishes to all.



"Sure-Fire Recording Company.
Good Evening, Good Evening,
Good Evening . . ."

Dixon

Bennett
 Brown
 Curtis
 Dold
 Fell
 Gardner
 Martin, Noel
 Osborne
 Paradis
 Schmolke
 Shields
 Southwell
 Townsend

ABC Traffic

Conner
 Radston

KPO — Belmont

Brewer
 Dingle
 Kellog
 Manning
 McAulay
 Seward
 Sturgell
 Walker

Anderson
 Gordon
 Hamma
 Hawkins

KGO — Oakland

Bernard
 Blanchet
 Case
 Hill
 Irwin
 Kramer
 Martin, Ken
 Nickels

Inactive

Oddstad
 Oliver
 Cooper
 Joyner

Studio

Andresen
 Barron
 Berg
 Blank
 Butler
 Cassidy
 Dewing
 Dunnigan
 Fuhrman
 Hall
 Harvey
 Jacobs
 Jefferson
 Kilgore
 Kolm
 Maxwell
 McDonnell
 McElwain
 Melnicoe
 Mitchell
 O'Neil
 Parkhurst
 Parks
 Puccetti
 Rothery
 Ryder
 Salle
 Sanders
 Shover
 Sorenson
 Stevens
 Summers
 Tapper
 Van Wart
 Watson
 Wood

GREETINGS

from

The Golden Gate



SEASON'S
GREETINGS

from

Glen Hurlburt

KPO - NBC
San Francisco



Schenoravor Dzenount Yev Pari Geghant

Which Means in Armenian

MERRY CHRISTMAS and HAPPY NEW YEAR

TO ALL THE ENGINEERS

GEORGE MARDIKIAN

of Omar Khayyams

Thanks to the
Engineers

Without whom we who babble
into the mike would be nothing

IRA BLUE

KGO Sports Editor



GREETINGS

from

THE GOLDEN GATE

and

JAMES ABBE

BEST WISHES

TO THE

ENGINEERS

Elmer W. Peterson



Best Wishes

from

DWIGHT NEWTON

"Schoolcast"

"Newton and the News"

NBC — SAN FRANCISCO



Holiday Greetings

from

JANE LEE

"The Woman's Magazine
of the Air"

NBC

Season's Greetings

from

Tom Gerun

Frank Martinelli

"BAL TABARIN"

COLUMBUS AT CHESTNUT

SAN FRANCISCO

GREETINGS

to the

Boys we can't do without



THE NBC PRODUCERS

DAVE DRUMMOND

NOEL FRANCIS

DICK BERTRANDIAS

San Francisco

SAM DICKSON

GEORGE SNELL



Season's
Best Wishes

to all the
ENGINEERS

Ann Holden

San Francisco

HOLIDAY
GREETINGS

to

NABET

from

Phil Bovero



Thanks Again

to the powers
behind the controls

Henry Schacht

KPO — San Francisco



Season's Greetings

to the Engineers

from

Greig and Barbara McRitchie

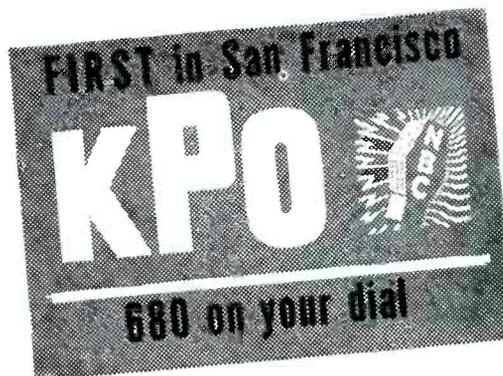
BULLETIN LEAD ALL
 SAN FRANCISCO, OCT. 15-(NBC)-KPO, THE ONLY 50,000 WATT STATION WEST OF SALT LAKE CITY, NORTH OF LOS ANGELES, SOUTH OF SEATTLE AND EAST OF MOSCOW, NOW HAS COMPLETED ITS RECONVERSION TO A PEACETIME NEWS BROADCASTING POLICY GEARED FOR MAXIMUM SERVICE AND INTEREST TO ITS HUGE AUDIENCE. THE OVERALL COVERAGE PLAN, IN THE WORKS EVER SINCE V-J DAY, IS BRINGING HIGH PRAISE FROM KPO LISTENERS, ACCORDING TO TOP RANKING RESEARCHERS. THE NORTHERN CALIFORNIA AUDIENCE HAILS PARTICULARLY THE MARKET AND WEATHER SERVICES OF THE NOON NEWS FOR HOME AND FARM EVERY WEEKDAY AND HENRY ~~SEKEL~~ SCHACHT'S FARMERS DIGEST DAILY AT 6:15 AM. SURVEYS ALSO SHOW STEADY POPULARITY FOR FLOYD FARR'S DAILY SUNRISE NEWS AT 6:45 AM AND HIS 5:30 PM NEWS WEDNESDAY THROUGH SATURDAY, WITH CAREFUL COVERAGE OF THE BAY AREA IN ADDITION TO COMPLETE WORLD AND NATIONAL NEWS EXERTING THE PULLING POWER.

EXPERT ANALYSIS OF THE WORLD SITUATION AND THE NATIONAL ECONOMIC PICTURE IS CONSTANTLY INCREASING THE LARGE AUDIENCE OF COMMENTATOR ELMER PETERSON AT 5:45 PM WEDNESDAY THROUGH SATURDAY. PETERSON, A VETERAN FOREIGN CORRESPONDENT WITH MANY YEARS OF EXPERIENCE IN EUROPE AND THE ORIENT, HAS BEEN JOINED ON KPO'S COMMENTATOR STAFF BY RALPH HOWARD, WHO COVERED THE BIKINI BOMB TESTS ~~XXX~~ FOR NBC. HOWARD, FORMERLY A WAR CORRESPONDENT IN EUROPE AND A WASHINGTON REPORTER, IS ATTRACTING A FIRM FOLLOWING TO HIS NEW DAILY COMMENTARY AT 7 AM.

DIRECTING KPO'S NEWS RECONVERSION IS JOHN THOMPSON, FORMER NEWSPAPERMAN, UNITED PRESS STAFFER AND NORTHWESTERN UNIVERSITY INSTRUCTOR, WHO SUCCEEDED BERT SILEN AS MANAGER OF THE NBC NEWS AND SPECIAL EVENTS DEPARTMENT IN SAN FRANCISCO. PACIFIC EXPERT SILEN RETURNED TO MANAGEMENT OF KZRH IN MANILA FOLLOWING ITS LIBERATION FROM THE JAPS. THOMPSON BROUGHT WITH HIM NINE YEARS EXPERIENCE IN DOMESTIC COVERAGE AS ASSISTANT MANAGER OF NEWS AND SPECIAL EVENTS OF NBC'S CENTRAL DIVISION IN CHICAGO.

(MORE)

DL215PPS
 SAM HAYES, MORGAN BEATTY, H. V. KALTENBORN, FLEETWOOD LAWTON AND RICHFIELD REPORTER.



Holiday Greetings
from
Your Auntie Lolly

ALICE MARINO
ABC — San Francisco



HC CAPWELL'S
BARBARA LEE

Sent me to bring you
Greetings and Appreciation

from

Ruth Anderson



Yuletide Greetings

to

N A B E T

from

San Francisco Chapter



AMERICAN
FEDERATION OF
RADIO
ARTISTS

FORMAT FOR KGO NEWS

MUSIC: UP AND OUT

ANNCR: It's Christmas, 1946, and time for KGO and its staff of reporters to bring you another complete roundup of ABC News.

First . . . the HEADLINES of this HOUR and any HOUR.

(HEADLINES)

SEASON'S GREETINGS AND THANKS TO THE ENGINEERS!!!
(commercial)

ANNCR: This is Frank La Tourette, Vic Reed, Jim Moser, Nick Allen, Hu Elliott, Frances Krauss, and Adele Timpson reporting from the KGO newsroom in San Francisco.

MUSIC: UP AND OUT

To Our Engineers and Technicians

GREETINGS



Radio's pioneer weekly one-hour broadcast of fine music, now in its twenty-first year on the air. Shown above is the San Francisco Symphony Orchestra, Meredith Willson conducting, at the recent celebration of the 1000th Standard Hour in San Francisco's famous War Memorial Opera House, broadcast by NBC.

THE STANDARD HOUR

(Affiliated with the Standard School Broadcast Course in Music-Enjoyment)

STANDARD OIL COMPANY OF CALIFORNIA

Broadcast Engineers' Journal **78** Yearbook • December, 1946

Again you've proved to us, that
the best friends the broadcaster
has are the men behind the glass

BROMLEY HOUSE

WILTON HAFF

"DUKE" LIDYARD

Now with

GREGORY AND HOUSE, Inc.

712 Citizen's Building

Cleveland 14, Ohio

Telephone
Dearborn 4774

Cable Address
FREQUENCY, Atlanta

**Van Nostrand
Radio Engineering Service**

339 Leland Terrace, N. E.
Atlanta, Georgia

- ONLY organization specializing exclusively in
frequency measurement service
- Accuracy • Dependability • Personal Service

A service of distinction for the discriminating station.

Established 1933

Nearly 150 affiliated stations

KEEP US ON THE LEVEL

Dud Manlove

John Grover

Eddie King

Budd Heyde

Bill Roddy

Hal Wolf

Web Witmer

Clarence Leisure

Floyd Farr

Steve Robertson

Russ Snow

NBC ANNOUNCERS SAN FRANCISCO

Greetings from the Nation's Capital



Washington Chapter . . . N. A. B. E. T.

WRC Studios

BUTTS	MORGAN
CHEW	NEWMAN
CLARK	ROGERS
FUGAZZI	SEARS
GODWIN	SIMMONS
HAMILL	SMALL
HOGAN	TERRELL
HENRY	THOMASSON
HILDRETH	ULLMAN
JONES	WARD, W. C.
KRISS	WEAVER
McCLELLAND	WILLIAMS, K. B.
McCOLLOM	

Recording

CLOSE	McGINLEY
MELINE	SHENTON

WRC Transmitter

LEISNER	STAHL
MEYERS	YATES

WOL Studios

ANDRICK	HALLAM
BALLINGER	HERMAN
BELL	KAPLAN
BELOTE	NEFF
COOPER	WARD, M. E.
CORNELL	

WOL Transmitter

BOGAR	MILLER
MENGLE	STARK

WMAL Transmitter

BURG	NAGY
FISHER	WILLIAMS, J. C.
HUNTER	

Members at Large

POWLEY, A. T.	ALLEN, C. A.
---------------	--------------

Hi, Fellas,

Thanks very much—

Hope you can stand it

Another year



JIM GIBBONS



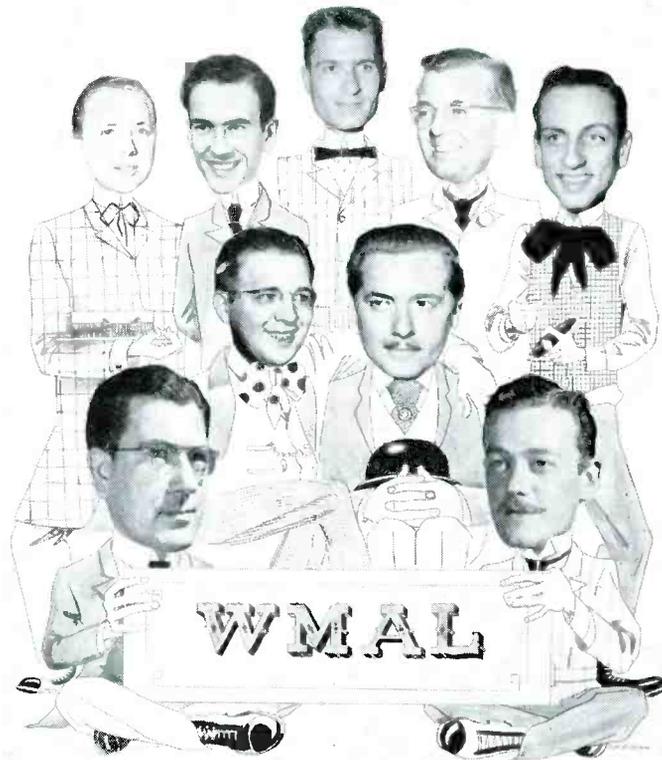
X = [(AFRA) + (NABET)]
(WASHINGTON) (WASHINGTON)

X = PERFECTION

AMERICAN FEDERATION OF RADIO ARTISTS
WASHINGTON LOCAL

G
R
E
E
T
I
N
G

WMAL
ABC



Top Row:

DON ROSS
ROGER CONWAY
LEE DAYTON
GORDON SHAW
TED DUNLAP

Middle Row:

RAY MICHAEL
JACKSON WEAVER

Bottom Row:

HEAROLD STEPLER
KEITH JAMESON

COMPLIMENTS OF

Capitol Radio
Wholesalers

2120-22 14th Street, N. W.

Washington 9, D. C.

HO bart 0800

"The Capitol's Oldest Parts Distributor"

TO THE ENGINEERS:

*"thanks - very much!
from
Bankhage*

RADIO PRODUCTIONS

PUBLIC RELATIONS

*leo j. paulin
and associates*
1627 K STREET NORTHWEST
*washington 6
d.c.*

Washington's Foremost Producers of
Live and Transcribed Radio Shows

*Cordial
Seasons Greetings
to all Members of
N.A.B.E.T.*



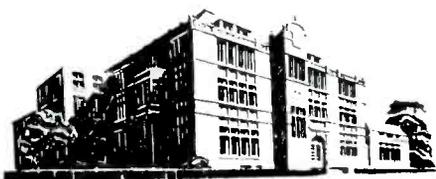
The Evening Star Station
W M A L
BASIC ABC NETWORK

*To The
Friends
of CREI*

HOLIDAY GREETINGS

from

**E. H. RIETZKE
and the
CREI STAFF**



**CAPITOL RADIO
ENGINEERING
INSTITUTE**

16th Street and Park Road, N. W.
Washington 10, D. C.

Luv - N - Kisses



NANCY OSGOOD

DAVID BRINKLEY

Season's Greetings

from

DUTCH BERGMAN

WRC... Washington

Bjorn Bjornson



WASHINGTON

We love our dear old N.A.B.E.T.
Like Douglas* loves his beer;
So here's good thoughts and wishes,
Through the coming year

NBC—WASHINGTON ANNOUNCERS

JOHN BATCHELDER
CHARLES BATTERS
STEVE DOUGLAS*
STU FINLEY

DON FISCHER
KENNEDY LUDLAM
WALTER RANEY
HOLLY WRIGHT



Christmas Greetings
TO THE
NBC - Washington NABET Gang
SPECIAL THANKS
Johnny McCollom



BILL HERSON

Raymond Swing

Management THOMAS L. STIX and J. G. GUDE

Compliments of

ED McINTYRE

AND

GENE ARCHER



Another Letter to the Editor

2151 Drake Drive
Oakland 11, Calif.
October 8, 1946

Dear Ed.:

The activities of various amateur members of NABET have been discussed in Chapter news from time to time and much has been suggested in the Journal to promote more QSO's between members. For instance, it was suggested that members CQ NABET which is a fine idea, but not very practicable inasmuch as NABET members are in such minority on the bands that thousands of other amateurs would think we were "Nuts" or something. To accomplish the purpose of more contacts between members it would seem that the best solution would be to list on one page in the Journal the calls of all members as follows:

Call Letters	Name	Chapter	Station
--------------	------	---------	---------

This could be quickly referred to on contacts or CQ's heard for check if a member when desired. No doubt many members have already contacted each other and were never aware of it. Everyone knows that we all don't mention that we are a NABET member on every contact, although the conversation may get that far at times, it certainly would not when conditions are poor or signals weak.

This could be carried a little further to include a list of non-members on the same page which might include such personnel as Engineering Executives, Announcers and other amateurs working at stations staffed with NABET personnel. The non-members could be listed separately as follows.

Call Letters	Name	Department	Station
--------------	------	------------	---------

Meet NABET'S Attorney Martin F. O'Donoghue

Martin F. O'Donoghue is the senior member of the law firm of O'Donoghue, Dunn & Mills, of Washington, D. C.

Mr. O'Donoghue received his BA from Holy Cross in 1923, and his LL.B. from Georgetown University Law School in 1926.

He has been practicing at the District of Columbia Bar since March, 1926. He has acted as counsel for the International Union of United Brewery, Flour, Cereal and Soft Drink Workers of America for the past twelve years, and as counsel for the United Association of Journeymen Plumbers and Steam Fitters of the United States and Canada, A. F. of L., for the past four years.

Mr. O'Donoghue has also acted as counsel for the Operative Plasterers and Cement Finishers Association and the International Union of Bridge, Structural and Ornamental Iron Workers. He is also counsel for the Electric Utility Foremen's Association, an independent union of supervisors of the Potomac Electric Power Company of Washington, D. C.

Mr. O'Donoghue has also acted as Professor of Law at Georgetown University Law School for approximately ten years, giving lectures in the Law of Trusts, Mortgages, Insurance, Domestic Relations, and Evidence. He served as Professor of Law at Georgetown University from 1934 until 1945.

This page of calls should be republished periodically to keep it up to date.

The problem of getting the data could be handled in several ways. One would be for the Chapter Chairman to take it on, or to appoint a member of the Chapter to do so and forward the information to you to arrive before a certain deadline. At any rate, this would no doubt, be a boon for more contacts between members and non-members working at NABET Stations. Perhaps it would be well for you to decide upon a procedure and outline it in an article in an early edition of the Journal for our guidance.

Best regards,
(Signed) Herb Kramer, KGO-TE, W6ECW

IDA CLARKE

ORGANIST

Featured on

THE MUSIC BOX



To the Engineers:

Thanks and a Happy New Year

MARTIN AGRONSKY

ABC Network . . . Washington

Thanks a Lot, Fellas

KEN EVANS

"WORLD NEWS"

for

Christian Heurich Brewing Co.

through

WMAL

Washington





In behalf of students and graduates of the National Radio Institute, and the N. R. I. Staff, I extend most cordial Season's Greetings to the N. A. B. E. T.

J. E. Smith
President

NATIONAL RADIO INSTITUTE, WASHINGTON, D. C.

*We wish to express our best wishes for the holiday season
to our friends, the engineers of NBC - WRC*

Burt's Trans-Lux Restaurant

Radio Center, Washington, D. C.

Burt Lopatin • Margaret Lopatin • Betty Conrad

Thanks, Again . . .



RICHARD HARKNESS

NBC, Washington

Greetings from



MORGAN BEATTY

"And that's THE NEWS OF THE WORLD"

Greetings from . . .



"Eid in Washington"



Robert McCormick

NBC, WASHINGTON



*"A Happy
Good Morning
to You"*

**HAPPY
JACK TURNER**

KOA and NBC

An **AFRA-davit** to NABET
DENVER LOCAL

American Federation of Radio Artists

wishes you

CONTINUING SUCCESS

Rhapsody of the Rockies

from

Out of the West

MILTON SHREDNIK — KOA

"Music by Shrednik"



**Season's
Greetings**

**EVADNA
HAMMERSLEY**

"A Rhapsody of the Rockies"
NBC Network

"KOA Home Forum" — KOA

"May Company Radio Shopper"
KOA

Season's Greetings

from the

PIONEER RADIO DISTRIBUTOR

of the Rocky Mountain Region

Distributors of

Radio Corp. of America Products and Audiodiscs

Inter-State Radio and Supply Co.

1639 Tremont Place

Denver, Colo.

Established 1921

Greetings, Gang from

JANET FEE and IVAN SCHOOLEY



Thanks a million for sending us out on the air so well for the Solitaire Serenade and Treasure Trails of Melody—not to mention Rhapsody of the Rockies with FEE.

Season's Greetings

To the **ENGINEERS**

Western Electronic Laboratories Co.
Distributors of Electronic Equipment

DENVER, COLORADO

913 18th Street

CHerry 7321



Greetings from . . .

VIC ROBY

and his transcribed
"Verse and Vice Versa"

NBC - Denver

Season's Best Wishes

FROM

**Rocky Mountain Chapter
of
NABET**

KOB • KOA • KFKA

Season's Greetings

Cocktails

**CACTUS
GRILL**

SAM and NATE FELD

Lunches

Come in and see the gang
In the Mack Building
Just Across From NBC

CLEVELAND

Greetings from the

CLEVELAND CHAPTER

W T A M

STUDIOS

A. M. McMahon	Cecil S. Bidlack
J. J. Francis	Charles E. Ames
Thomas C. Cox	John W. Hyatt
Harry B. Caskey	John Wilhelm
B. C. Pruitt	Howard A. Spiller
F. E. Whittam	C. W. Smith

TRANSMITTER

Ross Plaisted
John A. Cheeks
Arthur H. Butler
A. B. Stewart
Harold V. Brandt
W. R. Jerome
Earl Holl
Gilbert Buchanan
Franklin H. Anthony

W H K

STUDIOS

Norman M. Drysdale	A. J. Pekkola
Fred Y. Best	Charles Carment
Fred L. Barrett	Paul R. Quay
David Irwin	James F. Egan
James M. Carment	A. Rajnicek
James F. Ulrich	R. Maczka
P. C. Tuttle	B. Koebnitz

TRANSMITTER

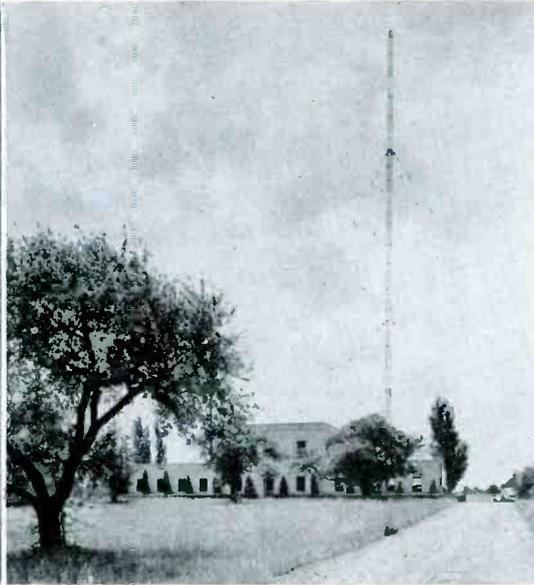
Hugh B. Okeson
Mills T. Bennet
Alvin C. Draper
James Sturtevant
Paul S. Van Deusen

W H K K , Akron, Ohio

Willet E. Batchelder	C. F. Lustic
B. C. Mattox	H. A. Jonard
Ilene Mintz	T. F. Smith
Berthil V. Berg	J. G. Hammerlin



S. E. "Eddie" Leonard
WTAM's Engineer in Charge



WTAM's transmitter at Brecksville, Ohio.



Vernon H. Pribble, general manager of
the Cleveland division of NBC.

"WTAM — 1100 on Your Dial" By Tom Tarbox

CLEVELAND's most powerful radio station, WTAM, is more than just another broadcast station—it's an institution.

There is so much to be written of WTAM, one scarcely knows where to start. As good a spot as any, then, is with the lads who keep the programs on the air—the engineers. And, you cannot talk or write about engineers without the name "Eddie" running through your mind. "Eddie" is S. E. Leonard, chief engineer. In fact, when a member of the radio profession thinks of WTAM, he also thinks in terms of "Eddie."

Eddie served his hitch in World War One as a Chief Radio Electrician in the Navy. When that unpleasantness was over, Eddie joined the Radio Corporation of America and was placed in charge of station construction in the Great Lakes division of RCA.

Eddie was soon destined to meet T. A. Willard, founder of the Willard Storage Battery Company, and that was all he needed to boost him along on the path to success in his chosen profession. Eddie installed a radio receiver in Willard's home; Willard became interested in the vast possibilities of radio, and hired Eddie to help him develop radio storage batteries.

That was back in the headphone days when you and I were fooling around with such things as loose couplers, variometers, variable condensers—and, alas, Radiotron and Cunningham tubes that set you back five to seven-fifty apiece every time you soldered the wrong wire in the right place!

Willard and Eddie were granted a license and together built an amateur broadcasting set in the basement of the main office of the Willard Company on Taft Avenue, near East 131st Street, Cleveland. Clevelanders will remember their call letters—8CJS.

It was Eddie's idea to operate a commercial station with the batteries he had helped to perfect, and so another Leonard dream came true on September 26, 1923, when WTAM went on the air for the first time. It was the first station in the United States to be granted the right to broadcast with 1500 watts. Today it operates on 50,000 watts and the transmitter, antenna and transmission line is built to carry 500,000 watts.

WTAM shared its time on the air with another station, WEAR, until 1926, when the Willard Company bought out WEAR. The Cleveland Electric Illuminating Co. purchased both stations in 1928 and WEAR was discontinued while WTAM jumped to 5,000 watts.

WTAM moved into its fourth home—this time the Auditorium Building—in November, 1929. It was moved to its present address, the modern, roomy, air-conditioned NBC Building at 815 Superior

Avenue, on February 19, 1938. In 1930, the station was purchased by NBC and since has been one of the network's most important outlets.

In each of these moves and improvements the genius of Eddie Leonard was always apparent. Eddie, however, is always the first to give full credit for a serene and efficient station operation to his staff which currently consists of John D. Disbrow, operations supervisor and assistant engineer in charge; Alvin McMahon, control room senior supervisor; Thomas C. Cox, supervisor; Jesse J. Francis, assistant control room supervisor; and Harry B. Caskey, Bert Pruitt, Frank Whittam, Cecil Bidlack, Charles Ames, John Hyatt, John Wilhelm, Howard Spiller and Charles W. Smith, studio engineers, and Beverly Venner, secretary.

C. C. Russell, station engineer, is in charge of WTAM's 50,000-watt transmitter at Brecksville, Ohio, about 17 miles from the station. A. H. Butler is assistant station engineer at the transmitter. Others on the staff there are R. J. Plaisted, J. A. Cheeks, A. E. Stewart, H. V. Brandt, W. R. Jerome, Gilbert L. Buchanan, Earl Holl, T. H. Anthony, engineers, and Chester D. Pay, watchman.

Guiding light to his brood at WTAM is handsome, dashing, Vernon H. Pribble, who came to radio by way of advertising. He was associated with the Chicago Tribune and later was general manager of WGN in Chicago. He headed the radio department of the Stack-Goble advertising agency for three years until he came to WTAM as general manager of NBC's Cleveland Division December 20, 1934.

If Vern has a hobby of more consuming interest than golf it is WTAM. His heart and soul are wrapped up in the station and the key words to his (and the station's) success are "public service."

WTAM is noted for the number of stars it has produced. Among these are Guy Lombardo, Gene and Glenn ("Jake & Lena"), Tommy Riggs and Betty Lou, Eddie Peabody, Fred and Tom Waring, Phil Spitalny, Smiling Ed McConnell, Singin' Sam, Lum and Abner, and many others.

Werner Janssen, composer-conductor, went on from WTAM to gain national fame, and on the "front office" side of the picture there is, of course, John F. Royal who left his post as station manager in 1931 to become NBC's vice president in charge of programs. Mr. Royal is now vice president in charge of Television for NBC.

BEST WISHES

TOM FIELD

WTAM

Happy Holiday, Fellas!



tom collins haley

Best Wishes

BRYON WADE

"Personalities in the News"

WTAM

CLEVELAND



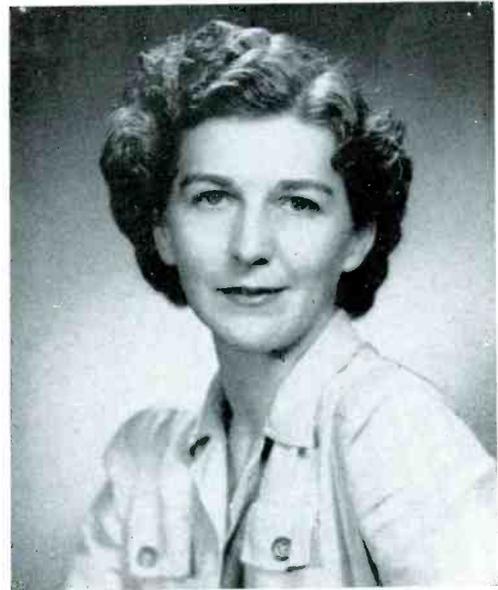
JOE MULVIHILL

Announcer, **WTAM - NBC - Cleveland**

Merry Christmas and the Best of Everything

To the Best in the Business

— **THE ENGINEERS** —



Greetings from

VIN LINDHE

(Betty Brownell of Armchair Planning)

WTAM

Here's How I Look to You

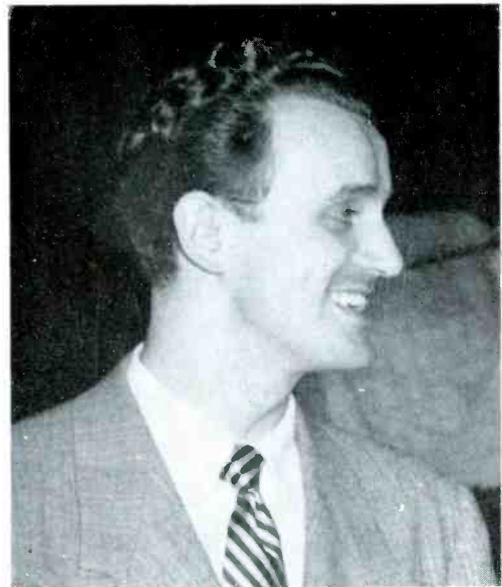


AND I LOOK TO YOU
TO HAVE THE SEASON'S BEST

BILL MAYER

WGAR

"Production Up 100%"



HOPING THE SEASON PRODUCES
100% OF THE BEST FOR YOU AND YOURS

JOHN SAUNDERS, Production

WGAR — CLEVELAND

best wishes

carolina local, a. f. r. a.

wptf
raleigh

wdnc
durham

Compliments

Your Daily
Devotional
Program

715 AM — WPTF — Dial 680

50,000 Watts

TOMMY STEELE, Director

More than eight successful years!

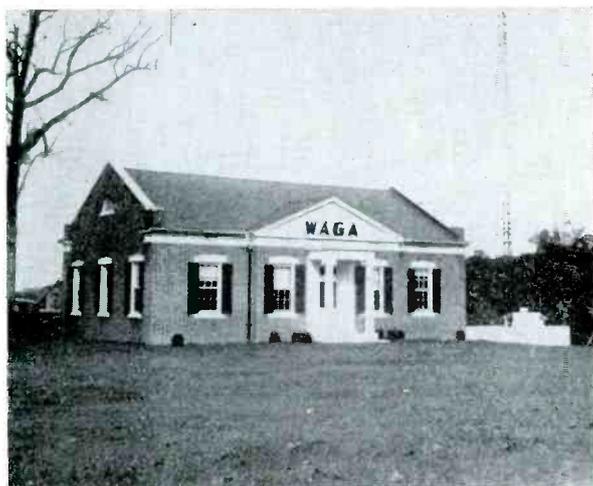
Smooth Sailing Always
HOMER A. BRIARHOPPER



And His "Dixie Dudes"

Heard Daily Over WPTF, Raleigh, N. C.

SEASON'S GREETINGS



from

The ATLANTA SECTION of NABET

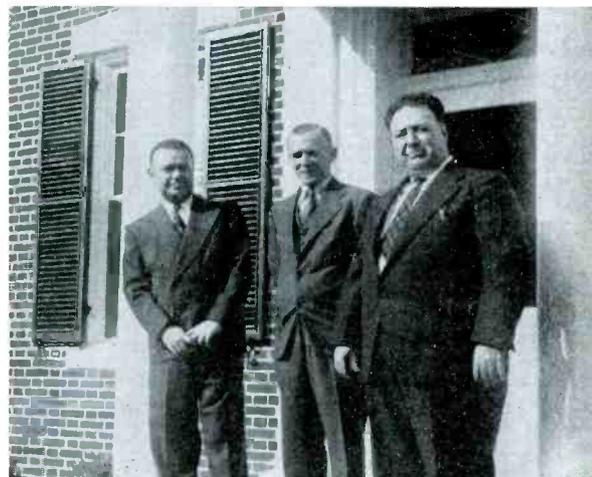
WAGA

ATLANTA, GA.



Studio Group, Left to Right: Roy G. Dodson, Vasco C. Rhoden, Jr., Rudolph B. Spivey, Marcus W. Galyean, Orbra W. Harrell, and Jack C. Curry at the control board.

Transmitter Group, Left to Right: Donald D. Brooks, Clifford H. Rogers, and Broughton W. Benning.



**Baltimore Chapter — NABET
Extends Greetings**

from



FORT McHENRY, BALTIMORE, MD.

The Home of the Star-Spangled Banner

In Behalf of It's Members

- | | |
|--------------------|------------------------|
| Otis R. Beauchamp | Richard A. LaCourse |
| Gilbert G. Boehl | John W. Lappe |
| Harry M. Boone | Frank J. Matrangola |
| Robert D. Briele | Henry R. McNally, Jr. |
| Raymond N. Chell | Howard H. O'Day |
| O. R. Claus, Jr. | Oliver H. Oliver |
| William T. Doster | R. W. Parks, Jr. |
| August E. Eckels | Albert W. Rhine, Jr. |
| Albert C. Goldbach | L. Paul Ruckert |
| Norman A. Hedrick | C. Robert Sherrer |
| Frederick M. Himes | H. F. Stockslager, Jr. |
| William R. Hoos | Edward V. Stover |
| Samuel H. Houston | Lawrence H. Taylor |
| Frank R. Jones | <i>Inactive</i> |
| C. Edward Jung | R. E. Carpenter |
| William D. Kelly | Francis V. Guidice |

Representing

Baltimore Radio Stations

WFBR - ABC — WITH — WCBM - MBS

**Holiday Greetings
from
Martha Ross Temple**

"It's Fun to Cook"
"Everywoman's Hour"

WFBR - ABC . . . BALTIMORE



This is
RUSS ANDREWS

announcing
BEST WISHES

over
WFBR - ABC Baltimore



**SEASON'S GREETINGS
from
Ginny and Gene
Webster**

WFBR - ABC — Baltimore
Duo - ing

"Song and Story"
"Club 1300"
"At Home With the
Websters"



Best Wishes from
Carroll Warrington

Composer and Arranger
PIANO and ORGAN

for
"SPOTS"
"THEMES"
"PROGRAMS"

WFBR - ABC Baltimore





NEWS of BALTIMORE

By Alex Beuchamp

THE man we have elected to represent us as a group, is a quiet, soft spoken man, and has a ruddy complexion. He has a sparkle in his eyes that let you know he is alert at all times—always ready to do his duty and accept the facts.

To know C. Edward Jung, as we in Baltimore know him, is to know his background. Ed, as he is known to his friends, was born in Baltimore on January 21st, 1899, and has lived here ever since, except when his family moved to Yonkers, N. Y., returning to Baltimore in one year. He received his education in the public schools and City College, finishing at the Baltimore Business College.

Ed says, "from the first time I can remember, such things as doorbells, telephones, galvanic batteries, yes, even phonographs were a fascination to me—driving my folks to distraction with many queer sounds and noises from electric gadgets. As I became older, and coming from a supposedly more staple family, I was influenced along the line of Pharmaceuticals."

"I considered myself very fortunate—still working for the same druggists seventeen years, and the hope that some day, the business would be mine, as the two druggists were aging and had no close relatives to whom the business would be willed. I was told by the druggist, that the business would eventually be mine.

"With this prospect in view, and feeling financially secure, I married. Our home was soon blessed with a son, I was really sitting on top of the world. Then came the depression and bank holiday. Our savings diminishing—the druggists cutting their own expenses—found me beating the pavements, as did many others.

Money and patience fast dwindling, and my constitution exhausted in a futile search for employment, I finally landed a job.

It was then the breweries started full time work and taking on men. I went into handling sixty to eighty pound kegs, three and four high. Me, who hadn't raised anymore than a 3 oz. bottle of medicine to a counter, working as a racking-room helper—quite a let down. More than once I came home barely crawling—and it wasn't from consuming the beverage. Believe it or not!

The wife insisted as I was practically starting life all over, why not start from the beginning. 'Do and study something you have always wanted—I'll help as much as I can,' said she. So we did. Working at the brewery all day from seven in the morning, till four in the afternoon—hurrying home to eat, dress, and get to Commercial Radio Institute by seven in the evening for a three hour session, on mathematics, electron theories, and the practical experiments on radio circuits. Rushing home again to fall in bed, almost too tired to sleep. I can't say I heard all the lectures at school, either.

Several years we existed in this fashion, then came the final examinations—which were nothing less than nightmares. Then, there was the job of trying to get into the game. No one wanted

an inexperienced man—for this, I'll always be grateful to my present boss, Chief Engineer Wm. Q. Ranft. What a man for taking a chance! I am sure I have since tried to prove the worth. I have recently completed a course with the Capitol Radio Engineering Institute of Washington, D. C., which has proven very valuable. So my slogan is: Always stick though the going be hard. At all times keep an open mind, and bear no grievances."

Baltimore, the sixth city in population, and being the largest port in the country, next to New York, has been first in many achievements. Its people have been pioneers in many walks of life, and they are still forging ahead, seeking many new ways to conquer the unknown frontiers of medicine, science, and of life itself. They have produced many wonders in our modern times—like a magician mystifying an audience.

The best wonder produced in modern times, is Radio Broadcasting—which can only be surpassed by the innovation of television.

One of Baltimore's pioneers in the broadcast field is WFBR. Being the first Radio Station to broadcast the voice of a President. (Pres. Herbert Hoover, from Fort McHenry.) First to successfully broadcast the human voice from an aeroplane while in flight. And many others.

WFBR is also first in the production of local air shows, which are in close competition with the networks.

One of their shows (Club 1300) started on its kilocycle journey, October 7, 1940, and is the best known, best liked program in Baltimore. The show is aired daily except Sunday, from 1:05 to 2:00 p.m., featuring Marion Dawn, Gene Webster, vocalists, a barber shop quartette, a ten piece orchestra, and Carroll Warington at the organ. Last, but not least, our MC, Henry Hickman.

Irwin Elliott, former MC of the Club, is now MC'ing on CBC (County Fair).

Another top show is the original Quiz of Two Cities, between Baltimore and Washington, aired every Wednesday. Henry Hickman is the Baltimore quiz master, an amicable person, with strong, square shoulders. He must be to be able to stand the many innuendos thrust upon him by his opponent in Washington, known to the listening audience as Jay Owen.

The Quiz of Two Cities has been on the air over WFBR eight years. Over this long period of time, the demand for tickets to see the show is so great, the mailing list is always several weeks behind.

WCBM is another pioneer in Baltimore broadcasting. It has the honor of having the oldest telephone-jack-pot program (Dialing for Dollars) on the airways, hereabouts.

(Continued on Page One Hundred One)



Smiley Herb — Buzz — Jolly Pickett — Sugar Bill — Tony

STARS of STAGE and RADIO — WFBR - ABC — BALTIMORE

Season's Greetings



JOLLY PICKETT

and His Radio Jamboree Gang



Compliments of

COMMERCIAL RADIO INSTITUTE

38 West Biddle Street

Baltimore, Maryland



Season's Greetings



Radio Electric Service Co.

RADIO AND ELECTRONICS DISTRIBUTORS

3 N. Howard St.

Baltimore 1, Maryland

LExington 3835 - 6



BALTIMORE

(Continued from
Page Ninety-nine)

Homer Todd, the major domo of the show, is known to his audience as Mr. Fortune. Homer is also Deep Sea Dan on a program of the same name.

Eddie Fenton, Sports Editor, is doing a very fine job. His sports stories are a real credit to the sports world.

Jerry Mares, News Editor, has a very large responsibility upon him. Besides editing news to be broadcast in English, Jerry also translates it into several foreign languages, for the benefit of the foreign born citizens.

Lew Corbin, Promotion. And can that guy promote! He can promote anything from a lone cigarette to next week's salary.

Bill Rock, Production, is a fellow snipe hunter—he's been left holding the bag.

Tom Severin, Musical Editor. His job is to ride in the groove of the record with the needle, to lift it over the censored parts. Careful, don't get stuck.

Hellen Hall of the woman's page, keeps the women of Baltimore well informed on how to dress, eat to stay thin, and how to wear those hats.

Eleanor Pechules, Lady of the children's corner. Knows her child psychology. You have to—to keep ahead of the modern child.

Mike Murrary, Special Events Director, wears a traffic officer's uniform when directing—Oops! My mistake. He's a major in the army.

Newell Warner, dean of the announcing staff, director of the Kiddy Club and Our Baltimore Program.

Several years ago, the Moylan sisters were on the network, and heard locally over WCBM, and sponsored by H-O Quick Oats. The network announcer gave the cue for the local announcer to tell where you could buy the sponsor's product. There was a short pause before the voice of Newell Warner proclaimed—"and you can buy H-O Quick-oats at the Food Fair Markets, the Acme Markets and the A and Foo Pea stores."

The other day at WITH, immediately following the morning devotion program, where the scriptures are read by a minister, they played a recording from George Gershwin's Porgie and Bess. The first line of the lyrics were: It ain't necessarily so, what you read in the Bible.

In the early part of the war, when there was a scarcity of the materials in making records, many of the record dealers were buying old, worn-out records, so they could be melted and be used in making new ones. One of the sponsors on WITH had a spot announcement reading like this: Fred Walker still pays cash for old records. The announcer who usually read the spot, came on the air one night like this: "Fred Walker will still pea cash for old records."

Wearing a Chip

I wouldn't be a fellow
With a chip upon my shoulder,
To dare the first I'd meet—
To prove if he was bolder.

I wouldn't even be the guy
Who'd nurse and hold a grudge.
To me, that would seem so silly—
Even a closest friend will judge.

Cheer up friend, and be a sport—
Life is sweet, but also short.
Lose that frown, and don a smile—
Just live at peace for awhile.

—Alex Beauchamp

Our Loudest "Alarm Clock" Regards

From the "Morning in Maryland" Boys of

WFBR, Baltimore

m. c. RALPH POWERS

ass't m. c. PHIL (Cream Puff) CRIST

To Our Many Friends in Radio

We Extend

"Season's Greetings"

"A Hearty Welcome . . . '73's"

"For Everything Best"

KANN-ELLERT ELECTRONICS, Inc.

Distributors of Sound Radio and Electronic Equipment

9 South Howard Street, Baltimore 1, Md.

Season's Greetings

WHOLESALE RADIO PARTS CO., Inc.

WHOLESALE DISTRIBUTORS

National Advertised Radio Products

311 W. Baltimore Street, Baltimore, Md.

Telephone: LExington 9708

S
E
A
S
O
N
S



NICK CAMPOFREDA
SPORTS COMMENTATOR AND WRITER

Originator
"SPORTFOLIO" "QUIZ 'N' TELL"
"SCHOLASTIC SCRAPBOOK"

G
R
E
E
T
I
N
G
S

F
O
R
T
H
E

T
H
A
N
K
S



LONNY STARR
"SCOOP TO YOU"

on WFBR - ABC — Baltimore

D
I
A
L
W
O
R
K



*Again — My Heartiest
To the Guys who work the hardest*

JACK DAY

Announcing WFBR - ABC, Baltimore

Merry Christmas
Happy New Year



Claudine and Bill Roche

Baltimore, Md.



Announcing • Acting • Writing • Producing



Season's Greetings

From the Engineers

HOLLYWOOD CHAPTER

N.A.B.E.T.

NBC
Hollywood

ABC
Hollywood

KFI
Los Angeles

KFSD
San Diego

KECA
Los Angeles

I know, Jack, when

I started out with

you thirteen years

ago I was just a

little nobody, and

look at me today,

a big fat slob.

DON WILSON

Merry Xmas
and
a Happy New Year
to the
Broadcast Engineers



for your Electronic Supplies

DOW RADIO, Inc.

1759 E. Colorado, Pasadena 4, Calif.

Dial — RYan 1-6683

Hya, Fellas!

Keep your Levels up

FRANK NELSON

Compliments of

ALVIN WILDER

Alvin Wilder • Advertising • 215 W. 5th Street
Los Angeles

JACK BENNY

OVER A DECADE OF SERVICE
to the
BROADCASTING INDUSTRY

As another year rolls around we take this opportunity to extend to our many friends in the Broadcasting Industry our deep appreciation for a successful year to come.

RADIO SPECIALTIES COMPANY

Los Angeles 7, California

Season's Greetings



E. Broox Randall & Sons, Inc.

INSURANCE

For Every Purpose

5901 Sunset Boulevard Hollywood 28, Calif.

Thanks to the swell guys behind the dials

from

Edward
Jorgenson

West Coast
News
Analyst
Los Angeles

*It isn't what
I look like,
But what I
say that
counts.*

Back in January from a 3 months vacation

Personal direction of Phil McHugh
Santa Monica 61335

Hats Off to the Engineers!



... And speaking of hats (which I was, just to get this plug in), I'm kinda tired of trying them on ... so I'm starting to sell them.

Remember that, will ya, fellas ... and when the little woman puts the bite on you for a new lid, tell her to look for the ones with the Tom Breneman label. They'll be in all the leading stores any day now. They're not gag hats, either ... but really beautiful, wearable *chic chapeaux!* At least that's what my designers tell me.

Keep those levels running high ... but don't knock our hats off!

TOM BRENEMAN



Here's looking at you . . .

CHARLES "BUD" DANT

Greetings

HAROLD CURTIS

7th year, Organist over ABC

Last 2½ years with

"Coronet Story Teller"



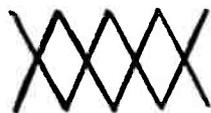
Thanks, for Everything, Fellahs!

Sincerely

HARRY VON ZELL



William Morris Agency, Inc.



New York • *Chicago* • *Hollywood*

Season's Greetings

V. T. RUPP CO.

1150 West Olympic Blvd.
Los Angeles

Aldo Bussi — Engineer

Representing . . .

AUDAK
AUDIODISCS
BURGESS BATTERIES
CARDWELL CONDENSERS
MACHLETT TRANSMITTING TUBES

Season's Greetings

To Our Many Friends
The Broadcast Engineers

FROM

"The Boys Around the Corner"

HOLLYWOOD
Radio Supply, Inc.

5521 Hollywood Blvd.

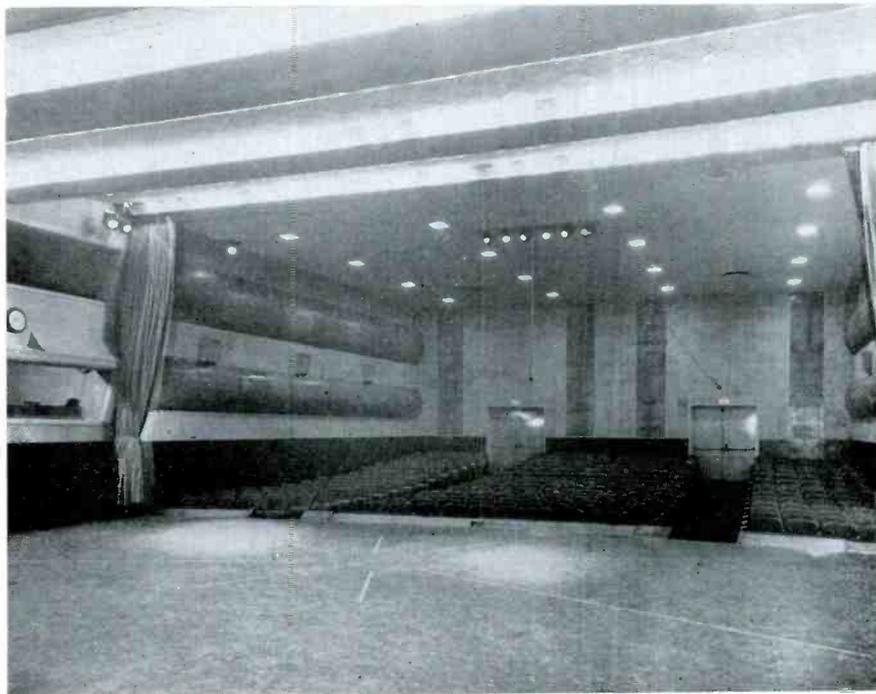
Hollywood, Calif.

Thanks to you all and

Season's Greetings

from

FREDDY MARTIN



A MERRY CHRISTMAS and
 a HAPPY NEW YEAR to All
from
6000 SUNSET RADIO CENTER

Hollywood's Newest Broadcast and Recording Studios

Complete Facilities for the Radio Industry

Recording Studios	Audience Studio	Hi-Fidelity Recording Equipment	Complete Production Facilities	Steinway Grand Pianos Hammond Organ
----------------------	--------------------	---------------------------------------	--------------------------------------	---

Washington News

By R. E. Shenton
and E. W. McGinley

ALL of which proves that a bad penny always turns up again, this time with interest! Meaning that your listless correspondents, making their bow to the loyal NABET readers this month, are only about 50% neophytes to the racket; patient readers of a couple of years ago will remember the first of the above named scribes for his feeble filibustering in this column only a short time ago. And so, television and allied arts having claimed successive correspondents, the ball has completed the circle, and yours truly(s) will take up Washington's recently vacant white space, and try to reveal all the news that fits, striving always to make our revelations of as general interest as possible . . . and so off we go!

The center inevitable (birth, marriage and death) has been running rampant hereabouts during recent weeks, and Sherman Hildreth, WRC Studios, Harold Yates, WRC Transmitter, and Charlie Fisher, WMAL Transmitter have all exchanged their wedding vows in rapid succession. The three gentlemen are back in the saddle now, and seem to be thriving nicely under the new domestic arrangement. Belated congratulations to all three, and may the obscure gods that watch over members of the broadcasting industry prevent their future progeny from getting entangled in the mayhem that is broadcasting.

Well, the Washington studios these days rather resemble the RCA television showroom, with non-trip-proof coaxial lash-ups adding a lethal note of stark reality to the picture. A majority of the New York telecasts are fed to the Nation's Capital, courtesy of A. T. & T.'s facilities, and local enthusiasts are able to get a fine preview of things to come in the near future. Prize fights, football games, and earlier, baseball contests, together with special events features and studio productions are regularly displayed on half a dozen assorted receivers here, and an elaborate system of admission for Washington citizens has been set up to enable everyone to see the wonders of the new art. Washington's own television station for NBC, WNBW, is progressing favorably, and current plans place the on-the-air date as early in 1947, which is really not far off, even at this writing. Facilities are being constructed in the swank Wardman Park Hotel, home of many prominent individuals here in town, and we understand that work is being done right now on the tower, and transmitting equipment. Office space has been inaugurated here in the downtown studios, ousting some of the previous offices to make room for the lusty, squawling infant Video. The Radio Recording office, and that of Nancy Osgood, Director of Women's Activities for WRC have been nudged across the street to a nearby office building, and local page-boys can be seen at all hours of the night and day trudging back and forth with reams of printed matter and transcriptions, merrily liaisoning the house divided against itself. All we can say is may the strides taken by the NBC branch of the Wardman Park be giant ones!

A recent newcomer to WRC is the semi-monthly publication entitled "The WRC Call Letter," and several items in the latest issue bear reprinting, or at least paraphrasing. The first concerns Dorson Ullman, one of the long-time NBC engineers hereabouts. It seems that Dorson has a birthday right about now which brings him to the age of 38. Nineteen of these 38 years have been spent in the employ of NBC, or, as the original story is headed, "Ullman Half A Lifetime At WRC." This presents a challenge—who else among you readers can boast a similar record, or one approaching Brother Ullman's? The article concludes thusly: "We believe he (Ullman) should stay with WRC for the rest of his life, first because we would like to enjoy his company longer and secondly because it would be useless for him to leave. He'd walk to WRC in his sleep each morning!" A hearty second to this statement, and an added comment—gee gee!

The second item concerns NBC Newscaster Bjorn Bjornson, and although it is irrelevant inasmuch as this is ostensibly an engineers' column, we'd like to include it nonetheless for its own merit: "Bjorn Bjornson, Mrs. Bjornson and their little bairn Bjorn Bjornson bjought the house they have been occupying in Virginia,

to prevent it being sold out from bjunder them." Bjetter and Bjetter Bjournalism, we always say.

Having followed the pros and cons of including ham radio chatter in the Journal's pages, we will reserve further discussion of such matters for future editions of this column, lest we be accused of being related to K. B. Warner, or spelling our middle name QST. We feel, however, that ham radio discussion does have a definitely important place in this rag, and choose to go on record as being of that opinion. Furthermore, we could at this moment fill several pages with anecdotes of the trials and haywire of local hams—but we'll wait. Just sneak in a quiet 73, and proceed with more universally acceptable matters.

WOL technicians please note Deepest apologies for omission: of news from your tribe this issue, but because of newness in the job, and vague knowledge of deadlines, etc., we were unable to acquire gossip from the Mutual gang. One item we'd like to include, however, is that WOL has recently increased power to 5,000 watts, and is blanketing the greater Washington area with a very fine signal. Their promotion campaign, keynoted by the clever slogan "The Voice Is Changing," a tie-in with their familiar station break "This is WOL, the Voice of Washington," was displayed prominently all over town, and the public was fully informed of their improvement. So best wishes with the new rig, and we promise faithfully to devote a sizeable portion of next month's write-up to the high spots of life at WOL. That's for sure, fellows!

In conclusion, merely it's good to be back, for one of us, and for the other, well, he'll get used to it, and so we hope to supply the world at large with some minor epics from Washington through our combined efforts. So a most happy holiday to one and all, and to all good night—plagiarism to the bitter end! —Bob and Mac

Holiday Greetings

from

CLANCY HAYES

Still

"HUGGIN and CHALKIN"
at ABC - San Francisco

Hi NABET

HARRY BUBECK

Program Manager

KPO - NBC



FIBBER McGEE *and* MOLLY

(Marian and Jim Jordan)

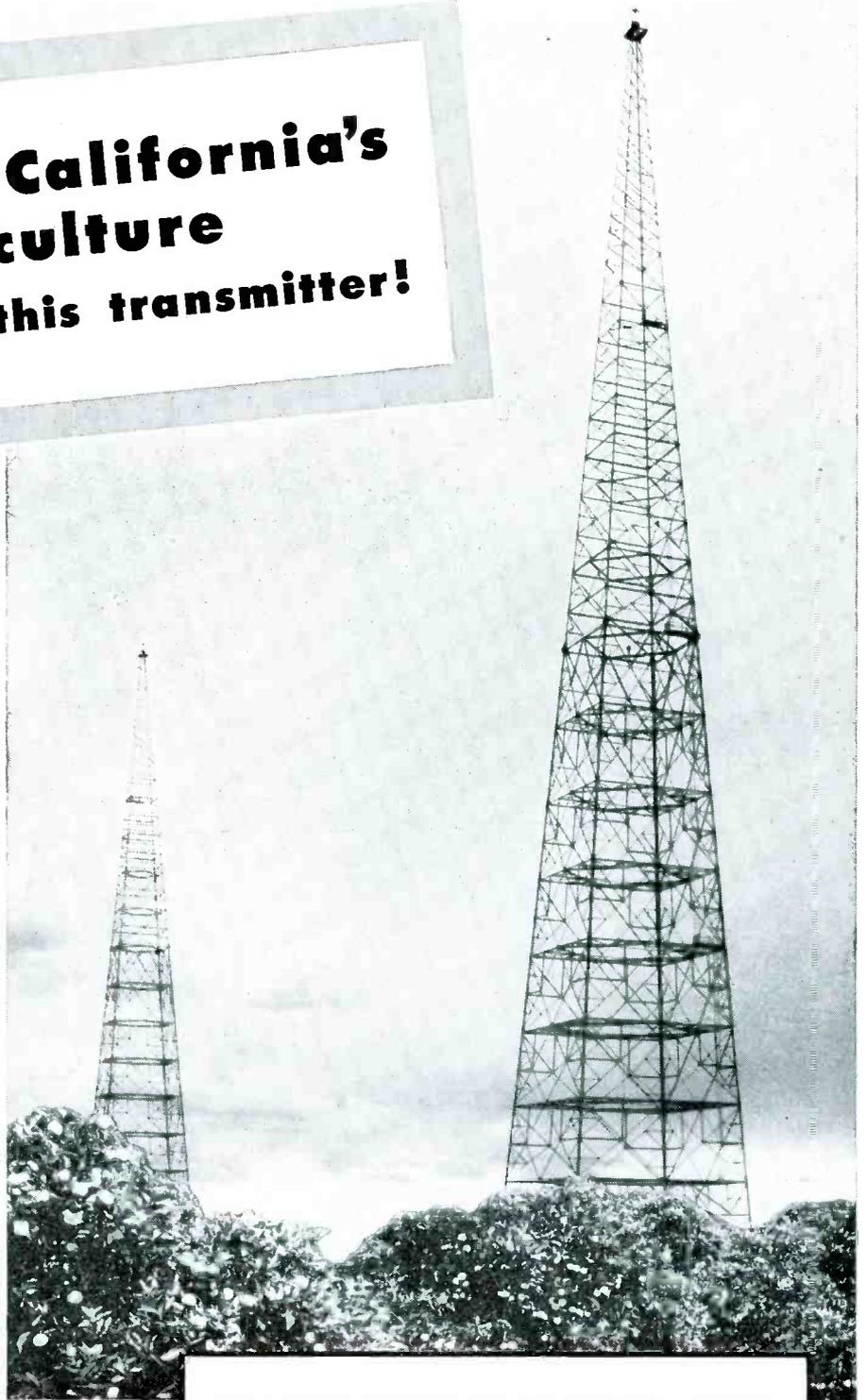
Southern California's Agriculture depends on this transmitter!

Its 50,000 watt, clear-channel signal carries KFI to Southern California's eleven-county agricultural population... and its intelligently-planned Public Service programming to agriculture brings this industry to depend upon it.

Instantaneous mass communication from one source to growers and stockmen throughout the entire Southern California region is vitally necessary to this specialized 1 1/2 billion dollar industry.

Hence KFI's public service obligation... its privilege... its opportunity to build rural listener loyalties.

Local programming in the particular interests and welfare of local listeners... plus the popularity of its NBC offerings... accounts for KFI's leadership in not only the Hooper-surveyed metropolitan district but in the rural areas of approximately a million people.



KFI ... NBC for LOS ANGELES

50,000 WATTS • CLEAR CHANNEL • 640 KILOCYCLES

Paul C. Anthony, Inc.

PUBLIC SERVICE PROGRAMS FOR THE AGRICULTURE INDUSTRY

The KFI Noon Farm Reporter, aired daily from 12 noon until 12:15 P.M., is built upon a constant supply of up-to-the-minute information received from authoritative sources. It presents: news, information on grower-practice, market quotations, weather forecasts.

Through the winter season KFI interrupts its commercial programs to bring nightly frost warnings (8:00 P.M., November 15 through February 15) to growers of citrus and other frost-tender crops throughout California and Arizona. KFI is the only station broadcasting this regional service and it is the only station *needed* to cover all of the frost areas in these states.

EDWARD PETRY AND COMPANY, INC., NATIONAL REPRESENTATIVES

With best wishes to all our friends of

N. A. B. E. T.

CASTLE'S, Inc.

Photographic Supplies

HOLLYWOOD, CALIF.

MERRY XMAS

to a bunch of swell guys

DEAN FOSSLER

Organist

Staff — ABC

¹¹ Gregory Hood — MBS

Season's Greetings



BRIDE and GROOM

A B C



Greetings from

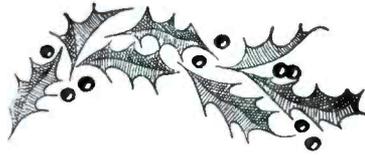
"The Poet of the Piano"

CARMEN CAVALLARO

and his orchestra

SHEAFFER PARADE

N B C



A Merry Christmas

from

Red Skelton



Season's Greetings



Arkansas' Revenge for the Civil War



Wishing you a Good Old-Fashioned Merry Christmas and a Happy New Year

Sincerely

RALPH WALDO EMERSON

Musical Director

Lum and Abner

ABC Network



THANKS TO YOU

from

GENE BAKER



Thanks, Fellas

ZEKE MANNERS

ABC - Hollywood



Best Wishes from the Cast of

A Date With Judy

LOUISE ERICKSON

DIX DAVIS

MYRA MARSH

JOHN BROWN

DICK CRENNAN, "Oogie"

HELEN MACK, Director

Music by
HAL BORNE

Musical Director
C. BAKALCINIKOFF
Courtesy R.K.O. Studios

Sound Effects
BOB CONLAN

Engineer
BOB BROOKE



Bob Mitchell — KFI

Ladies' Day, Monday through Friday, 9:15 10 A. M.

Orchestra Conductor — **CONQUEST**, Saturday, 9:30-10 P. M.

Orchestra Conductor—**FAVORITE STORY**, Tuesday, 9:00-9:30 P. M.

FOUNDER AND DIRECTOR OF THE MITCHELL BOY CHOIR

BOY SCOUT Jamboree, Saturday 3:30 - 4:00.



Joan Schafer

"What Do You Say?"

KFI 10:15 Mon. - Fri.

The Best to the Best!

BILL STULLA

KFI's "Ladies' Day"

Tenor, Bill Shirley, popular young singing star of screen and radio, is currently the featured vocalist on "LADIES' DAY," heard over KFI Monday through Friday at 9:15 a.m.



*Greetings Through
the Glass*



FLEETWOOD LAWTON

News Analyst

KFI

NBC

Microphonically

Yours

Rudy Vallee

All right, guys, open up that pot
Give us all the decibels you've got

"Merry Xmas and A Happy New Year"

... and thanks a lot!

Pierre Andre	Paul Masterson
Reed Browning	Ralph Rogers
Dresser Dahlstead	Mike Stokey
George Fenneman	Harry Walstrum
John Kennedy	Henry Weaver

ABC HOLLYWOOD
STAFF ANNOUNCERS
and Our Girl Friday, Margot Duba

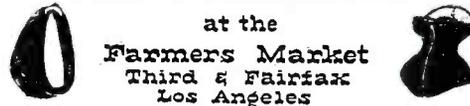


Season's
Greetings
to the Engineers
RUBY LLOYD

American Broadcasting Co.
Staff Organist — Hollywood

Organist, "Retribution"
"Danger, Dr. Danfield"

Mirandy's Emporium
General Merchandise



at the
Farmers Market
Third & Fairfax
Los Angeles

Same "Mirandy" of the American Broadcasting Co.

Tuesdays on ABC Pacific it's

"RETRIBUTION"

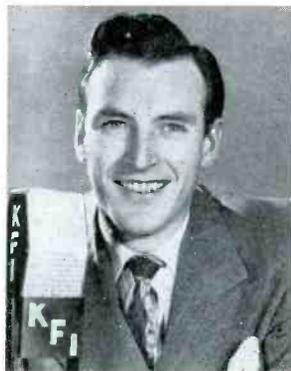
Dwight Hauser
Writer - Producer

Lou Merrill
Narrator

Ruby Lloyd
Music

Season's Greetings

Bob Hope



It's JUST A GUESS
but THANKS A MILLION
and 29,875 (*) times

**Number of discs spun by
KFI NABET engineers for
BOB PHILLIPS last year.*

RUSS STEWART

and

TOM OWEN

say

Hi ya Fellas!

KFI

GREETINGS



(Al)

(Page)

(Lloyd)

PAGE CAVANAUGH TRIO

Personal Manager "Bullets" Durgom

*We could mention
the names of several
hundred lines that
we distribute, but
would rather mention
just one line:*

Merry Christmas

Radio Products Sales, Inc.

238 West 15th Street

Los Angeles 15, Calif.

PR - 7471

*The largest-stocked supply
house on the West Coast.*

*Watch for the announcement
of the opening of our new
store at 15th and Hill Streets
early in 1947.*



Best o' Luck
GINNY SIMMS

Broadcast Engineers' Journal **125** Yearbook • December, 1946

Greetings

DAVE KLEIN

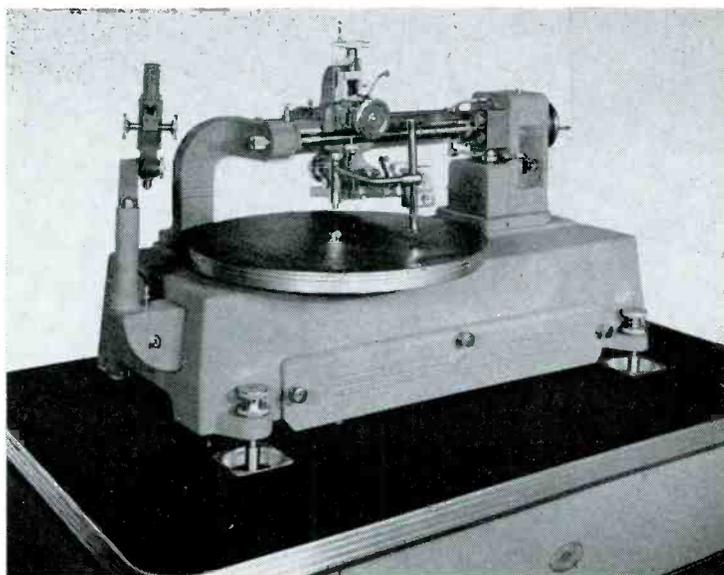
KFSD

600 Kilocycles • 1000 Watts

C.P. for 5000 Watts

NBC

for San Diego



Visit our display rooms featuring the complete Presto line together with other recognized top lines of associated sound and playback equipment

KIERULFF & COMPANY

820 - 830 W. Olympic Boulevard

Los Angeles 15, Calif.



**Merry Christmas
and
A Happy New Year**

BUD ABBOTT

LOU COSTELLO

Exclusive Management
EDWARD SHERMAN

Howdy!
ART BAKER and His
NOTEBOOK



AIR CONDITIONING

REFRIGERATION

AUTHORIZED WESTINGHOUSE
DISTRIBUTORS

**WESTERN AIR
&
REFRIGERATION, Inc.**

1819 GLENDALE BOULEVARD
LOS ANGELES 26, CALIFORNIA
PHONE OL. 1117

Engineers • Contractors

SERVING THE AIR CONDITIONING NEEDS
OF THE
BROADCASTING INDUSTRY
ALONG THE PACIFIC COAST

Carlton E. Morse Productions

“ONE MAN’S FAMILY”

“I LOVE A MYSTERY”

and now

*** “ADVENTURES BY MORSE”**

. . . . and more to come

1500 Vine Street

Hollywood 28, Calif.

* Transcribed . . . Write or Wire for Information

B I N G

Merry Christmas



Norman B. Neely

Enterprises



420 Market Street
San Francisco 11
Calif.

7422 Melrose Avenue
Los Angeles 46
Calif.



... so after the broadcast of "What's Doin' Ladies" one day we took this publicity shot ... the guy over-doing the seltzer routine ... scoring a direct hit ... is none other than my very good friend ... that excellent ABC engineer ... Carl Lorenz ... who incidentally will be billed for half the cost of this ad!

JAY STEWART

HURRAY FOR THE ENGINEERS!

Keep That Needle Runnin' High

Like these guys have done so well for us . . .

George Foster, Leon Fry, Art Brearley, Harold Lindquist,
Joe Kay, Ray Ferguson and Hal Platt



"People Are Funny"

"G. E. House Party"

Starring

ART LINKLETTER

John Guedel Radio Productions
Hollywood

W6AGG • W6TAB • W6OXR • W6RKV • W6VCA • W6OHR



Season's Greetings

from

JACK WARING • PHIL KUDLER
WENDEL FALES • BUD BOOMGARD
JOHNNY HEFT • BILL COOKE • ED SPIGHT

of

UNIVERSAL RADIO SUPPLY CO.

Your Southern California



Distributor

FM and AM BROADCAST STATION EQUIPMENT
STUDIO and RECORDING EQUIPMENT
LABORATORY and TEST EQUIPMENT
AMATEUR and ELECTRONIC PARTS and EQUIPMENT



Distributors for

AMPEREX • VICTOR J. ANDREW • CORNELL DUBILIER • E. F. JOHNSON
CARDWELL • AEROVOX • WESTON • WARD LEONARD • JAMES MILLEN
HAMMARLUND • SHURE BROS. • SPRAGUE PRODUCTS • UNITED TRANSFORMER
STANCOR • REEVES SOUNDCRAFT



Universal has it! Write, phone, wire or drop in soon.

1404 - 06 VENICE BOULEVARD
LOS ANGELES 6, CALIFORNIA
PROSPECT 5488

U N I V E R S A L R A D I O S U P P L Y C O M P A N Y

Broadcast Engineers' Journal **131** Yearbook • December, 1946

Season's Greetings
from
**America's Largest
Independent Recording Co.**

COMPLETE FACILITIES

for
Recording *Plating*
Pressing *Shipping*

RADIO RECORDERS

7000 Santa Monica Boulevard
Hollywood 38, California
Hollywood 3917

*Holiday Greetings to the Engineers of
Southern California and Arizona*

W. BERT KNIGHT CO.

908 Venice Boulevard

Los Angeles 15



Representing

Shure Brothers — Microphones
Cornell-Dubilier Electric Corp. — Capacitors
Ward-Leonard Electric Company — Resistors
Standard Transformer Corp. — Transformers
Hytron Radio & Electronics — Tubes
James Millen Mfg. Co. — Parts

A MERRY CROSSLEY
and a
HOOPER NEW YEAR!



‘THE LIFE OF RILEY’

with **WILLIAM BENDIX** *as* **‘RILEY’**

SATURDAY NITE ON NBC

Packaged by **IRVING BRECHER**
321 So. Beverly Drive
Beverly Hills, Calif.



Thanks a Million
DINAH SHORE



Merry Christmas

... from ...

"RADIO TEL"



Come in and say hello. Since last Christmas we have enlarged our quarters so as to accommodate larger and more complete stocks of all kinds of material. Now we have greater facilities and a better opportunity to serve you. New transmitters, receivers, test equipment and sound equipment are now arriving. Won't you drop in and allow us to show it to you?

RADIO TELEVISION SUPPLY CO., Inc.

1509 So. Figueroa Street

Los Angeles 15, California



*All the Best
For This and
Every Season*

MARVIN MILLER



"Coronet Story Teller"

OMAHA NEWS

By
Cy Hagrman

MY APOLOGIES to everyone concerned for missing the November issue of the Journal. I have no excuse to offer and can only say that I will do my best to make that ol' deadline from now on.

Constituents hereabouts have been pursuing the elusive pheasant the last few weeks as the hunting season opened up. Trans. Super Roy Glanton and Trans. Op. Bob Rudd journeyed to the sand hills of Nebraska on a pheasant hunt on the 18th of October for a three day stay, headquartering at Burwell. They report the birds are scarce this year although they brought back several choice pheasants. Trans. Op. Mark McGowan was also among the followers of the Pheasant trail, doing his shooting on the 26th and 27th of the month, however I have not contacted Mark to learn the results of his trip. Mark was also in attendance at the NABET National Council meeting in Denver, and a meeting was held at the Prague Hotel here in Omaha for the purpose of reporting what was learned at that meeting.

We are all anxiously awaiting the arrival of new television equipment here at WOW. The station has purchased a great deal of new equipment for the purpose of training the staff in the operation and production of television shows. The equipment will be installed in the Creighton University Auditorium, temporarily, and the dramatic organizations of Creighton will cooperate with productions in front of the camera. Also available at that location within a short distance will be athletic events such as basketball games, football, etc., which can be used to obtain much needed experience in the handling of the equipment and other phases of the art of television. Russ Baker, WOW production manager for Television, advises that shipment of the equipment has been promised for the 30th of October. Incidentally, in connection with this, Roy Glanton has been constructing a television microphone boom with controls for turning the mike, extending the boom length, etc. It has developed into quite a project and Roy does not advise anyone to attempt it unless you are prepared to cope with the great number of headaches that go along with a project of this kind.

Vital Static

Congrats this month go to Al Maller, Louie DeBoer, and to Mark McGowan. Al has a birthday (he's 27 and unmarried, girls). Louie and Beverly DeBoer have a wedding anniversary (their fourth) and Mark McGowan begins a new year with WOW (his tenth).

That about winds up this month's news from WOW in Omaha; will have more for you next month; until then, so long. Cy.

ROCHESTER

By
Geo. W. Wilson

AND right now it's a Merry Christmas and a Happy New Year from the Rochester Chapter to all Chapters from coast-to-coast. The best of luck to each and everyone of you in 1947!

Now is the time to make our New Year's resolutions, and January 1st will be the time to break them. All of which is a very silly pastime—making resolutions, that is. People say one should take stock at the end of the year to find out what has been gained or lost during the past twelve months. But I don't like people who say those things to one. It's this week's and next week's pay check, and the ones following, that count. And—of course—the problem of how to make those checks bigger.

As has been stated in this column before, WHEC is in the process of erecting a new 5,000 watt transmitter. At the present time, the building is completed, except for minor things like heating and plumbing; the three towers are standing and lighted, each with its little house at the base for you-know-what (and it's heck when you have to go out there on a cold wintery night). The transmitter unit is partially installed, but awaiting the arrival of necessary parts which seem to be in transit somewhere. These are just a few of the gray-hair-growers besetting Chief Engineer Bern

O'Brien, who didn't help himself any when he drove his car over the field meter. But luck was with him that day, because the meter still works. Heck, the guy has to be lucky once in a while.

Of course, there is a housing shortage in Rochester—and every day some one calls up and wants to rent our old transmitter building. So let me say right here and now that it is not for rent, because we will be maintaining our FM job—WHEF—at the old stand. The public gets the darndest ideas.

Charlie Snyder, our Chapter Chairman, flew out to Denver and back. Being up in the air is nothing new to Charlie, because he hung in a balloon out over the Atlantic during the war looking for U-Boats, and he said each trip lasted from 20 to 25 hours. This doesn't bring up the subject, but I'll bring it up anyway, that Charlie is doing a darn good job as Chapter Chairman—not only in representing us at the Denver Meeting, but in maintaining the status of our local situation, and aiding in the formation of nearby engineers into the NABET group. Also, orchids to Howie Mouatt, our Sec. Treas., who must have had some legal training somewhere in his past, because he's the boy who can explain all the fine printing in legal documents. Howie's many accomplishments and varied abilities are a constant source of amazement to all of us.

The WHEC management has just announced that individual pictures will be taken of all the engineers. We are now wondering if that is good or bad, and if we'll be paid overtime to come in on our day off for the sitting. Should we put that in our next contract? Ho hum, always a problem—never a solution!

That's that for now—and again—Merry Christmas and A Happy New Year.

A. F. Gain Along the Mohawk

DB No. 4 by Joe Gagne

WELL, here we are again, but in lousy spirits, because—one Stolzenberger cut material from campfire meeting for past two moons. This white man send card saying we gottum too much material; he cuttum. He cuttum alright—he scalp—result no article in September and half article in October maga.

So any and all of um keep big squawks from Mohawk go to white man in Richmond Hill. We gottum column here—he printum or we go on warpath and scalp um!

A gathering of all the personnel who could be spared from their posts was held in the nature of a surprise tea party given recently by Vice-President Robert Peare. It was good to see so many of our brothers and sisters all together at once. Maybe Don Morey ought to do this to get the crowd out to a meeting when called. It might be an incentive for hungry stomachs—hi hi!

Marc Reeds has been on vacation as has Herb Kohl. Marc being in town or down at Chatham while Herb journeyed back to Iowa and the middle west to see his folks. Dick Putman is out now and probably hunting deer to his heart's content.

(Letter from "the Hill" next month.)

To wind up this clambake, Ralph DeGraff has been transferred back out to the WGY transmitter, at South Schenectady. Maybe he will stop oscillating now! So we run along to meet the deadline, so good-bye. Your scribe, Joe Gagne.

SUBSCRIPTION BLANK

THE BROADCAST ENGINEERS' JOURNAL
116-03 91st Avenue, Richmond Hill 18, N. Y.

Gentlemen: Please enter my subscription to The Broadcast Engineers' Journal to start with the next issue.

Name..... (Station.....)

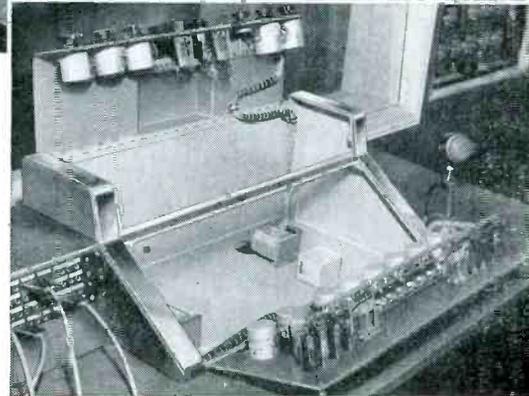
Address

City, P. O. Zone, State.....

Check attached for \$2.50, 1 year; \$4.00, 2 years.



Constance Bennett, broadcasting her own program, "Constance Bennett Calling," over ABC network (Upper right) From the studio in Radio Center, recently opened in Hollywood, California, serving the broadcast industry, the program is picked up through the mixer console (above) and piped direct to the network master control.



It's What's Inside That Counts

Arranged to suit your specific requirements, new Cinema Variaten mixer consoles are again available. We put in only what you need. As shown above at Radio Center, Hollywood's newest broadcasting facility, several different Cinema consoles channel programs originating in the various studios or the auditorium seating 300 people.

Flexibility is the chief advantage of Cinema engineered consoles. Because of this, they can be used for a wide variety of purposes. These new Cinema consoles are available with or without preamplifiers. They can be made for any number of channels and can include a complete switching system.

Such a console can become either a mixer control in recording, re-recording or broadcasting studios, or can be easily adapted as a master control or complete speech input system for small AM or FM stations.

Our engineers are available to discuss your equipment needs. Call on Cinema today. Our representatives are: Turney & Beale, 40-08 Corp. Kennedy St., Bayside, Long Island, New York; Wright Engineering Co., 4241 Melbourne Road, Indianapolis, Indiana.

Any Number of Positions

Many types of Variaten attenuators, in impedances of from 30 to 600 ohms, either ladder, balanced ladder or bridged "T" circuits, VU or VI meters, jack strips, patch cords, switches, and other accessories can be supplied.

Manufactured and Sold in the West by:

VARIATEN

**CINEMA
ENGINEERING COMPANY**

ESTABLISHED, 1935

1510 W. VERDUGO AVE., BURBANK, CALIFORNIA

F.C.C. Public Notice No. 534

Amendment of Engineering Standards Concerning FM Broadcasting

THE Federal Communications Commission announced that henceforth licensees of FM stations may, if they desire, employ circular or elliptical polarization. Horizontal polarization is still retained as the standard form of polarization and must be used by all FM licensees (including those who exercise the option of utilizing circular or elliptical polarization. Horizontal polarization also continues as the basis for determining effective radiated power for allocation purpose. Thus, circular or elliptical polarization in no way changes the present provisions in the Standards concerning horizontal polarization. The change made simply permits FM licensees to add another polarization to their horizontal polarization.

The circular or elliptical polarization may be secured by the addition of vertically polarized radiation, displaced ninety degrees in electrical phase, as a supplement to the standard horizontally polarized radiation. First suggested several years ago, this type of wave polarization has received serious consideration for a considerable period and has recently proved highly satisfactory in experimental operations. Additional transmitter operating power would be authorized to stations employing the new type polarization. The supplemental power may not exceed the horizontally polarized component used for allocation purposes, thus service contours remain unchanged. The modification does not permit vertical polarization to be used except as a component of circular or elliptical polarization.

The propagation characteristics of the new polarization are similar to those of horizontal polarization and thus no change is proposed in present allocation standards. It is expected, however, that circular or elliptical polarization where used will decrease the antenna requirements for home and car radio receivers and materially increase the probability that a receiving antenna located at random will provide entirely satisfactory FM reception.

SUPPORT NABET

100% OF, BY, AND FOR THE
BROADCAST ENGINEER

Broadcast Engineers' Journal
Yearbook • December, 1946 **136**

For Truly Fine Sound Recording



Professional Recordists
Recommend . . .

Sapphire Recording audiopoints

Designed for the professional. Guaranteed to do a professional job

With These Three Outstanding Features

- INDIVIDUALLY DISC-TESTED ON A RECORDING MACHINE.
- EXPERTLY DESIGNED TO INSURE PROPER THREAD THROW.
- A PRODUCT OF THE MANUFACTURER OF AUDIODISCS — AMERICA'S LEADING PROFESSIONAL RECORDING BLANKS.

Professional recording engineers know, from years of experience, that Sapphire Recording Audiopoints offer the ultimate in recording styli. Made by skilled craftsmen to most exacting specifications and individually tested in our laboratories, these Audiopoints are of consistent fine quality.

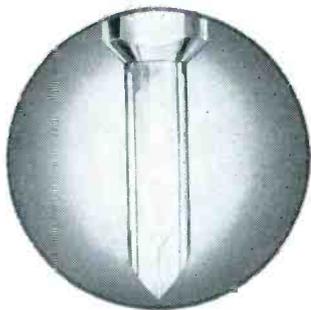
A good recording stylus requires a perfectly matched playback point. The Sapphire Audiopoint for playback fills this need completely. In materials, workmanship and design, it is the finest playback point obtainable. (Should not be used on shellac pressings.)

These Audiopoints are protectively packaged in handy cellophane covered cards—cards that are ideally suited for returning points to be resharpened.

OTHER POPULAR AUDIPOINTS, that complete a full line of recording and playback styli, are: Stellite Recording Audiopoint, a favorite with many professional and non-professional recordists; Diamond-Lapped Steel Audiopoint, a recording stylus particularly adapted for non-professional recordists; Playback Steel Audiopoints (Straight Shank and Bent Shank), the most practical playback points for general use. One hundred per cent shadowgraphed.

For further information, see your Audiodiscs and Audiopoints distributor, or write

AUDIO DEVICES, INC.
444 Madison Ave.,
New York 22, N. Y.

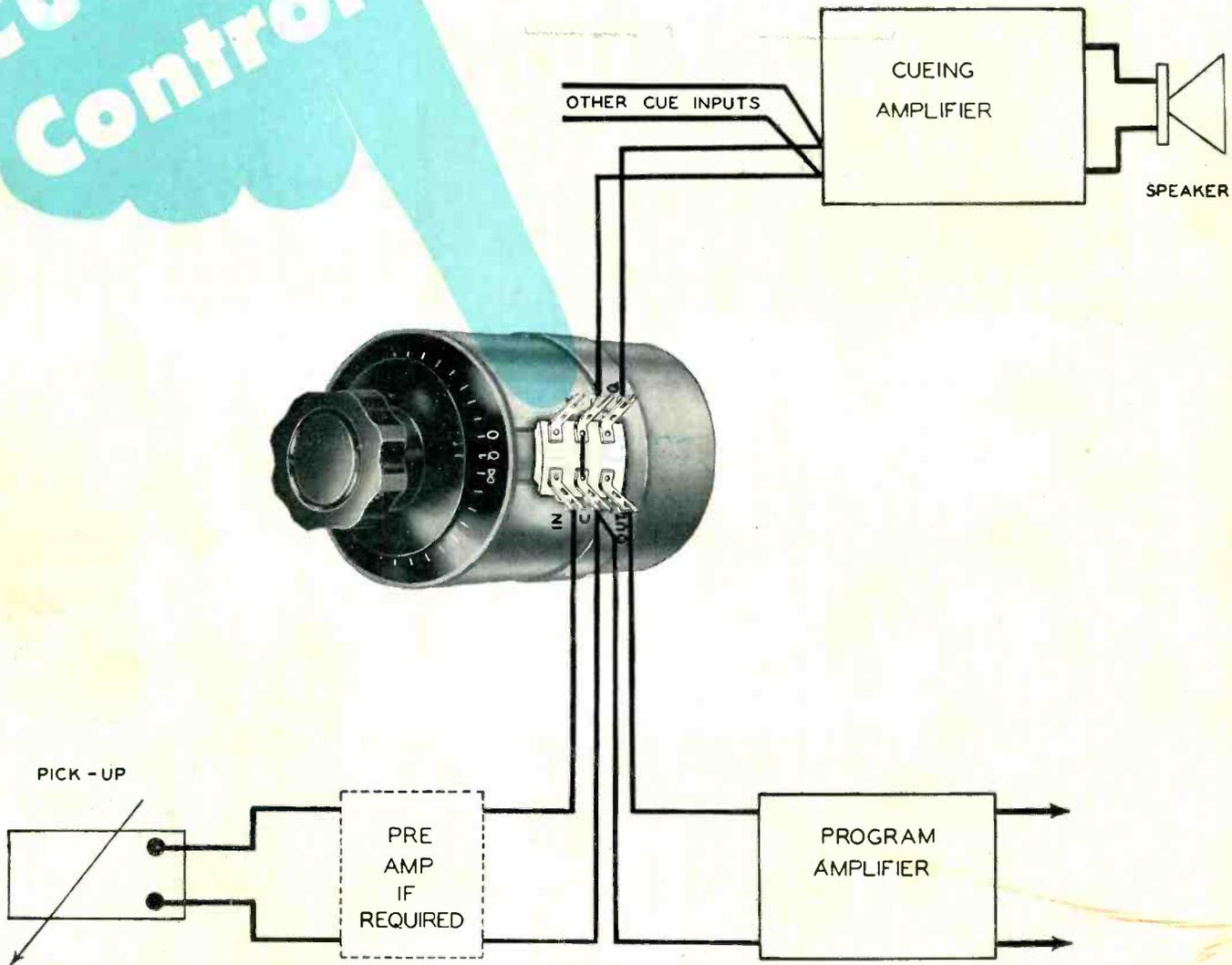


The jewelled point, with 87° included angle, correct radius and fine polish, cuts a silent shiny groove for many hours. When dulled or chipped, these points may be resharpened several times. Each resharpened Audiopoint is disc-tested to insure perfect performance. For this service return points through your dealer.



**Direct
Cueing
Control**

without auxiliary switches



DAVEN ATTENUATORS *with Built-in cueing controls* are now available . . .

DAVEN attenuators may now be obtained with a cueing control. Auxiliary switching mechanisms are no longer required to cue recordings, transcriptions and remote or network programs.

The control itself will serve to transfer the program material to a separate cueing amplifier. Provision is made at the extreme attenuation position for connecting the incoming signal to a cue circuit before "fading in" the signal. As a result, a program can be smoothly "brought in" at the right time without the operation of any additional switches. A lug on the terminal board is provided for connection to the cueing system.

The cueing feature may be supplied on any type of Daven attenuator. However, it is primarily recommended on those controls used for mixing, which are provided with a taper to infinity. For further details write to our Sales Department.

APPLICATIONS

- Broadcast Stations
- Recording Studios for Playback
- Wired Music Services
- Sound Film Industry
- Dubbing & Re-recording for Sound Effects

THE **DAVEN** CO.

191 CENTRAL AVENUE
NEWARK 4, NEW JERSEY