

# RADIO FANS HERE MAY PICK UP SIGNALS IN HAVANA, CUBA

## SPANISH SINGING AND NATIVE DANCE MUSIC SENT OUT

Broadcasting Plant Is Installed by Telephone Company of Island.

ITS CALL IS "PWX" Station Operates 8:30 to 10 P. M. on 400-Meter Wave Length.

Radio followers who have had the pleasure of listening-in to the melody of New England from Springfield, Mass., Southern melodies from Atlanta, Ga., and Western songs from Davenport, Iowa, may increase their concert range by tuning to the wave length of Havana, Cuba, now broadcasting Cuban songs and tropical dance music. The Cuban Telephone Company has recently opened a new broadcasting station, which is a duplicate of the WEA station of the American Telephone and Telegraph Company in New York. Experimental tests have been heard for north as New Jersey, and as the winter atmosphere envelops the country it is expected that the radio waves of Cuba will be heard throughout the United States. The new station has been operating between 8:30 and 10 p. m., Havana time. The call letters are PWX and the wave length 400 meters.

The broadcasting stations WJZ WEAP and WOR have a power of 500 watts. Engineers predict that powerful water-cooled vacuum tubes now being developed will be capable of handling 100,000 watts into space and not only fulfill dreams of radiophone communication, but also transmit power such as Niagara to New York and other cities by electronic force. Experts state that the new power tubes have infinite potentials and that even a 200,000-kilowatt tube does not represent the limit. Already the call letters of station WOR at Newark have carried speech and musical selections across 2,000 miles of ocean to London.

The performance of radio stations recognizable code reception at present thus casts a light on the future possibilities of radio telephony. An operator in the United States listening to Namur, Germany, can by simply turning a dial, tune in the German signals and hear Mauthausen, France, or Honolulu.

It is expected that the new power tubes will soon make possible not only the reception of music from Cuba, but from any country in the world. Radiophone users will find that by a simple tuning adjustment they will be able to skip around the earth in the twinkling of an eye.

Great Britain is first beginning to regulate radio broadcasting within its territory. The British scheme will have all broadcasting done by single organization, which will

**The Home of High Grade Standard Radio Apparatus**

We will be glad to advise you, without charge, if you are experiencing any trouble with your radio apparatus, and suggest changes, where necessary.

**AGENTS FOR**



**White & Boyer Co.**  
612 12th St. N. W. M. 7067.



Radio experts of Woodward & Lothrop and the Radio Instrument Company assembled around a Lincoln car that proudly found its way in the Fordson parade this week adorned with a JM6 Radio Instrument Company set. Music was broadcasted from Woodward & Lothrop and successfully received by the car as it drove in the vehicle demonstration.

be sanctioned by the government, operated by manufacturers of receiving sets and financed jointly by both. Present plans call for the establishment of six stations in the British Isles, at London, Birmingham, Manchester, Newcastle, Cardiff, Glasgow, Plymouth and Aberdeen. All radio receiving stations are required to have a license from the postoffice department, which has jurisdiction over communication. The license fee is 10 shillings, or about \$2.50 a year. In the United States no license is necessary and no fee is charged. In Britain the broadcasting stations will receive a share of the government's license fee to cover their operating expenses. It is estimated that each broadcasting station will cost \$70,000 a year.

The Radio Corporation of America spends \$6,000 a month, or almost \$72,000 a year, on the program for station WJZ at Newark. The cost of installing a first-class broadcasting station in the United States is about \$50,000.

## MAKE MOONSHINE FROM GOATS' MILK

ASTRAKHAN, Oct. 28.—Home-made hooch isn't peculiar to dry America. Down in the southeastern part of European Russia, where there are prohibition laws, there can be found moonshine made from goats' milk that is as potent as any corn whiskey. The Kalmucks, who, before the war, were living in the steppes of the Volga, have now been driven from their lands and are reduced to poverty. Their herds are decimated and their riches dispersed. The old thirst for spirits in spite of prohibition laws. And the Kalmucks still manage to satisfy it. Leading a nomadic life on the steppes along the lower reaches of the Volga, pitching their tents where pasture is good and moving on to greener fields as the old ones dry up, the Kalmucks are not particularly easy prey to revenue officers.

The stills consist of three kettles in one of which they place the sour milk which is already fermented. The second is connected to the first by a pipe which carries over the steam, and is water cooled in the third. The drink which is prepared from the distilled milk is said to have a splendid kick and a flavor which is all its own.

**BESTS RADIO PARTS**

POPULAR PRICE RADIO STORE

Buy Your Radio Goods Where Daddy Used to Buy His 16 Years Ago—It Will Mean a Saving of Dollars and Cents to You

**BEST BUY OF THE SEASON**



Plug, 49c Jack, 25c

This is My List on Wireless Goods:

7812 Condensite Panel	\$1.50	Wire Terminals, doz.	.10
7821 Condensite Panel	\$2.25	Wickville Fixed Condenser	.20
7822 Condensite Panel	\$2.50	3-Tube Blasts	.25
7823 Condensite Panel	\$3.00	Tuvas 2000 Head Sets	\$4.50
7824 Condensite Panel	\$3.50	Murlock 2000 Head Sets	\$4.50
7825 Condensite Panel	\$4.00	Murlock 2000 Head Sets	\$4.50
7826 Condensite Panel	\$4.50	Brandes 2200 Head Sets	\$5.85
7827 Condensite Panel	\$5.00	Porter 1100 Single Set	\$2.00
7828 Condensite Panel	\$5.50	Brandes 2200 Head Sets	\$5.85
7829 Condensite Panel	\$6.00	Porter 1100 Single Set	\$2.00
7830 Condensite Panel	\$6.50	Brandes 2200 Head Sets	\$5.85
7831 Condensite Panel	\$7.00	Porter 1100 Single Set	\$2.00
7832 Condensite Panel	\$7.50	Brandes 2200 Head Sets	\$5.85
7833 Condensite Panel	\$8.00	Porter 1100 Single Set	\$2.00
7834 Condensite Panel	\$8.50	Brandes 2200 Head Sets	\$5.85
7835 Condensite Panel	\$9.00	Porter 1100 Single Set	\$2.00
7836 Condensite Panel	\$9.50	Brandes 2200 Head Sets	\$5.85
7837 Condensite Panel	\$10.00	Porter 1100 Single Set	\$2.00
7838 Condensite Panel	\$10.50	Brandes 2200 Head Sets	\$5.85
7839 Condensite Panel	\$11.00	Porter 1100 Single Set	\$2.00
7840 Condensite Panel	\$11.50	Brandes 2200 Head Sets	\$5.85
7841 Condensite Panel	\$12.00	Porter 1100 Single Set	\$2.00
7842 Condensite Panel	\$12.50	Brandes 2200 Head Sets	\$5.85
7843 Condensite Panel	\$13.00	Porter 1100 Single Set	\$2.00
7844 Condensite Panel	\$13.50	Brandes 2200 Head Sets	\$5.85
7845 Condensite Panel	\$14.00	Porter 1100 Single Set	\$2.00
7846 Condensite Panel	\$14.50	Brandes 2200 Head Sets	\$5.85
7847 Condensite Panel	\$15.00	Porter 1100 Single Set	\$2.00
7848 Condensite Panel	\$15.50	Brandes 2200 Head Sets	\$5.85
7849 Condensite Panel	\$16.00	Porter 1100 Single Set	\$2.00
7850 Condensite Panel	\$16.50	Brandes 2200 Head Sets	\$5.85

All Goods New, Fresh Stock and All My Regular Line Fully Guaranteed.

Save and Be Safe

**JOHN C. RAU**  
524 TWELFTH STREET N. W.  
Franklin 5157 Washington, D. C.

## Radio Achieves Success

Radio experts of Woodward & Lothrop and the Radio Instrument Company assembled around a Lincoln car that proudly found its way in the Fordson parade this week adorned with a JM6 Radio Instrument Company set. Music was broadcasted from Woodward & Lothrop and successfully received by the car as it drove in the vehicle demonstration.

## IN THE AIR TODAY.

**WASHINGTON.**

**NAA—NAVAL RADIO STATION, RADIO, VA.**

2:45 to 4 p. m.—Closing live stock markets; hay and feed markets.

5 p. m.—Weather report. Daily marketgram.

10 p. m.—Time signals; weather report; ship orders; 2:50 meters. Naval press news on 2:50 meters. Except where noted, sending is CW 8.950 meters.

**WWA—POSTOFFICE DEPARTMENT STATION, (1,100 METERS).**

3:30 p. m.—Report on fruits and vegetables.

5 p. m.—Report on dairy products and grain.

7:30 p. m.—Live stock and grain reports. Report on fruits and vegetables.

**350 METERS UNLESS OTHERWISE NOTED.**

**Eastern Standard Time.**

**WNU—DOUBLEDAY-HILL ELECTRIC COMPANY.**

4:30 to 5:30 p. m.—Report from Hudson's Statistical Organization. The Thunder, Traumer, Birds of A Feather, H. M. S. Pinafore, Tocata, On the Way to Waliki, Say It While Dancing, L'Africana, Romance, Bonnie Ester Bush, A Dream of Your smile, Valse, The Mikado, Dreamy Hawaii, Valse Balade, Blue Tango Americana.

**WIL—CONTINENTAL ELECTRIC SUPPLY COMPANY.**

5:30 to 7 p. m.—Hawaii jazz and opera music, interspersed with talent.

**WEAS—THE HECHT COMPANY. Broadcasting.**

3 to 5 p. m.—Musical program.

**WJAZ—WOODWARD & LOTHROP. (Strictly Reproducing Piano Used With Piano Solos.)**

4:30 to 11:30 p. m.—Piano solos—Basket of Roses, Mighty Lak a Rose. Victor selections—Popular Song, Waltz, The Road that Brought You to Me, Rose of Stamboul, Waltz, Shiek of Avenue B, Smile Through Your Tears.

Piano solos—Class to Your Heart, Hell Me, Little Gypsy.

Victor selections—Some Sunny Day, Somewhere, Song of Love, Stumbling, Fairest of the Fair.

2 to 3 p. m.—Victor selections—It Couldn't be Done, It's Up to You, Happy, Fox Trot, June Moon, Fox Trot.

Special piano solos—Prelude, Norwegian Bridal Procession, Polonaise, Victor selections—My Buddy, Three o'Clock in the Morning, My Mother's Lullaby, You Won't Be Sorry.

Piano solo—Dreamy Nights, Intc.

**WPM—THOS. J. WILLIAMS, INC. Daily.**

10 noon—Epiphany Chimes.

12:30 p. m.—Report on stolen autos.

12:50 p. m.—News Items.

Music during intervals.

8 p. m.—Concert under the direction of M. Francis Palnter.

## Helpful Hints for Broadcast Listeners

Single wire aeriels work just as efficiently as multiple wire aeriels. A single wire about 150 feet long works the best on the 350 and 400-meter broadcast wires.

If you are unable to control the oscillations in your regenerative tube set put a .001 mfd mken condenser across the phone terminals. A condenser of about .0005 mfd capacity will across the primary of the first amplifying transformer if the first set oscillates too freely with this reduce the capacity to .00025 mfd instead of the .0005 mfd capacity.

Quite a number of the larger broadcasting stations listed in the better class of stations and known as Class B are operating on an increased wave length of forty meters over the 350-meter wave. That makes the wave of the Class B stations 400 meters. WWJ, WGY and several other stations, including WVC, are operating on this 400-meter wave length.

Soft detector tubes cause more distortion than hard tubes, but soft tubes are more sensitive and give louder signals. Try both and be your own judge.

**Riverdale Club Elects.**

RIVERDALE, Md., Oct. 28.—The Women's Club of Riverdale has elected the following officers: Mrs. H. Roby, president; Mrs. G. Gottsals, vice president; Mrs. R. Lutz, secretary, and Mrs. C. A. Magoon, treasurer.

**FIRST in RADIO**

We were the first big store to sell Radio Equipment in Washington; the first to install a Broadcasting Station; the first to give preferred personal service.

We have kept the pace; we're ready now as never before to serve you with

Everything in radio, from units of all kinds to ready-made outfits

Distributors for the Radio Corporation of America.

Listen in on our WEAS concerts.

**The Hecht Co.**  
Radio Store 618 F St.

## CONCERT BY RADIO IS HEARD SO FAST TRAIN SANS AERIAL

Experiment Is Made on Pennsylvania Broadway Limited.

The most interesting experiment in railroading was made on the Broadway Limited of the Pennsylvania Railroad between New York and Chicago last week when radio reception was made in an all-steel car without any outside wires while the train was running at full speed.

From the results obtained there is every possibility that direct communication with a moving train, both by means of wireless telegraphy and telephony, is entirely feasible. During the test telegraph signals were received from a steamer on the Great Lakes at a distance of 1,000 miles. The detailed report of J. D. Jones, superintendent of telegraph and signals of the railroad, who accompanied the experimenters as an observer, is as follows:

"Referring to the radio telephone reception on Broadway Limited train 29, October 12, en route New York to Chicago:

"The original arrangement, as set up by the E-D Manufacturing Company representatives, was to board the train with their apparatus at North Philadelphia. This was later changed and they made arrangements to board the train at New York and set their apparatus preparatory to leaving time of train in order to ascertain the possibility of receiving radio telephone signals while passing through the Hudson River tubes. Unfortunately the assembling and connecting up of their apparatus consumed so much time that there was little or no opportunity to test while passing through the tubes.

"Signals were picked up on the apparatus after leaving Manhattan Transfer from the Bamberger station, Newark, N. J., broadcasting on schedule, 2:30 to 4 p. m. The signals received were very strong while passing through Newark and generally faded out as the train left Newark.

"At 4:45 p. m., after train left North Philadelphia, the Wanamaker station came on with their grand organ recital and signals came in very strong and clear up to time when train entered the Mantua subway, when they faded away, but were picked up again after leaving the subway and held up to 5 p. m.

"Nothing further was heard from any of the radio telephone stations up to the time the train arrived at East Pittsburgh, about 12:15 a. m. The signals were heard by some stations using a 'continuous wave' telegraph transmitter. This turned out to be a steamer on one of the Great Lakes working with Sandusky, Ohio. The telegraph signals, in addition to being very clear and distinct and easily read, but some variations in intensity occurred, due to change in direction of their receiving loop.

"We are informed the reception of these telegraph signals continued for some time after leaving Pittsburgh, and tests were discontinued at 2 a. m. October 13.

"The apparatus, as used by the E-D Manufacturing Company representatives, consisted of eight units, comprising three stages of radio-frequency, one detector and two stages of studio frequency, along with a variable condenser and adjustable eighteen-inch loop receptor."

## USE TWO METHODS IN GENERATING

One Is Employment of Tickler And Other Is by Variometer.

Two principal methods are commonly employed to reimpress the plate energy upon the detector grid in order to obtain the regenerative effect. Of these the simpler, and perhaps the more common, is known as the tickler. It is a small extra coil located close to the grid of the secondary of the receiving tuner. A regenerative receiver may therefore consist of three adjustably mounted air-core coils—the primary, secondary, and tickler coils.

In the second method of regenerative reception a variometer serves, instead of the tickler coil, to tune and feed back, into the grid of the vacuum tube part of the increased voltage of the plate circuit. A variometer is an instrument which varies the inductance and therefore wavelength value of the circuit in which it is used. It comprises a set of fixed windings and a set of rotatable windings. When the current flow in both sets of windings is in the same direction the variometer is at maximum inductance value and wavelength; when the rotatable winding is turned so that the current flow in the two windings is in opposite directions, the variometer is at minimum inductance value and wavelength.

Owing to their much greater sensitivity, regenerative receiving sets are somewhat more difficult to operate than nonregenerative sets. But once the operator has grasped the purpose and use of the dials and become familiar with their correct settings through a little practice, he will find that the self-amplifying feature of the "feedback" circuit will greatly improve results. Distant signals, often entire inaudible with a nonregenerative set, will be heard much more loudly and clearly, and radio telegraph messages can be received. From "Regenerative Radio Reception," by Phil M. Riley in Radio Broadcast for November.

## TWO WAVE LENGTHS ASSIGNED FOR GENERAL BROADCASTING

360 and 400 Meter Bands Are Allotted by Department of Commerce.

In order to assist radio broadcasting the Department of Commerce has specified two wave lengths on which broadcasting may be conducted. These wave lengths are 360 meters, the one in general use up to this time, and 400 meters, just recently allotted. While these wave lengths are forty meters apart, undoubtedly there will be considerable confusion on the part of those owning radio receivers who are located very near a broadcasting station. For the purpose of assisting those who are located so that a 360-meter and a 400-meter station are picked up by their receivers simultaneously, a number of methods will be described, which, if applied, should greatly assist those desiring to get either one of the two waves without interference. There is one case, however, which will be very difficult to assist; that is, where the receiver is exceptionally near to a broadcasting station—say within a few thousand yards.

## PHONOGRAPH SAFE SAYS RADIO MAN

Neither Will Opera Nor Symphony Concerts go Begging, He Declares.

We have heard it predicted in speech and in writing, that with the radio telephone bringing music to every home, the faithful phonograph will soon be left to collect dust in the attic, symphony concerts will be attended only by impossible eccentrics who desire to give their names in the papers, and opera seats will go begging.

Of course, we cannot agree altogether with these predictions. Self-appointed prophets are as plentiful in the radio world as seeds in a watermelon—like which, they are ordinarily to be avoided, not swallowed.

As a matter of fact, what is there to be said on this radio-vs.-phonograph controversy? Both instruments are able to reproduce music played by great artists and played at a distance from the "consumer."

**Claim to Popularity.**

The greatest claim to popularity of the phonograph is, however, when you want it. You can choose your favorite opera and hear them as often as you like; or you can dance at a moment's notice and need pay the orchestra no overtime.

The original cost of almost any serviceable built set is bound to be greater than the cheaper models of the phonograph, and no amount of large-scale production or improvement in manufacture can reduce a price which requires the materials and skilled workmanship. Braaking a bulb will doubtless always be more expensive than breaking a record; and in general, the radio apparatus, especially the antenna, will require more attention than a phonograph. Finally, the fact that the choice of music lies with the audience, constitutes an inevitable and serious handicap.

**Position Is Safe Now.**

Generally speaking, radio is not likely for some time to capture the position held by the phonograph. Just as the phonograph has made no great inroads on the other sources of musical entertainment, but has instead made most stages of the appreciation of good music and thus added to the desire of the public to hear the great artists, so radio is taking good music into still more homes, and, since it cannot in many ways replace the phonograph, is supplementing it.

## CRIME TO SUFFER FAMINE THIS YEAR

RIGA, Oct. 28.—The Crimea, one of the garden spots of Russia and a district which has sent many immigrants to America, will suffer from famine for another year, according to lengthy articles in the Soviet newspapers, which tell of the situation in this province. In the Hammer and Sower, a Bolshevik paper published in Simferopol, Prof. Ponomov and other agricultural experts stated that the peasants who have strength enough to harvest their scanty crop have not the animals necessary to help them. Practically all of the farming in the Crimea, it is stated, is now gone by hand.

The paper also states that for every twelve peasants there is only one horse and that there is one cow to every fifteen persons. This year's crop will not meet the requirements of the population and while famine deaths have practically ceased in some districts, still the food will not last more than half the winter.

**The JM-6 Radio Frequency Amplifier**



Used with such success in the Auto Parade last Tuesday in receiving the music broadcasted by WJAZ, it is—

**"Best by Test"**

of Any Receiving Set on the Market Today

Manufactured by

**RADIO INSTRUMENT COMPANY, INC.**  
WASHINGTON, D. C.

HUTCHINS BLDG., 10TH AND D STS. N. W.

**"It Pays to Have the Best"**

**Build Your Own Radio Set At an Extremely Moderate Cost**



Detector and Two Stages of Audio Frequency Amplification, incorporating the famous Armstrong regenerative circuit, with a variable primary inductance, variometer tuned grid and variometer tuned plate circuit. Considered to be the most selective hook-up of today.

Any loud speaker can be attached to this set.

Complete list of parts, including wire, tubing and drilled panel, as illustrated. Full instructions and circuit free.

**\$30.00**

**LANSBURGH & BROTHER**  
Radio Department Fourth Floor

**Old Dominion Granted Retrial.**

The Washington and Old Dominion Railway Company, against whom a verdict was rendered for \$100,000 damages in favor of Arthur W. McPherson, a former flagman, for the loss of his right leg, was granted a new trial yesterday by Justice Hoehling in Circuit Court No. 2. McPherson was run over by a car on September 18, 1919.