

THE WORLD OF RADIO

RADIO CABINETS BUILT IN RIGA

Washington, April 17.—It is almost unbelievable, but thousands of radio cabinets are now being shipped from Latvia to the United States, according to a report by Commercial Attaché C. J. Mayer of Riga, to the lumber division of the Department of Commerce. These cabinets are shipped unfinished and unassembled. They are made by schoolboys in the technical and industrial school at Riga, who are reported to have shipped several sets last year and are expecting to increase the shipments to several million sets.

New Esperanto Station.

Nearly all Europe will be able to listen in on Esperanto programs when the station being planned by Esperantists is put into operation. The station will be erected in Switzerland, on the top of one of the hills above Geneva, probably the Salève. It will broadcast in Esperanto to Germany, Austria, Switzerland, Italy, France and Spain. The cost of erecting the station, which will amount approximately to \$18,000, is to be subscribed by the supporters of the international language.

Blind Radio Expert.

Capt. Ian Fraser, blind member of the British parliament, is a radio expert and makes receiving sets in his spare time.

RADIO

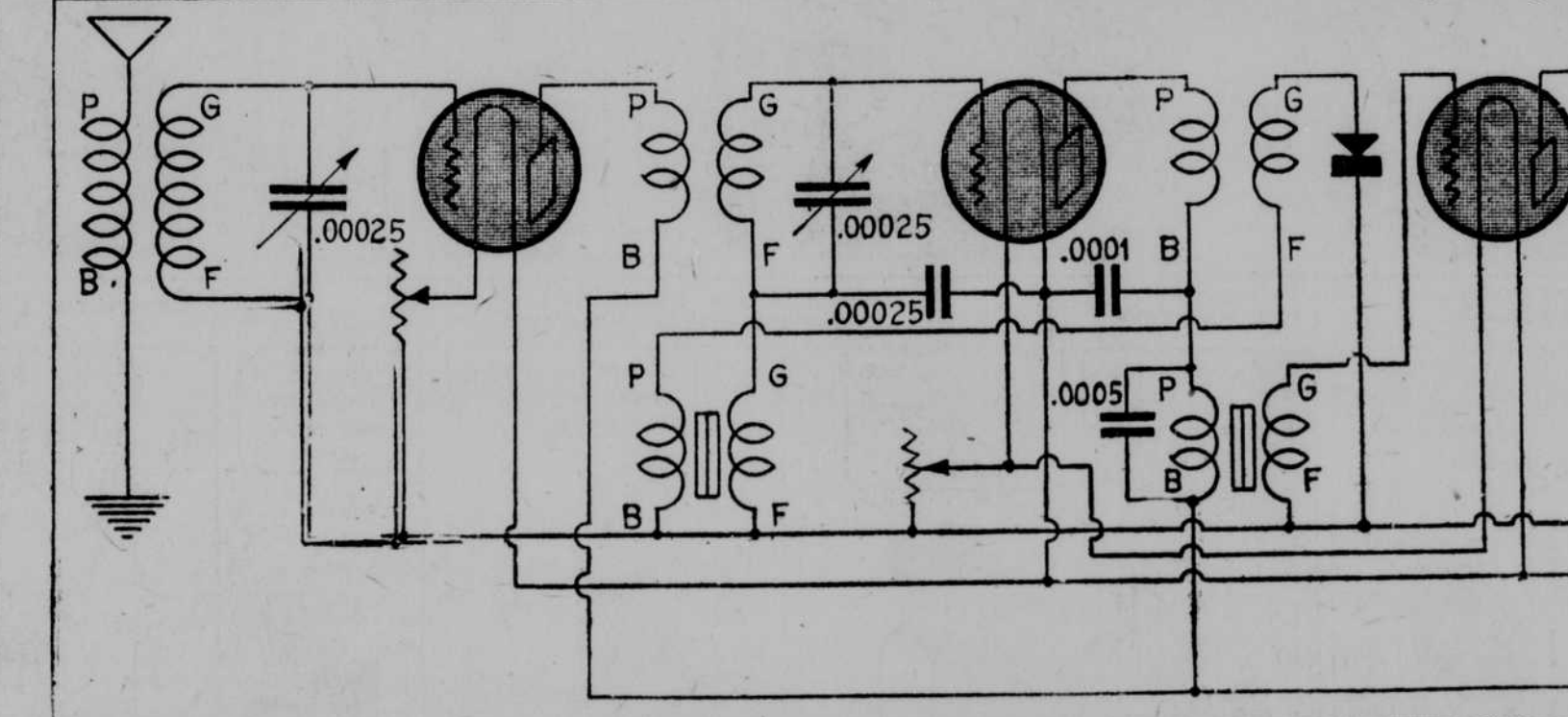
(Program for April 18, Courtesy of Radio Digest) By The Associated Press. WEEI, Boston (silent). WGBE, Buffalo (silent). WYV, Chicago (526), 7, concert; 8, program; 9:30, Youth's Companion; 9:35, classic; 12, carnival. WGN, Chicago Tribune, (279), 2, 6, organ; 6:30, ensemble, string quintet; 8, jazz hour; 10, dance. WLS, Chicago, (244), 5, 7, lullaby time; 7:30, barn dance; 11:15, organ. WREB, Chicago Post, (279), 2, 7, concert; 9, dance readings, soprano, stories; 11, dance, songs. WTAM, Cleveland, (359), 4, 7, entertainment; 8, dance, novelty, baritone. WLW, Cincinnati, (422), 3, 6, concert, late show; 7, baritone. WFAA, Dallas News, (475), 9, 10, orchestra; 11, dance. WOL, Des Moines, (454), 9, musical; 11, orchestra, songs. WOA, Denver, (224), 10, orchestra. WHO, Des Moines (silent). WJZ, Detroit (silent). WDAF, Fort Worth (silent). WPKX, Havana, (400), 7:30, concert, baritone. KNN, Hollywood, (397), 8:15, instrumental; 9:30, organ; 10, features; 12, orchestra; 2, movie stars. KTHS, Hot Springs Park, (274), 8, 9:30, concert; 1:15, fiddle band; 10:15, dance. WRLI, Iowa City, (449), 7:30, choir. WOS, Jefferson City, (449), 8, special music. WDAF, Kansas City Star, (365), 6, School of the Air; 11:45, Night Hawks. WDAF, Lawrence, (449), 8, orchestra. KRLD, Los Angeles (405), 8, concert; 8:30, children; 9:30, vocal; 10:30, vocal, instrumental; 12, orchestra; 3, Lost Angeles. KFI, Los Angeles, (488), 8, 8:45, talk; 9, orchestra; 10, vocal; 11, popular program; 11, instrumental, vocal; 12, popular songs. WLAS, Louisville Journal, (399), 8, 7:30, concert. WCO, Minneapolis-St. Paul (416), 9, 8, philharmonia; 8:30, shrine band; 10, dance, vocal. WMO, Memphis Commercial Appeal, (401), 8:30, orchestra. WMAP, New York (491), 5: 6, service; 6:30, trips and adventures; 7, pianist; 8:30, violinist; 9:20, concert; 9:30, harp; 10, orchestra. WJZ, New York (424), 3, 4, concert; 7, musical; 7:30, baritone; 9:30, dance. WJLN, New York (261), 2, 4, dance; 6:30, health talk; 6:30, orchestra; 7:30, dance; 8:15, entertainers. WCAI, Norfolk, (284), 12, violinist; vocal, pianist. KGO, Oakland (261), 2, 6, concert; 10, vocal, instrumental, symphony; 12, dance. WQAG, Omaha, (261), 6, dramatic; 6:45, orchestra; 7:30, address; 8, 9:30, KDKA, Pittsburgh (498), 2, 4, Bible help; 7, Schick club; 7:30, concert. WCAE, Pittsburgh (498), 6:30, Uncle Kayser; 7:30, harmony four, ukulele, string entertainers. KGW, Portland Oregonian (491), 5: 12, Scullion. WPI, Philadelphia (294), 5: 6, talk; 7, concert; 8, revival; 9, orchestra. WJL, Philadelphia (426), 2, 6, talk; 7, talk; 7:15, concert; 7:45, talk; 8, talk; 9:45, orchestra; 10, vocal. KPO, San Francisco (429), 10, orchestra. WGV, Schenectady (379), 7, Fresh program, address; 8:30, orchestra. KJL, Seattle, Post-Intelligencer (224), 4: 8, play review. WBE, Springfield (413), 6:15, history; 6:30, concert; 7, Paul Bevers; anniversary; 8:30, orchestra; 9:05, baritone. KSL, St. Louis, Post Dispatch (445), 8, 8, dance.

WOAW Program

5:45 P. M.—Public news period, conducted by Eugene Knebeck. 6:00 P. M.—Dramatic hour, Davis Studio of Expression, direction of Ellen Elsie Davis. Reading, "The Runaways" by J. W. Riley. Mary (Sweetness) Bauers. Selections. Ellen Elsie Davis and J. Simmons Davis. 6:30 P. M.—Adams' orchestra. 7:00 P. M.—Art Lantry and his orchestra. 7:30 P. M.—Weekly address, under auspices of Omaha Chamber of Commerce. 8:00 P. M.—Week end under auspices of the Omaha Printing Co. Greek Helen Mackin, "Iphelia Kinder". Tenor solo, "Danny Boy". Weatherly. Accompanied by West Sisters String Quartet. String quartet: (a) "Bohemian Folk Song", Kammeyer; (b) "Drink to Me Only with Thine Eyes", West sisters. Madge West Sutphen, first violin. Vivian West, second violin. Klara West, cello. Soprano solo, "Wings of the Night" Walter. Violin solo, "Pavane". Winters. Hariton solo, "Home to Me Old". Terry. Cello obligato, "Belle von Mansfeld". Piano solo, "By the Sea", Schubert. List. Soprano solo, "The Goodbye", Massenet. Heroic. Mrs. Harry Schuler. Cadman. String quartet, "Spanish Dance" Albanez. West sisters. Baritone solo: (a) "Fragrances"; (b) "The Last Hour". Sanderson. Don Harry Cooper. Cello solo, "To the Evening Star", Wagner. From Bachauer. Harry Cokerell. Bella von Mansfeld. "Wind". Violin solo, "Allegretto", Cadman. Violin solo, "Tambourine". Kreisle. Madge West Sutphen. Tenor solo, "Oh, Ask of the Stars, Beloved". La Forge. Accompanied by West Sisters String Quartet. String quartet: "Molly on the Shore". West sisters. Granger. Baritone solo, "The Yesterdays", Cokerell. Cello obligato, "Belle von Mansfeld". Cello solo, "Canadian Love Song", Nevin. Belle von Mansfeld. Soprano solo, "Folk". Grundahl. Piano solo, "Valse", Chopin. String quartet and piano, "Valse Trieste". West sisters and Harry Cokerell. Accompanied by West Sisters String Quartet. Harry Cokerell. P. M.—Frank W. Hodak, Jr., and his Nightingale orchestra.

Three Tube Reflex Brings in "DX" Stations New York Couples Dance to Orchestra Music Broadcast From Miami

By WILLIAM A. SCHULT, Jr.
WERE right at the height of our dancing as one of the local stations signed off for the evening. We concluded that there would be no more dancing that night, at least not through the medium of a radio orchestra. However, we must have made a mistake, for a slight turning of the dial brought in the familiar strains of a popular fox trot. Surely this was not a DX station; it must be one of the locals that we missed earlier in the night. And so we went on with the dance.
At the finish of the selection every one present was startled to hear the old familiar voice say: "WMBF, say down in glorious Miami Beach, Fla. Down where all is June time, broadcasting from the Fleetwood hotel." "Down where all is June." And here we were in New York on the time of an orchestra playing in a



hotel located in the far corner of Florida.
Of course there is nothing wonderful about such reception, but when you stop to consider the fact that only a three-tube set was being used and in the heart of the city, you may agree that perhaps it was rather good reception, at that, to be able to hear the station all over the house.
Nor was that all the DX. When WMBF had concluded its program and signed off we immediately combed the ether for more fox trots, but were not so successful to this end, since the next station was broadcasting church music. It was WHO, Kansas City.
Of course, it was a reflex.
Now, before we go any further, we might as well confess that three-tube set used was a reflex, employing a crystal detector. In other words, three tubes doing the work of four. The set has two stages of radio frequency amplification and two stages of audio.
Undertaking the construction of such a set a few years ago would shock the average radio fan. Today, however, the receiver can be constructed and hooked up in one day, if not in less time.
To further simplify the building and eliminate the difficult winding of the special inductances we urge the use of ready-made, specially designed radio frequency transformers.
Panel Layout.
As in the construction of any other receiver, so it is with this, a card board template should first be cut the exact size of the panel and then the measurements laid off on this. When the template has been made fast upon the face of the panel, the markings may be impressed on it with a center punch.
The first variable condenser is mounted two and three-quarters inches from the left hand side of the panel and three and one-half inches down from the top. Three inches to the right of this variable condenser and two inches from the bottom of the panel the 30 ohm rheostat is placed. Next, three inches to the right of the rheostat and three and one-half inches from the top of the panel, mount the second variable condenser.
Four and one-half inches from the right hand side of the panel and three

posts coming through, two on each side of the shell.
Measuring from center to center, the second tuned R. F. transformer is mounted four inches from the first, with its corresponding tube socket placed between it and the panel. The binding post strip is located at the rear of the subpanel, just slightly to the left of the center. (See photo of interior.)
Referring to the schematic wiring diagram in the center of the pages, one might believe the circuit rather difficult. Careful scrutiny, though,

WIRE, TELEPHONE or WRITE

Your orders for grain or provisions for future delivery

(PRIVATE WIRE SERVICE)
To All Principal Markets

OMAHA OFFICE PHONE, AT lantic 6312
LINCOLN OFFICE PHONES Local, B 1233 Long Distance, 120

OMAHA KANSAS CITY CHICAGO

Updike Grain Corporation

Experienced Efficient Reliable

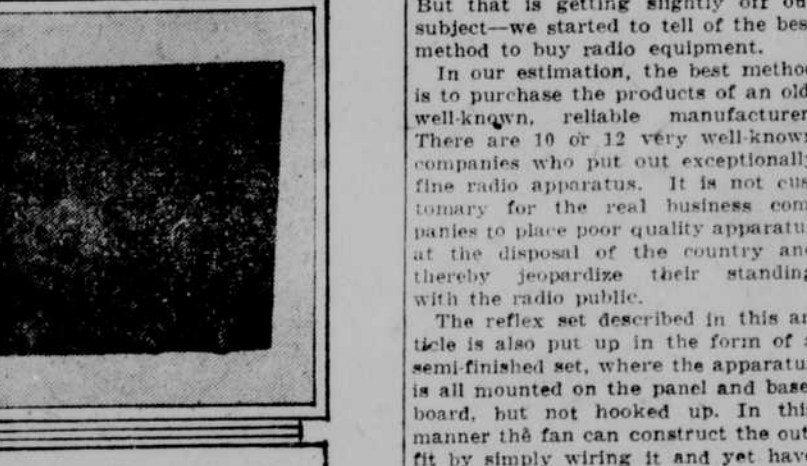
HAMMOND GETS RADIO PATENT

Washington, April 17.—A patent was granted by the patent office during the last week to John Hayes Hammond, Jr., of Gloucester, Mass., covering apparatus for controlling a moving object by groups of sound waves having a predetermined wave frequency and predetermined group of frequency, functioning in a receiving system for controlling a movable body in response to sound waves. The device is intended to provide an improved system for the control of submarines and an improved system of submarine mine sweeping.

Causes of Inaction.

When no signal can be heard on the detector and no other noises, the trouble may be caused by a short circuit of the phone condenser, run down batteries, battery polarity reversed, broken connection in phone cord or set, poor socket contact, or poor contact in phone plug or jack.

will reveal that it is no more complicated than any neutrodyne. On the other hand, it is imperative that all connections be made carefully and as shown in the diagram.
A few words regarding the makes of the various instruments used in this set will not be amiss here: The variable condensers need not be of any specific manufacture, so long as they are of low-loss design and are of .00025 microfarad capacity.
The two rheostats should be well constructed and be purchased from a manufacturer who can be depended upon to sell reliable, well made instruments.



Above—Schematic wiring diagram. All constants are clearly marked. The R. F. transformers should be connected exactly as shown in the hooked-up.

Top photograph of the three-tube reflex shows the panel layout. The variable crystal detector is shown at the extreme right hand side of the receiver.
Interior view of the completed three tube reflex receiver. A good idea of the correct placement of the various instruments can be gained from this photo.
In the radio frequency stages, All-American transformers are recommended. The audio stages will work well with any carefully constructed audio frequency transformer.
When we take into consideration the tube socket we have something that has always been one of the features of the "guy" artists. If a receiver is designed for low-loss quality

ties and a "mud socket" is employed in the detector circuit, or in fact, throughout the whole set, all the loss apparatus used in conjunction with it becomes useless. It is rather difficult for the average radio fan to pick out a good tube socket from the thousands of various makes which he has to pick from in a large city. However, there is one good panel that holds when purchasing any type of form of radio equipment.
Always keep your eyes open when visiting radio dealers. Notice what equipment they use in their own set. Judge from the actual results—if it sounds good, purchase the make of apparatus used in the exhibition set. But that is getting slightly off our subject—we started to tell of the best method to buy radio equipment.
In our estimation, the best method is to purchase the products of an old, well-known, reliable manufacturer. There are 10 or 12 very well known companies who put out exceptionally fine radio apparatus. It is not customary for the real business companies to place poor quality apparatus at the disposal of the country and thereby jeopardize their standing with the radio public.
The reflex set described in this article is also put up in the form of a semi-finished set, where the apparatus is all mounted on the panel and baseboard, but not hooked up. In this manner the fan can construct the outfit by simply wiring it and yet have the satisfaction of saying that he built his own receiver.

The Home of the AMPICO

APRIL CLEARANCE

Our workshop has been operated to capacity, touching up and refinishing most all of these Pianos. If you can distinguish some of them from brand new ones you are more clever than we are. The unusual demand for "top grades" at this time, is the thing responsible for so many fine trades, and when it comes to disposing of these "fine trades" it is impossible for us to set a limit to the sacrifice. This, of course, is your gain. It is the earlier you come, the more you will gain.

USED GRANDS

Steger & Sons	\$435	Stratford	\$725
Vallmer	\$435	Schumann	\$775
Henderson	\$595	Vose	\$785
Davenport-Treacy	\$595	Kimball	\$785
Whitney	\$615	Lester	\$795
De Kalb	\$675	Hazelton	\$985

Convenient Terms

Buy a Hospe "Renewed" piano—use it in your home—then if you decide you want a brand new piano we will allow you what you have paid on it.

USED UPRIGHTS

Cline	\$115	Pianista	\$310
Milton	\$95	Mathushek	\$325
Kohler & Chase	\$120	Foster & Co.	\$395
Hospe	\$125	Cable-Nelson	\$415
Kimball	\$130	Vallmer	\$385
Schaeffer	\$155	Cable-Nelson	\$465
Mueller	\$160	Apollo	\$485
Stults & Bauer	\$170	Schumann	\$495
Cable-Nelson	\$185	Gulbransen	\$525
Krakauer	\$195	Schumann	\$565
Krakauer	\$170	Apollo	\$595
		R. S. Howard	\$525

A number of these Used Pianos had graced homes of great wealth and beauty. Many from families that were building new homes and desired a different style of piano to correspond with a different style of furnishment and interior decorations. But the tone, action and finish of these splendid Used Pianos make them values you can never hope to see duplicated. Such opportunities are never numerous even in a lifetime.
If You Cannot Call—Write for Details, Including Terms

A. HOSPE CO.

1513-15 DOUGLAS

The Home of the AMPICO

Adjusting Set.

First, tune in some nearby station to maximum signal strength. Then, listening in the headphones, turn off entirely the first rheostat. The signal will probably continue to be heard, owing to coupling between the two couplers. To eliminate this, rotate the first coupler slightly. When a position is finally found where no signal is heard, fasten the first coupler permanently in this position and do not again disturb it.

Reduced Fare.

Fare and one-half for the round trip, Omaha to Chicago, account Woman's World Fair April 17 to 25; tickets on sale April 17, 21 and 24, with return limit midnight April 27. Excellent service, leaving Omaha 6 p. m., 7:32 p. m., 7:35 p. m., and 8:15 p. m.
Chicago & Northwestern Railroad.
G. W. HALL, General Agent,
1113 Farnam St.

BEDDEO

1415-17 Douglas St.



If You Need 6 Months to Pay--- Beddeo Will Give It to You---

That's the foundation of our big, liberal Credit Service which we want every man and woman in Omaha to enjoy. That's the basis on which we solicit your account on our books. Outfit yourself and family from head to foot. We'll arrange the payments so they will be easy to meet.

BUY ON PAYMENTS

Right now our stocks are at their best, and the prices which prevail afford the most pronounced money savings. Make tomorrow your clothes buying day at Beddeo's.