

THE EVENING WORLD'S RADIO PHONE SERVICE COLUMN.

By Capt. Robert Scofield Wood.

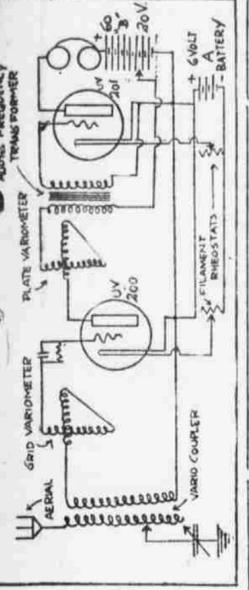
QUESTIONS AND ANSWERS

Ed. Koch—"Will you please publish a diagram for connecting a neon tube as an audio frequency amplifier to a crystal detector? Will this increase any range or will it only amplify the music which I now hear?"

Answer—The diagram for this hook-up has appeared on several occasions but always with the warning that it is not an advisable combination because of its inferior performance. Unless you intend connecting them purely from an experimental standpoint do not attempt it. A single tube detector amplifier will give far better results. Crystal and vacuum tube combinations are hard to get operating so as to give satisfactory results. The addition of a V. T. to your crystal will not in any way increase your range. It will if put through the proper coupling amplify the music.

A. P. C.—"Will you kindly publish a hook-up for a detector and one step of audio frequency amplification? Can a tube be used as a detector tube in place of a 200 tube? What size grid leak should be used with a 201 tube?"

Answer—The following sketch indicates a hook-up of your instruments for a detector and one step of amplification. A U. V. tube can be used in the place of the soft tube. Under ordinary conditions, however, it will require more plate voltage than the 200 tube. The use of the grid leak is a matter of experiment. Grid leaks can be purchased in different sizes ranging from .001 to .010 ohms. Experimenting with grid leaks will give some very interesting results.



H. Wolf—"Could a storage battery charger using a rectifier on A. C. be used to charge a 6-volt 60-100 ampere 'A' battery? If it will not, please tell me how to construct a charger using 100 volts A. C. input to charge the battery described above." **Answer**—The diagrams which appeared for recharging here for the recharging of rechargeable 'B' batteries and will not do for the storage battery to which you refer. There are several kinds of recharging transformers for recharging storage batteries of the 6-volt 80 ampere type which would be more economical to buy complete than to try and construct. However, a layout such as you desire will appear in the near future.

F. D. and J. D.—"Will you kindly tell us if the hook-up of the enclosed is regenerative? If not, how can it be made regenerative? This is not regenerative but can be made so by connecting a tickler coil in the plate circuit and locating this coil in close proximity to the secondary of the vario coupler as can conveniently be arranged. A variometer in the plate circuit can be used as the tickler and will give very fine results."

Reader—"What effect will an 'A' battery potentiometer have upon the operation of a single tube set?"

Answer—"With an 'A' battery potentiometer connected in the circuit, a finer degree of tuning will be obtainable and the plate potential can be raised to 25 volts using a 22-volt battery. The rest work of the potentiometer, however, is in striking a balance between the two circuits and cutting down to a minimum all internal noise. It is indispensable to the best operation of the receiver."

R. Banceller—"Recently I made a set consisting of a variometer, a vario coupler, a variable condenser and a detector tube, U. V. 200. I use five 12-volt dry cell batteries to light the filament. It is with the latter that I am experiencing trouble. When I first turn the set on I get good, loud reception, which immediately starts to fade away until absolutely nothing is heard. Then by turning down the rheostat and waiting a few moments I can again turn the lamp on and get good reception. What is my trouble? I have also noticed that when the table is struck all reception stops until the table is hit again. What can the cause of this be? I have heard the following stations: WEA, WJZ, WOR, WHN, WAAM, WBAY, WWZ, WAAT and 2XK. Who is the last mentioned? What would be the life of a medium size storage battery with the set I am using?"

Answer—"Your trouble lies in worn-out batteries. It is a property of all batteries to regenerate slightly when standing idle for a short time. The fact that you can strike the table to stop and start the reception indicates a poor connection somewhere in the set. 2XK is an experimental station operated by the Western Electric Company of New York City. The life of a storage battery depends entirely upon its size and the duty to which it is subjected. You can figure out by the number of ampere hours contained and the number of ampere hour consumed by the tube you are using. A sixty-ampere hour would last you for a month operating the set on an average of two hours a night. A storage battery should never be permitted to run down below the halfway mark as it will prove detrimental to the battery in the long run."

Ed. Waterbury—"Will you kindly tell me where I can purchase a WD11 vacuum tube and how much it costs?"

Answer—Any first-class electrical supply store specializing in radio parts will be able to supply you with as many as you want at \$8 each.

Radio Fan—"I am constructing a loose coupler set. The primary coil is wound on 5-inch tubing and has 250 turns, while the secondary, wound on 4 1/2-inch tubing, has 200 turns. The rest of the set consists of an aerial 100 feet long, a crystal detector and a pair of 250-ohm phones. At present I am using a set with a loose coupler of smaller dimensions and am able to receive very clearly all of the local stations. Will this new coupler give me better reception than the old one?"

Answer—The new loose coupler will have a greater wave range than the old one, but the reception will not be intensified by the larger loose coupler. You can improve the tuning ability of your set by shunting a variable condenser across the secondary of the coupler."

WJZ—Newark 360 Metres

9 A. M.—Early farm prices; musical programme.
 12 M.—Opening prices on bonds and stocks; grain, coffee and sugar; midday farm prices; weather forecast; musical programme.
 11:55 to 12 M.—Arlington time signals.
 1 P. M.—Midday prices on bonds and stocks; grain, coffee and sugar; musical programme.
 2:30 P. M.—Final farm prices; weather reports; shipping news; iron and steel review.
 3:45 P. M.—"Modern Rugs" by House and Garden.
 7 P. M.—Final baseball scores of the American, National and International League games.
 7:10 P. M.—Bedtime Stories by Thornton Burgess.
 9 P. M.—"Weekly Reports on Conditions of Leading Industries" by R. D. Wyckoff, editor of the Magazine of Wall Street; final baseball scores; location of ships at sea; by the Radio Corporation of America; closing prices of stocks, bonds, grain, coffee and sugar.
 8:15 P. M.—Literary evening conducted by the editorial staffs of the Outlook, the Scientific American and Harper & Bros.
 10:20 P. M.—Opera recited by Amy Grant, teacher of the speaking voice.
 10:52 P. M.—Standard Time signals.
 11:01 P. M.—Official weather forecast.
 11:02 P. M.—Dance music by the Hollywood Five under the direction of Charles Rappaport.

WOR—Newark 360 Metres

2:30 P. M.—Piano recital by John Hepler, blind pianist of Ridgewood, N. J. Programme: a. "Narcissus," Nevins; b. "To Spring," Greig; c. "Polonaise," Chopin; d. "Prelude C Minor," Bachmann.
 2:50 P. M.—Miss Elsa Greenwood, well known soprano of Newark, will sing a group of musical comedy numbers. Programme to be announced over radio.
 3:00 P. M.—Popular numbers by John Hepler. Programme: a. "Three o'clock in the morning," b. "Tumbling," c. "Georgette," d. "Nobody Lies."
 3:30 P. M.—Second of a series of lectures by Adalene Monzel, President of the League of Larger Life of New York. "The Philosophy of Ralph Waldo Emerson."
 4:15 P. M.—Baseball scores.
 4:20 P. M.—Musical selections. Programme: "Evening," Chinese; b. "Where the Lazy Mississippi Flows," c. "Southern Roses Waltz."
 4:30 P. M.—"Man in the Moon Stories for the Children," copyright Newark Sunday Call.

RADIO NEWS 25 CENTS
 "THE 100% WIRELESS MAGAZINE"
Radio's Greatest Magazine
 We exceed the circulation to **OVER 235,000 COPIES**
 This is the authoritative magazine in the hands of the beginner, the amateur and the professional.
AT ALL NEWSSTANDS
 25c the Copy
 Or Direct by Mail, \$2.50 a Year
 Circulation Building Co., 121 John Street, New York City

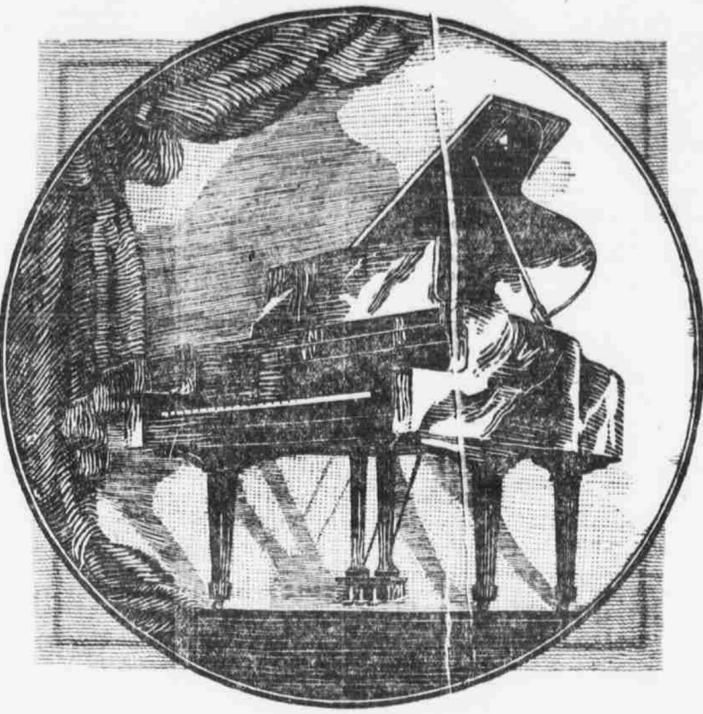
GRAND RAPIDS FURNITURE
 100 WEEK OPENS AN ACCOUNT
 SPECIALS THIS WEEK ONLY.
 OUR NEW CREDIT TERMS
 \$3.00 Delivers \$50
 \$5.00 " \$100
 \$10.00 " \$200
 \$15.00 " \$300

FISHER BROS COLUMBUS AVE BET. 103rd & 104th ST
 4-Piece Dining Room Suite \$94.00
 4-Piece Living Room Suite 19.75
 2-Piece Living Room Suite 116.00
 4-Piece Bed Room Suite 85.00
 Library Table, mahogany finished 14.75
 EVERYTHING FOR THE HOME. OPEN SATURDAY EVENINGS. 103rd St. Subway Station 2 blocks away.



It Is Ready—America's Greatest Sale of Pianos and Player Pianos

New and Rebuilt—at America's Lowest Prices



Hundreds and hundreds of instruments, many of illustrious name and famous when ever the finest musical quality is sought—Instruments guaranteed by Loeser's and offered by Loeser's at irresistibly low prices, on irresistible terms

- Kranich & Bach** **Mason & Hamlin**
Steinway **Chickering** **Hardman**
Estey **Bradbury** **Knabe**
W. P. Haines & Co. **Sterling** **And Many More**

Tomorrow, on the stroke of 9, it begins—the Annual October Piano and Player Sale at Loeser's—a wonderful store event that has never been quite so wonderful before.

And to show that this is no idle statement, we offer as proof the fact that not only were we obliged to increase our shop facilities for making these Pianos and Players ready, but it required a force of workmen at most twice the size of any force we ever before employed for the purpose!

There are more instruments in this sale than ever before, more fine makes than ever before, and the prices provide what will be found to be the greatest values ever known in a sale of this kind.

The gilt-edge makes listed above will be in the sale at unheard of low prices. In other good makes there will be Upright Pianos for less than \$100, with a specially fine group at \$150. Beautiful Grand Pianos for as little as \$450! Players as low as \$130, with some of the best known makes in existence for as little as \$300.

And Every Instrument Has Been Put in Perfect Playing Condition. And Every One Will Be Fully Guaranteed, No Matter How Little One May Pay for It. This Is Your Chance and Your Family's Chance to Have Music—Music from a Good Instrument—Within Your Means—on Terms You Can Afford.

The List Below Is But a Partial One—There Will Be Hundreds More Instruments of Reputation, All of Which Have Been Accepted By Us in Part Payment of New Pianos and Players—and That Were Only Accepted By Loeser's in the First Place Because Our Examination of Them Proved That They Could Easily Be Put in Perfect Playing Order.

NEW Pianos and Players Bearing Old Names Are Offered at Very Special Prices

Special No. 1 is an Upright Piano at \$298—a make that has been favorably known for almost a century. These will be found a wonderful buy. See them! Try them for yourself.

Special No. 2 is a Baby Grand Piano at \$545—these are of a make we sell regularly at a much higher price. They are of latest design and of beautiful rich tone and splendid action.

Special No. 3 is a Player-Piano at \$338—a make that is standard with Loeser's and equipped with exceptional Player features—the latest of everything. Handsome mahogany finish.

Note: The Grand Pianos may be found over at slightly shoppings.

Player-Pianos	Upright Pianos
Approximate Price if Bought New Today	Approximate Price if Bought New Today
Chopin..... \$395	Capin..... \$350
Meldorf..... 295	Ernest Gabler..... 90
Whittier (used)..... 295	Howard..... 95
Aerion..... 395	James & Holstrom..... 95
Milton..... 425	Lipp..... 95
Steinway (used)..... 1,100	Stadie & Son..... 95
Gordon..... 495	Walters..... 95
W. P. Haines..... 700	Ernest Gabler..... 115
Eatey..... 595	Matthews..... 115
	Peck..... 115
	Andrus..... 125

Upright Pianos	Upright Pianos	Upright Pianos
Approximate Price if Bought New Today	Approximate Price if Bought New Today	Approximate Price if Bought New Today
Gilbert..... \$125	Pease..... \$400	Sterling..... \$475
Midner..... 125	Rogers..... 175	Weser..... 400
Mathushek & Sons..... 125	Singer..... 175	H. Waters..... 475
Schubert..... 125	Winterroth..... 175	Tway..... 400
Sautter & Durek..... 125	Goetz..... 175	Walters..... 353
J. Widoff..... 100	Pease..... 400	Exner..... 363
Doylemarx..... 300	Sterling..... 400	Hamilton..... 375
Trowbridge..... 365	Walters..... 175	Walters..... 353
Gibson..... 325	Winterroth..... 350	Fischer..... 500
Billings..... 325	Sterling..... 475	Cabel Nelson..... 485
Hahn..... 325	Anderson..... 385	Wabster..... 430
Peck & Sons..... 500	Bradbury..... 375	De Rivas & Harris..... 595
Schuman..... 375	Bradbury..... 375	Hamman..... 550
Mathushek..... 375	Goetz..... 375	Kroeger..... 300
Bradford..... 550	Heller..... 580	Whitman..... 385
Harrington..... 575	Huntington..... 565	Kranich & Bach..... 700
Hallet & Cumstren..... 400	Pease..... 400	Kranich & Bach..... 700
Leckerling..... 550	Richardson..... 385	Chickering..... 700
Thalberg..... 550	Sterling..... 475	Mason & Hamlin..... 900
Rogers..... 550	Cable..... 375	Gordon..... 450
Chandler & Held..... 375	Arlington..... 385	Kranich & Bach..... 700
Replogle..... 325	Sterling..... 400	
Schofer..... 325	Altenberg..... 400	
Wuertz..... 350	Baus..... 195	
Campbell..... 325	Bradbury..... 650	
Wilster..... 385	Greve..... 595	
Ellington..... 375	Hamilton..... 350	
Spies..... 375	Schiller..... 395	
Walters..... 375	Sterling..... 530	
James & Holstrom..... 450	Sterling..... 195	
Emerson..... 475	Vose & Sons..... 475	
Fischer..... 600	Walters..... 375	
Brown & Simpson..... 325	Walters..... 375	
Bradbury..... 375	Cameron..... 375	
Bradbury..... 600	Gilbert..... 875	
Geo. Guild..... 575	Sterling..... 500	
Mylius..... 225	Schleicher & Son..... 400	

Upright Pianos	Approximate Price if Bought New Today	Sale Price
Sterling..... \$475		\$200
Weser..... 400		200
H. Waters..... 475		200
Tway..... 400		215
Walters..... 353		225
Exner..... 363		225
Hamilton..... 375		225
Walters..... 353		225
Fischer..... 500		235
Cabel Nelson..... 485		235
Wabster..... 430		240
De Rivas & Harris..... 595		250
Hamman..... 550		250
Kroeger..... 300		275
Whitman..... 385		275
Kranich & Bach..... 700		275
Kranich & Bach..... 700		285
Chickering..... 700		300
Mason & Hamlin..... 900		325
Gordon..... 450		395
Kranich & Bach..... 700		465

Player-Grands
 THERE are few Player-Grand Pianos in the sale. But because they are not numerous we do not list them though they afford a rare chance for those who are early enough.

Grand Pianos
 WHILE the list of Grand Pianos is not a long one, it comprises some real prizes. Some of them used pianos, others very slightly shop-worn. All of them remarkably low priced.

Approximate Price if Bought New Today	Sale Price
Bradbury (used)..... \$1,250	\$450
W. P. Haines..... 625	535
Milton..... 625	535
Knabe (used)..... 1,450	785
Bradbury..... 1,250	795
Chickering (used)..... 1,450	795
Steinway (used)..... 1,600	850
Kranich & Bach..... 1,085	985

The Piano House of **Frederick Loeser & Co., Inc.** BROOKLYN—NEW YORK

