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DEPARTMENT OF COMMERCE  
BUREAU OF STANDARDS  
WASHINGTON

Letter  
Circular  
LC 66

(June 1, 1922)

LIST OF MANUFACTURERS AND SOLE UNITED STATES

DISTRIBUTORS OF RADIO RECEIVING EQUIPMENT

(Subject to Revision)

The following list of companies has been compiled from information obtained directly from the several companies mentioned or from recent publications. The names of additional manufacturers may be obtained from current radio periodicals.

No attempt has been made to list retail dealers, jobbers and companies holding local, state or district selling licenses.

The Bureau of Standards welcomes corrections and additions to this list. If any manufacturer finds that his firm name has been incorrectly listed, should be listed under additional subheadings, or is not listed at all we would be pleased to have him write the Bureau of Standards, Radio Laboratory, Washington, D. C. It should be noted particularly that the list includes only manufacturers and sole United States distributors. Catalogues or descriptive pamphlets are requested to accompany a request for listing.

The Bureau of Standards takes no responsibility in connection with any transaction which may be had with any of the persons or companies whose names are given herein, nor does the Bureau of Standards take any responsibility for the freedom from patent infringements of any of the apparatus made or sold by manufacturers here listed. It is understood that the listing of a manufacturer or jobber does not mean that the Bureau of Standards has approved the apparatus made or sold by that company.

THE HISTORY OF THE  
CITY OF BOSTON

BY

JOHN B. HENNING, Esq.,  
of the City of Boston.

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- A1 - Ace Battery Mfg. Corp., 495 Broome St., New York, N. Y.
- A2 - Acme Apparatus Co., 186 Mass. Ave., Cambridge 39, Mass.
- A3 - Adams-Morgan Co., Upper Montclair, N. J.
- A4 - Ajax Electric Co., Palmer St., Cambridge 38, Mass.
- A5 - All-American Electrical Mfgs., 1516 No. Lorel Ave., Chicago, Ill.
- A6 - Allen-Bradley Co., 289 Greenfield Ave., Milwaukee, Wisc.
- A7 - American Brass Products Co., Radio Division, Pottstown, Pa.
- A8 - American Electric Company, State and 64th St., Chicago, Ill.
- A9 - American Electrical Works, Phillipsdale, R. I.
- A10 - American Electro Technical Appliance Company, 235 Fulton St., New York, N.Y.
- A11 - American Ever Ready Company, Long Island City, N. Y.
- A12 - American Hard Rubber Co., 11 Mercer St., New York, N. Y.
- A13 - American Insulator Corporation, New Freedom, Pa.
- A14 - American Radio Equipment Co., Incorporated, 31 New St., Newark, N. J.
- A15 - American Radio & Research Corp., 207 College Ave., Medford Hillside, Mass.
- A16 - American Radio Sales and Service Company, The, Mansfield, Ohio.
- A17 - American Vulcanized Fibre Co., Wilmington, Del.
- A18 - Amolecco Company, The, Cincinnati, Ohio.
- A19 - Andrea, Frank A. D., 1882 Jerome Ave., New York, N. Y.
- A20 - Apex Electrical Specialty Co., 83 Orange St., Newark, N. J.
- A21 - Atherton Storage Battery Co., Macomb, Ill.
- A23 - Automatic Electrical Devices Company, The, 128 West 3rd St.,  
Cincinnati, Ohio.
  
- B1 - Baehm-Paper Co., Inc., 219 Fulton St., New York, N. Y.
- B2 - Baldwin, Nathaniel, Salt Lake City, Utah.
- B3 - Baldwin Radio Elec. Mfg. Co., 1516 Emmons Avenue, Sheepshead Bay,  
Brooklyn, N. Y.
- B4 - Banister & Pollard Co., 206-208 Market St., Newark, N. J.
- B5 - Belden Manufacturing Company, 23rd St & Western Ave., Chicago, Ill.
- B6 - Benwood Co. Inc. The, Corner 13th & Olive Streets, St. Louis, Mo.
- B7 - Bliss (R.W.) Company, 139 Hollis Avenue, Atlantic, Mass.
- B8 - Boissonnault (G.) Company, Inc., 25 Dey St., New York, N. Y.
- B9 - Boonton Rubber Mfg. Co., Boonton, N. J.
- B10 - Bowman, (A.W.) & Company, 23 Church St., Cambridge, Mass.
- B11 - Brach, (L.S.) Mfg. Co., 127-129 Sussex Ave., Newark, N. J.
- B12 - Brandes (C.) Inc., 237 Lafayette St., New York, N. Y.
- B13 - Brandywine Fibre Products Co., Wilmington, Del.
- B14 - Bristol Co., The, Waterbury, Conn.
- B15 - Bronx Radio Equipment Company, 687 Courtlandt Avenue, New York, N. Y.
- B16 - Bunnell, (J.H.) & Co., 32 Park Place, New York, N. Y.
- B17 - Burgess Battery Company, Madison, Wisc.
  
- C1 - Campbell Fiber Co., Stanton, Del.
- C2 - Chelsea Radio Company, 150 Fifth St., Chelsea 50, Mass.
- C3 - Chicago Furniture Mfg. Co., The, 1346 N. Branch St., Chicago, Ill.
- C4 - Chicago Radio Apparatus Co., Inc., 508 South Dearborn St., Chicago, Ill.
- C5 - Chicago Radio Laboratory, 6433 Ravenswood Ave., Chicago, Ill.
- C6 - Cino Radio Mfg. Company, 218 West 12th St., Cincinnati, Ohio.
- C7 - Clapp Eastham Company, 139 Main St., Cambridge, Mass.



- C8 - Compo-Site, Inc., 205 Astor St., Newark, N. J.
- C9 - Condensite Company of America, Bloomfield, N. J.
- C10 - Connecticut Telephone & Electric Company, Meriden, Conn.
- C11 - Continental Electric Company, 117-119 E. 129th St., New York, N. Y.
- C12 - Continental Fibre Company, The, Newark, Del.
- C13 - Continental Radio & Electric Corporation, Dept. B 5, 6 Warren St.,  
New York, N. Y.
- C14 - Copper-Clad Steel Company, Braddock P. O., Rankin, Pa.
- C16 - Coto-Coil Co., Providence, R. I.
- C17 - Cox Manufacturing Company, Cleveland, Ohio.
- C18 - Crosley Manufacturing Co., Cincinnati, Ohio.
- C19 - Cutting & Washington Radio Corporation, 35 Water St., New York, N. Y.
- C20 - Chicago Mica Co., 9 Campbell St., Valparaiso, Ind.
  
- D1 - Dalton, Whittier, True Co., 2905 West Madison St., Chicago, Ill.
- D2 - Dane Molding Co., Inc., Newark, N. J.
- D3 - Dayton Insulating Die Co., Dayton, Ohio
- D4 - DeForest Radio Telephone & Telegraph Co., 1415 Sedgwick Ave.,  
New York, N. Y.
- D5 - Delaware Hard Fibre Co., Wilmington, Del.
- D6 - Diamond State Fibre Company, Bridgeport, Pa.
- D7 - Doelittle (F.M.) Company, New Haven, Conn.
- D8 - Doron Bros. Electrical Co., Hamilton, Ohio.
- D9 - Dreyfuss (F.M.) Co., 150 Chambers St., New York, N. Y.
- D10 - Dubilier Condenser Co. Inc., 217-219 Centre St., New York, N. Y.
- D11 - Duck (William B.) Co., The, 224-226 Superior St., Toledo, Ohio
- D12 - Dudlo Manufacturing Co., Fort Wayne, Ind.
- D13 - Duranoid Mfg. Co., Newark, N. J.
- D14 - DX Radio Company, Summit, Ill.
  
- E1 - Edison Storage Battery Co., Orange, N. J.
- E2 - Elastoid Fibre Co., Waltham, Mass.
- E3 - Electrical Products Mfg. Co., 69 Sprague St., Providence, R. I.
- E4 - Electrical Specialty Co., 48-50 South Front St., Columbus, Ohio.
- E5 - Electric Storage Battery Co., The, Allegheny Ave. & 19th St.,  
Philadelphia, Pa.
- E6 - Electrose Mfg. Co., 60 Washington St., Brooklyn, N. Y.
- E7 - Essex Wireless Specialty Co., 32 New Street, Newark, N. J.
- E8 - Etched Products Corp., Long Island City, N. Y.
- E9 - European Radio Co., 1342 East 22nd St., Brooklyn, N. Y.
- E10 - Everett Electric Corporation, 320 Broadway, New York, N. Y.
  
- F1 - Federal Telephone & Telegraph Co., 1738 Elmwood Ave., Buffalo, N. Y.
- F2 - Fibre Can Corporation, 4241 Ogden Ave., Chicago, Ill.
- F3 - Firth (John) & Company, Inc., 18 Broadway, New York, N. Y.
- F4 - Formica Insulation Company, The, 4614 Spring Grove Avenue,  
Cincinnati, Ohio.
- F5 - France Mfg. Company, The, Berea Road & W. 104th St., Cleveland, Ohio.
- F6 - Frost, Herbert H., 154 W. Lake Street, Chicago, Ill.
  
- G1 - Galena Crystal Mfg. Co., 464 Bushwick Ave., Brooklyn, N. Y.
- G2 - Garfield Mfg. Co., Garfield, N. J.

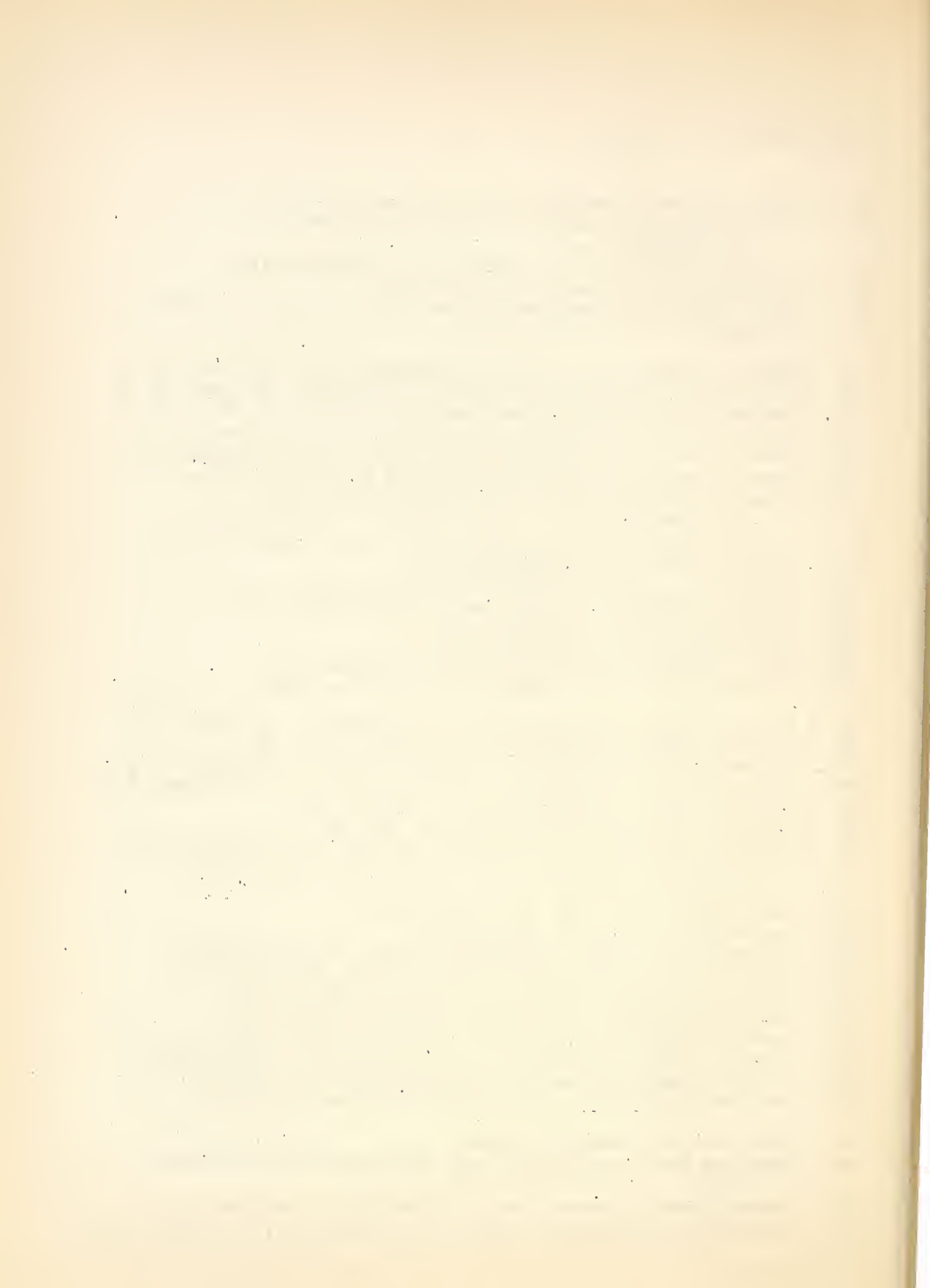


- G3 - General Apparatus Company, Inc., The, 570 West 134th St., New York, N. Y.
- G4 - General Bakelite Co., 2 Rector St., New York, N. Y.
- G5 - General Electric Co., Schenectady, N. Y.
- G6 - General Insulate Co., 1008 Atlantic Ave., Brooklyn, N. Y.
- G7 - General Lead Batteries Co., Newark, N. J.
- G8 - General Radio Company, Mass. Ave. & Windsor St., Cambridge, Mass.
- G9 - Globe Battery Co., 1219 S. Wabash Ave., Dept. R, Chicago, Ill.
- G10 - Goodman, L. W., Drexel Hill, Pa.
- G11 - Goodrich (B.F.) Co., Akron, Ohio
- G12 - Grebe, (A.H.) & Co., Inc., 70 VanWyck Blvd., Richmond Hill,  
New York, N. Y.
- G13 - Guthrie Radio Co., 108 S. La Salle St., Chicago, Ill.
- G14 - Globe Phone Manufacturing Co., Reading, Mass.
  
- H1 - Hammond Radio Equipment & Supply Co., Box 340, Central Station,  
Toledo, Ohio.
- H2 - Hi-Grade Wireless Instrument Co., Asheville, N. C.
- H3 - Hipwell Manufacturing Co., 825 North Avenue, N. S. Pittsburgh, Pa.
- H4 - Holtzer-Cabot Electric Co., The, 115 Amory St., Boston 19, Mass.
- H5 - Horne Manufacturing Co., The, 243 Mercer St., Jersey City, N. J.
  
- I1 - Industrial Molded Materials Co., Woodbury, N. J.
- I2 - International Insulating Corporation, Springfield, Mass.
- I3 - International Radio Corporation, 42 Branford Place, Newark, N. J.
- I4 - Irvington Varnish & Insulator Co., Irvington, N. J.
  
- J1 - Jackson Battery Company, 1124 B Jackson Boulevard, Chicago, Ill.
- J2 - Jacobus, E, 81 Orange St., Newark, N. J.
- J3 - Jewell Electrical Instrument Co., Chicago, Ill.
- J4 - Johnson, Geo. F., 625 Black Ave., Springfield, Ill.
- J5 - Johns-Pratt Co., The, Hartford, Conn.
- J6 - Jones Radio Company, The, 384 Monroe St., Brooklyn, N. Y.
- J7 - Joy & Kelsey, 4021 West Kinzie Street, Chicago, Ill.
  
- K1 - Kalb Electric Co., 7323 Manchester Ave., St. Louis, Mo.
- K2 - Karlowa Radio Company, 611 Best Building, Rock Island, Ill.
- K3 - Kellogg Switchboard Co., Chicago, Ill.
- K4 - Kennedy (Colin B.) Company, Inc., The, Rialto Bldg., San Francisco, Calif.
- K5 - Killoch (David) Company, 57 Murray Street, New York, N. Y.
- K6 - Kimley Electric Company, 290 Winslow Avenue, Buffalo, N. Y.
- K7 - King-Amplitone, The, 82 Church St., New York, N. Y.
- K8 - Klaus Radio Company, Eureka, Ill.
- K9 - Klitzen Radio Manufacturing Co., Racine, Wisc.
- K10 - Klosner Improved Apparatus Co., The, 2402 Crotona Avenue, New York, N. Y.
- K11 - Knott (E.R.) Machine Co., Boston 27, Mass.
- K12 - Koch, John R., 200 Capitol St., Charleston, W. Va.
- K13 - Kuebler Radio Company, The, 24 Boody Building, Toledo, Ohio.
  
- L1 - Larney-Smith Radio Mfg. Co., 149 Lafayette St., New York, N. Y.
- L2 - Laughter, V. H., P. O. Box 78, Memphis, Tenn.





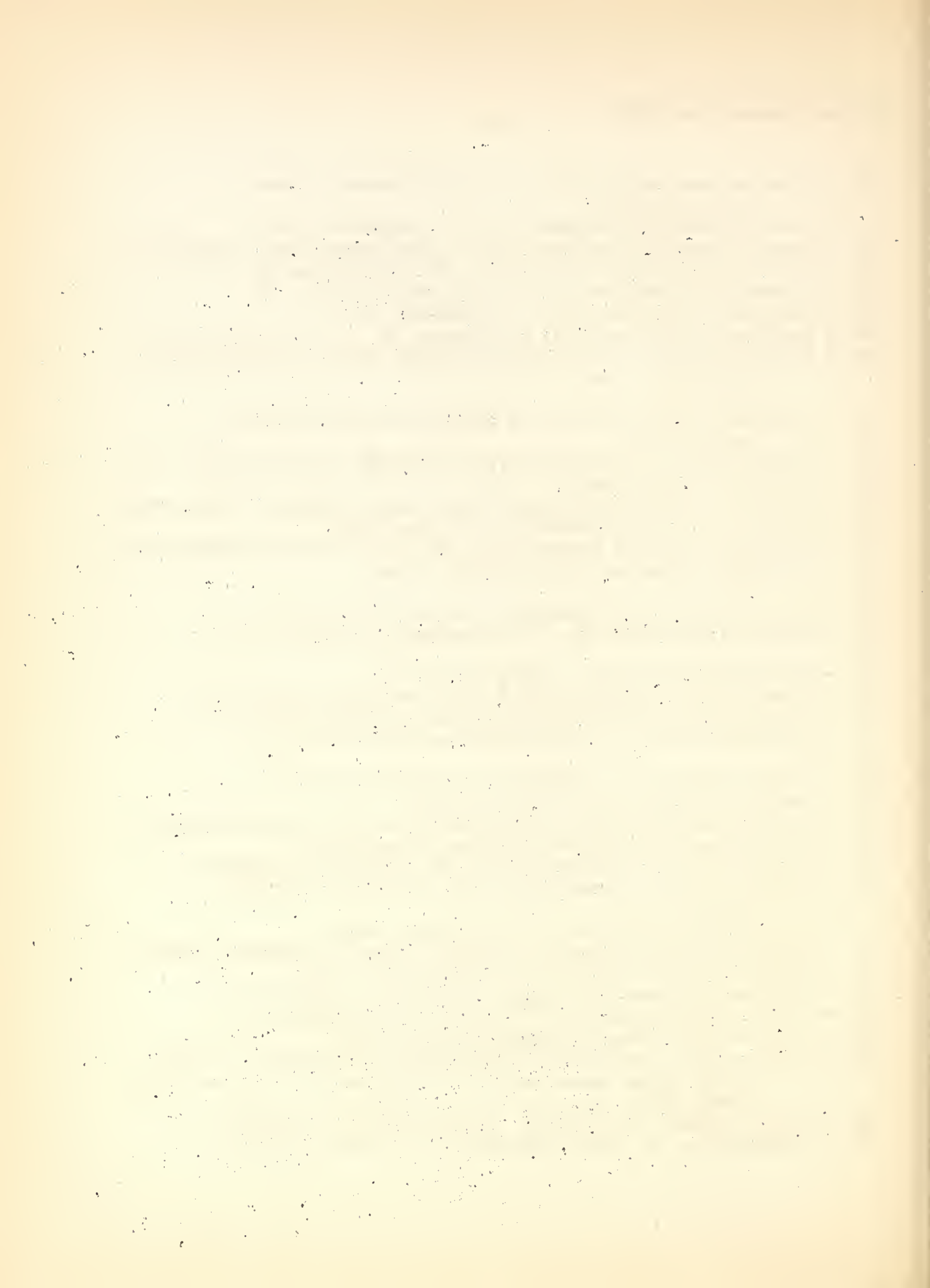
- L3 - Lawsam Electrical Company, 122 Fifth Ave., New York, N. Y.
- L4 - Leeds & Northrup Company, The, 4901 Stenton Ave.,  
Philadelphia, Pa.
- L5 - Liberty Battery Co., 4243 Armitage Ave., Chicago, Ill.
- L6 - Lovering (C.P.) Company, Elenboro, W. Va.
- L7 - Loyd Wireless Telephone Corporation, 709 - 6th Ave., New York, N. Y.
- L8 - Luzerne Rubber Co., Trenton, N. J.
  
- M1 - Magnavox Company, The, 2701 East Fourteenth St., Oakland, Calif.
- M2 - Magno Storage Battery Corporation, Aeolian Bldg., New York, N. Y.
- M3 - Men-Day Corporation, 135 West 33rd St., New York, N. Y.
- M4 - Manhattan Electrical Supply Co., 17 Park Place, New York, N. Y.
- M5 - Marko, (Paul M.) & Co., Inc., 1402 Atlantic Ave., Brooklyn, N. Y.
- M6 - Marshall-Gerken Co., The, 25-29 Ontario St., Toledo, Ohio.
- M7 - Mazda Radio Manufacturing Co., 3505-11 Perkins Ave.,  
Cleveland, Ohio.
- M8 - McCorkle Ensign Co., Inc., 434-436 Erie St., Elmira, N. Y.
- M9 - McTighe Battery Co., Wilkinsburg, Pa.
- M10 - Mills, W. A., 103 Park Avenue, New York, N. Y.
- M11 - Mitchell-Rand Mfg. Co., 18 Vesey St., New York, N. Y.
- M12 - Mu-rad Laboratories, Astury Park, N. J.
- M13 - Murdock (Wm. J.) Co., Chelsea, Mass.
- M14 - Mica Insulator Co., 68 Church St., New York, N. Y.
- M15 - Million Point Mineral Company, The, Needles, Calif.
  
- N1 - National Airphone Corporation, 20-22 Hudson St., New York, N. Y.
- N2 - National Carbon Company, Inc., Long Island City, N. Y.
- N3 - National Electrical Novelty Co., 53 Walker St., New York, N. Y.
- N4 - National Electric Supply Co., 1330 New York Ave., Washington, D. C.
- N5 - National Fibre and Insulation Co., Yorklyn, Del.
- N6 - National Lead Co., 111 Broadway, New York, N. Y.
- N7 - National Phonograph Co., 2813-25 N. Ashland Ave., Chicago, Ill.
- N8 - National Radio Institute, Radio Headquarters, Dept. 1083,  
Washington, D. C.
- N9 - Nelson (I.R.) Co., Bond St., Newark, N. J.
- N10 - New Era Radio Sales Co., Elmira, N. Y.
- N11 - Newman-Stern Co., The, Newman-Stern Bldg., Cleveland, Ohio.
- N12 - New York Wireless Institute, 154 Nassau St., New York, N. Y.
- N13 - Niagara Insul-Bake Specialty Co., Niagara Falls, N. Y.
- N14 - Nola Radio Company, 134 Chartres St., New Orleans, La.
- N15 - Norris Electric Specialties Co., 126 Liberty St., New York, N. Y.
- N16 - Northern Industrial Chemical Co., 11 Elkens St., Boston, Mass.
- N17 - Northwest Radio Service Co., 1637 Westlake Ave., Seattle, Wash.
- N18 - Novo-Manufacturing Co., 424 W. 33rd St., New York, N. Y.
  
- O1 - Ohio Brass Co., Mansfield, Ohio.
- O2 - Omnigraph Manufacturing Co., The, 26 Cortlandt St., New York, N. Y.
  
- P1 - Pacent Electric Company, Inc., 150 Nassau St., New York, N. Y.
- P3 - Paquin, (J.M.) Electrical Shop, The 787 Queen St., W., Toronto, Ont.



- P4 - Parlin Mfg. Co., Grand Ave., San Rafael, Calif.  
P5 - Pennsylvania Wireless Mfg. Co., New Castle, Pa.  
P6 - Perry, (Frank P.) & Sons, Newton Center, Mass.  
P7 - Philadelphia Storage Battery Co., Ontario & C St.,  
Philadelphia, Pa.  
P8 - Precision Equipment Co., The, 2437 Gilbert Ave., Cincinnati, Ohio.  
P9 - Premier Rubber & Insulation Co., Dayton, Ohio.  
P10 - Prest-O-Lite Company, 30 E. 42nd St., New York, N. Y.  
P11 - Price Bros. Inc., Frederick, Md.  
P12 - Professional Radio Assembly Company, 133 Crosby St., New York, N. Y.  
P13 - Proudfoot, G. M., 361 East Ohio Street, Chicago, Ill.
- Q1 - Quality Radio Shop, Richmond, Ind.
- R1 - Radio Audion Company, 90 Oakland Ave., Jersey City, N. J.  
R2 - Radio Corporation of America, 233 Broadway, New York, N. Y.  
R3 - Radio Distributing Company, 4 West Park St., Newark, N. J.  
R4 - Radio Electric Company, The, 3807 Fifth Avenue, Pittsburgh, Pa.  
R5 - Radio Instrument Company, 10th & D. Streets N. W.,  
Washington, D. C.  
R6 - Radio Instrument & Panel Co., Box 75, Cicero, Ill.  
R7 - Radiomart Co., The, 1236 American Ave., Long Beach, Calif.  
R8 - Radio Service Laboratories, Inc., Asbury Park, N. J.  
R9 - Radio Service & Mfg. Co., Lynbrook, Long Island, N. Y.  
R10 - Radio Shop, The, Bank of Italy Bldg., San Jose, Calif.  
R11 - Radio Testing Station, 25 Sturges St., Dept. R-4, Binghamton, N. Y.  
R12 - Rauland Manufacturing Co., 35 South Dearborn St., Chicago, Ill.  
R13 - Ray Battery Company, Ypsilanti, Mich.  
R14 - Redmanol Chemical Products Co., 636 W. 22nd St., Chicago, Ill.  
R15 - Remler Radio Mfg. Co., 163 Sutter St., San Francisco, Calif.  
R16 - Rhamstine, J. Thos., 2152 E. Larned St., Detroit, Mich.  
R17 - Riggs Mfg. Co., The, Urbana, Ohio.  
R18 - Riley-Klotz Mfg. Co., 17-19 Mulberry St., Newark, N. J.  
R19 - Rogers Fibre Co., 43 W. 16th St., New York, N. Y.  
R20 - Roller-Smith Company, 233 Broadway, New York, N. Y.  
R21 - Roebling's (John A.) Sons Co., Trenton, N. J.  
R22 - Rome Wire Co., Rome, N. Y.
- S1 - Shaw Insulator Co., 5 Kirk Place, Newark, N. J.  
S2 - Ship Owners Radio Service, Inc., 80 Washington St., New York, N. Y.  
S3 - Shotton Radio Mfg. Co., 315 Connell Building, Scranton, Pa.  
S4 - Siemon Hard Rubber Corp., Bridgeport, Conn.  
S5 - Signal Electric Manufacturing Co., Menominee, Mich.  
S6 - Simplex Radio Company, 1013 Ridge Avenue, Philadelphia, Pa.  
S7 - Sohn (Herman H.) & Co., 65 Douglas Ave., Providence, R. I.  
S8 - Somerville Radio Laboratory, 173 Washington St., Boston, Mass.  
S9 - Spaulding (J) & Sons Co., Tonawanda, N. Y.  
S10 - Specialty Insulation Mfg. Co., Hoosick Falls, N. Y.  
S11 - Standard Fibre Co., Somerville, Mass.  
S12 - Standard Metal Mfg. Co., 237 Chestnut St., Newark, N. J.  
S13 - Star Mfg. Co., Newark, N. J.



- S14 - Sterling Manufacturing Co., The, 2832 Prospect Avenue,  
Cleveland, Ohio.
- S15 - Stromberg-Carlson Telephone Mfg. Co., Rochester, N. Y.
- S16 - Stuart Products Corporation, 663 W. Washington Blvd., Chicago, Ill.
- S17 - Stuckeman Bros. Inc., 18 Ruth St., Pittsburgh, Pa.
- S18 - Superadio Corporation, 2674 Bailey Ave., New York, N. Y.
- S19 - Supremus Radio Laboratory, West Norwood, N. J.
- S20 - Sterling Varnish Co., The, Pittsburgh, Pa.
- S21 - Stewart Storage Battery Company, Central Avenue at Sixth Street,  
Marshfield, Wisc.
  
- T1 - Telephone Maintenance Co., 20 South Wells St., Dept. C.  
Chicago, Ill.
- T2 - Transportation Engineering Corp., 200 Fifth Ave., New York, N. Y.
- T3 - Tresco, Davenport, Iowa.
- T4 - Trumbull, Vanderpoel Electric Manufacturing Company, Bantam, Conn.
- T5 - Tufts, W. & G., 336 Newbury St., Boston, Mass.
- T6 - Turney, (Eugene T.) Laboratories, Inc., 351-6th Ave., Newark, N. J.
- T7 - Tuska (C.D.) Company, The, Hartford, Conn.
  
- U2 - U. S. Light & Heat Corporation, Niagara Falls, N. Y.
- U3 - United States Rubber Co., 1790 Broadway, New York, N. Y.
  
- V1 - V-De-Co-Radio Mfg. Co., Asbury Park, N. J.
- V2 - Victory Radio Company, 11302 Euclid Ave., Cleveland, Ohio.
- V3 - Volatone Co., The, 900 Lakeside Place, Chicago, Ill.
- V4 - Vulcanized Rubber Co., 251 Fourth Ave., New York, N. Y.
  
- W1 - Western Electric Co., 463 West St., New York, N. Y.
- W2 - Westfield Machine Co., Westfield, Mass.
- W3 - Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.
- W4 - Westinghouse Union Battery Company, Swissvale, Pa.
- W5 - Weston Electrical Instrument Co., 173 Weston Ave., Newark, N. J.
- W6 - Witherbee Storage Battery Co., Inc., 643-655 W. 43rd St.,  
New York, N. Y.
- W7 - Wilcox Laboratories, Inc., The, Lansing, Mich.
- W8 - Willard Storage Battery Co., 246 East 131st St., Cleveland, Ohio.
- W9 - Wilmington Fibre Specialty Co., Wilmington, N. J.
- W10 - Wireless Equipment Co., Inc., 32 Austin St., Newark, N. J.
- W11 - Wireless Improvement Co., 66 York St., Jersey City, N. J.
- W12 - Wireless Manufacturing Company, Canton, Ohio.
- W13 - Wireless Shop, The, 511 W. Washington St., Los Angeles, Calif.
- W14 - Wireless Specialty Apparatus Co., 76 Atherton St., Jamaica Plain,  
Boston, Mass.
- W15 - Wizard Battery Co., Dept. R., 1315 - 42nd St., Brooklyn, N. Y.
- W16 - Workrite Mfg. Co., The, 5604 Euclid Ave., Cleveland, Ohio.



## Part I. - - Accessories

1. Ammeters
  - (a) Direct Current - F1, G5, H2, J3, P5, R2, R20, S5, S8, W3, W5.
  - (b) Radio Frequency - F1, G5, G8, H2, J3, S5, P5, R20, S8, W3.
2. Amplifier Cabinets or Panels (one or more stages of amplification.)
  - (a) Audio-frequency - A2, A3, A15, A19, B7, B8, B15, C5, C6, C7, D4, E9, F1, F3, G5, G8, G12, H1, J6, K4, L7, M1, M3, M6, N14, N17, P5, P8, P13, R2, R5, S5, T3, T7, W1, W3, W10, W11, W12, W14.
  - (b) Radio audio-frequency - R2, P5.
3. Antenna and ground equipment
  - (a) Insulators (See insulating materials)
  - (b) Switches (See switches)
  - (c) Wire (See wire)
4. Automatic code sending device - B16, H4, K12, M4, N8, N10, N12, N14, O2, P6.
5. Batteries
  - (a) Dry
    1. Dry "B" batteries - A1, A11, B17, C7, E4, G3, H2, H3, N2, N14, N18, P5, R2, R3, S2, S8, S19.
    2. Dry cells (units) - B17, C7, F1, M4, N2, S16, S19.
  - (b) Storage
    1. "A" or filament batteries - A11, A21, B6, C4, C18, E1, E5, G7, G9, J1, K1, L5, M2, M4, N2, N14, P5, P7, P8, P10, R2, R13, S21, T1, T5, U2, W3, W4, W6, W8, W11.
    2. "B" or plate batteries - C4, G7, G12, H3, J1, K6, M5, M9, N2, N3, P1, R16, S19, T1, U2, V2, W3, W4, W8, W11, W15.
6. Binding Posts - A2, A15, A19, B7, B15, B16, C7, C17, F1, G6, G8, H2, K5, K9, L3, M3, M4, M6, N11, P4, P5, P8, R3, R4, R9, R11, S3, S5, T3, W7, W10.
7. Battery chargers - A23, B6, C7, F5, G5, P5, R17, S14, T2, W3.
8. Buzzers - A3, A4, B10, B16, C7, F1, G8, M4, P5, S5.
9. Cabinets - A15, B7, B16, C3, C5, C6, C18, F3, H2, J7, N7, N10, P8, S5, T3, V2.





10. Coils

- (a) Coil aeriels - B7, G5, K9, V1.
- (b) Duolateral - D4, E3, F1, J7.
- (c) Honeycomb - A15, D4, S8, W10.
- (d) Involute - T3
- (e) Layer wound - D12, G3, P1, R15.
- (f) Loading - A15, B7, C2, E3, G5, P8, S5, W14.
- (g) Single layer - B7, P8, R7, W14.
- (h) Spider web - T6, W10.
- (i) Tuning - B7, B16, C17, E3, G5, G8, G10, G12, H2, J7, M13, N4, P8, R3, S5.
- (j) Variable inductor - A3, A15, B3, B6, B7, B15, C4, C7, C18, D4, D14, E3, F1, G5, G8, G12, K9, M6, M13, P5, P8, R6, R10, R15, S5, S6, S19, T1, T3, T7, V2, W16.
- (k) Vario-coupler - A15, B3, B7, B15, B16, C4, C7, C18, D1, D4, D14, E4, F1, H2, K9, K12, K13, M6, M13, P5, P8, R3, R6, R7, R10, R15, S5, S6, T1, T3, T7, V2, W7, W16.

11. Coil mountings - A10, A18, B7, D4, F1, J7, P3, P8, S5, W10.

12. Condensers -

- (a) Variable air - A15, B7, B10, B16, C2, C7, C16, C18, D4, D11, F1, F3, G5, G8, G12, H5, J4, K4, M6, M7, M8, M13, M10, P4, P11, R2, S5, S17, T3, T7, W2, W10, W12, W13, W14.
- (b) Variable mica - C10, C18, D10, P4, S8.
- (c) Variable miscellaneous - P4.
- (d) Fixed
  - 1. Composition - B16, M13.
  - 2. Mica - A15, A19, C2, C4, C6, C7, D4, D10, G5, G12, H2, P8, R2, W14.
  - 3. Paper - A3, B16, C6, F1, G5, G8, M4, P4, W14.
- (e) Grid - A5, A15, B16, D4, F1, G5, G12, H2, J7, K9, M7, P5, P8, R2, R3, R15, S5, S8, W10, W11, W14.
- (f) Stopping - A3, A15, B6, D4, D14, F1, G5, H2, M13, P4, P8, R2, R3, S5, S8, T3, W14.

13. Couplers (receiving transformers) - A15, B7, B16, C7, G12, H5, K9, M13, P5, P8, P13, R3, R7, S5, S6, T3.

14. Crystal detectors - A3, A10, A15, A19, B7, B15, B16, C6, C7, D4, D11, F1, G5, G12, H2, J7, K9, L3, M4, M13, N11, P1, P4, P5, R2, R7, S5, S13, T1, T3, W2, W3, W7, W10, W11, W14.

15. Crystals - A19, B10, B16, D4, D11, G1, H2, J6, J7, M4, M13, M15, N11, P4, P8, R2, R11, S8, T3, W3, W10, W11, W14.



16. Dials - A3, A10, A15, A19, B6, B10, B15, B16, C2, C7, D4, D8, E8, F1, G5, G8, G12, H2, J7, K9, M3, M7, M13, P4, P8, R3, R15, S3, S5, S8, T7, W7, W10.
17. Electron tubes - C10, D4, F1, G5, R1, R2, W1, W3.
18. Electron tube detector cabinets or panels - A2, A3, A15, A19, B7, C4, C6, C7, C10, D4, D11, G5, G8, G12, H2, K9, K12, L7, M6, N10, N14, P4, P5, P8, F13, R2, R4, R7, R11, R15, S5, S19, T3, W10, W12.
19. Electron tube detector cabinets with one or more stages of amplification.  
A2, A3, A7, A15, A19, B7, B10, C4, D4, D14, E9, F1, F3, G5, G8, G12, H2, J7, K9, K12, M1, N14, P5, P8, P12, P13, R4, R10, S5, S18, S19, T1, T3, W3, W7, W10, W11, W12, W14.
20. Electron tube sockets - A3, A5, A15, A19, B7, B15, C2, C18, D4, D6, F1, F3, G5, G8, H2, H5, J7, K2, K8, K9, L1, L3, M1, M3, M7, M13, P4, P8, R2, R9, R15, R16, S5, S8, T3, T7, W7, W10, W12, W14.
21. Ground Clamps - K11, T1.
22. Insulating materials
- (a) Antenna insulators - B4, C9, D6, E6, F4, G6, K9, M7, M13, O1, P8, R2, S3, W3.
  - (b) Hard fiber - A17, B1, B7, B13, C1, C12, D5, D6, E2, F2, J5, M11, N5, R19, S9, S11, W9.
  - (c) Hard rubber - A12, G3, G11, L8, P9, S4, U3, V4.
  - (d) Lead-in insulators - E6, G5, G6, P8, R2, W3.
  - (e) Phenolic (Laminated) sheets (see panels) tubes, rods-  
C12, D6, F4, W3.
  - (f) Phenolic (Moulded) parts - A13, B5, B7, B9, C8, C9, D2, D3, D13, E6, G2, G4, G5, G6, I1, I2, J5, K3, L6, N6, N13, N16, P3, R14, S1, S10.
  - (g) Varnished or oiled cambric - B5, C20, G5, I4, M11, M14, S20.
  - (h) Varnished or oiled cambric tubing (Spaghetti) - B5, C20, G5, I4, M11, M14.
23. Keys - A3, A15, B10, B16, C7, F1, G5, G12, M4, M13, R2, S5, W10, W11, W14.
24. Knobs and pointers - A15, B7, B16, C4, D6, E6, F1, G5, G6, G8, G12, H2, M6, M7, P4, P5, R9, S3, S5, S8, T3, T7, W7.
25. Laboratory instruments - A15, B7, B16, F1, G8, G12, J3, L4, W3.



26. Loud speakers - A14, B8, B14, C11, C17, D7, E7, F1, F3, G12, H2, I3, K7, M1, M10, M13, R2, R3, P4, R9, R18, S7, S12, T1, V3, W3.
27. Name plates - E8.
28. Panels (laminated or moulded phenolic type) - C12, D6, F4, W3.
29. Regenerators (For converting nonregenerating sets to regenerative) - A15, B7, C5, R2, R7, W14.
30. Resistors -  
 (a) Filament rheostats - A3, A6, A15, A19, B10, B16, C7, D4, D11, F1, G5, G8, G12, H5, J7, K8, K9, K10, M4, M6, M13, P4, R2, P5, R11, R15, S3, S5, S19, T3, W7, W14.  
 (b) Grid leaks - A3, A15, B7, B16, C2, C7, D4, F1, G5, G12, J7, M4, M10, P5, P8, R2, R11, R15, S5, S19, W14.  
 (c) Potentiometers - A3, A15, B7, C7, F1, G8, G12, M7, R2, R15, W14.  
 (d) Stabilizers - G5, R2, W14.
31. Switches -  
 (a) Antenna or lightning - A15, A20, B11, B16, F1, G5, H5, J2, M13, P8, R2, R7, T1, T4, W3, W14.  
 (b) Battery - B7, G5, P5, S3.  
 (c) Panel - A3, A15, A19, B7, B15, B16, C7, D4, D11, F1, G8, H2, K5, K8, K9, L3, M6, M7, M15, P4, P5, R11, R15, S3, S8, T3, W7, W10.  
 (d) Send-receive or change-over - A15, B7, F1, G8, M13, R2, R7, S5, W14.
32. Switch points - A15, B7, B16, C6, C11, D11, F1, G8, K9, L3, M6, M7, P4, P5, P8, R3, R11, R15, S3, S5, S8, T3, W7, W10.
33. Telephone jacks and plugs - A15, B10, B16, F1, F3, F6, G12, H2, K12, L2, M7, M13, P1, R16, S3, S5, W7.
34. Telephone receivers - A8, B2, B8, B12, B16, C7, C10, D9, E10, F1, F3, F6, G14, H2, M4, M7, M13, M11, R2, H1, S2, S8, S15, W11.
35. Transformers -  
 (a) Amplifying  
 1. Audio frequency - A2, A3, A5, A15, A16, B6, C2, C5, C7, C18, D4, E3, F1, F3, G5, G8, G12, H2, J7, M1, M4, M7, M12, P1, R2, R16, S5, S19, T7, W10, W11, W14.  
 2. Radio frequency - A14, E7, E3, F3, G5, J7, Q1, R2, R5, R8, R12, W11, W14.  
 (b) Filament lighting - F1.  
 (c) Receiving (see couplers)-



36. Voltmeters - G5, J3, R20, S8, W3, W5.
37. Wavemeters - A15, C6, C7, D4, D7, F3, G8, W14.
38. Wire -
- (a) Antenna - A9, B5, C14, R21, R22.
  - (b) Ground - A9, B5, R21, R22.
  - (c) High-frequency cable - B5, D12.
  - (d) Magnet - A9, B5, D12, R21, R22.

## Part II.-- Complete Radio Receiving Sets

1. Direct coupled receiving sets with crystal detector - A15, P7, B15, B16, B17, C6, D4, D11, F1, G5, G12, G13, H2, M3, M4, M13, N1, N9, P8, R2, T3, T7, W3, W10, W14.
2. Direct coupled receiving sets with an electron tube detector - D4, D8, W11.
3. Direct coupled receiving sets with an electron tube detector with one or more stages of amplification - C5, D8, L7.
4. Inductively coupled receiving sets (tuner) without detector - A7, A15, B7, B16, D4, D11, G5, N10, N17, P8, T3, W7, W11, W14.
5. Inductively coupled receiving sets with crystal detector - B16, K9, M6, N10, N17, P8, R2, R3, W11, W14.
6. Inductively coupled receiving sets with electron-tube detector. - A7, A15, A19, B7, C5, D4, D11, G5, H2, N10, N17, P8, R2, R3, S19, T3, W3, W11, W14.
7. Regenerative receiving sets (tuner) without detector - A15, A19, B7, C5, C6, C7, C10, C13, D4, D11, E4, G5, G12, H2, J6, K2, K4, K9, M6, N10, P5, P8, R2, R10, S19, T1, T3, T7, W3, W10, W14.
8. Regenerative receiving sets with electron-tube detector - A15, B7, C5, C6, C7, C10, C19, D4, D11, G5, G12, H2, J6, K4, N10, N17, P8, R2, S3, S19, T1, T3, T7, W3, W14.
9. Regenerative receiving sets with electron-tube detector and one or more stages of amplification.- A15, B7, C3, C5, C6, C7, C19, D4, G5, G12, H2, K2, K9, N17, P8, R2, W14.
10. Receiving sets, unit type - A15, B7, D4, G5, H1, K2, M13, P5, P8, R3, T3, W14.







