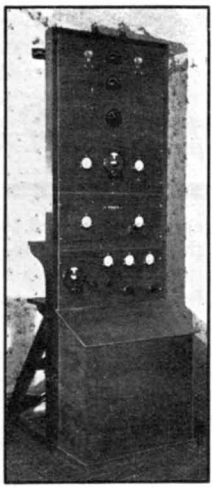

PANEL VIEW OF THE TRANSMITTER'S R.F. SECTION IN ITS CONVENIENT "CONSOLE-TYPE" RACK

Note the adequate metering.

various elements proper. One may dispense with the suppressor-grid resistor, however, and connect the suppressor direct to negative h.v. with good results.

In order to obtain controlled-carrier operation, the modulator and final amplifier plate feed circuits are placed in series. The plate resistance of the Class-B tubes is varied according to the audio level impressed upon their grids; and, as the audio signal varies, the varying plate resistance of the modulator tubes thus allows more or less d.c. current to pass through to the Class-

(*Continued on page 106*)

Picking Out the Receiving Tubes

"Preferred Types" in Tabular Form

WITH the passing of the moratorium on new receiving tube types, the manufacturers have got back into the swing of the thing and are bringing them out at a pretty fair rate. Gradually, however, order is coming out of what looked like chaos; logical grouping is pretty well in sight. In making up the additions and revisions for the tube tables in the next *Handbook*, we found it possible to prepare a table of what might be called "preferred types" of receiving tubes; the idea being that these types are practically the only ones that need be given consideration in planning a new receiver.

This table is presented herewith. The popular tube designs are listed in the left-hand column; everything is included except the electron-ray tubes, which are mere accessories rather than essential parts of a receiver, and a few hybrids such as the triode-pentode 6F7, which was made only in one series. In the power amplifiers, triodes and pentodes are listed according to how they are constructed rather than used; it is customary, for

(*Continued on page 110*)

PREFERRED RECEIVING TUBE TYPES BY FUNCTIONS

Descriptions	Metal Octal	Glass 6.3 V. Octal	Glass 6.3 V. Old	Glass 2.5 V. Old	Glass 2.0 V. Octal	Glass 2.0 V. Old
General Purpose Triode	6C5	6C5G 6J5G	76	56	1H4G	30
High-μ Triode	6F5	6F5G 6K5G	...	....	....	....
R.F. Amplifier, sharp cutoff	6J7	6J7G	6C6	57	1E5G	1B4
R.F. Amplifier variable-μ	6K7	6K7G	6D6	58	1D5G	1A4
Twin Diode	6H6	6H6G	....	....	....	....
Duplex-Diode Pentode	6B8	6B8G	6B7	2B7	1F7G	1F6
Duplex-Diode G.P. Triode	6R7	6R7G	85	55	1H6G	1B5
Duplex-Diode High-μ Triode	6Q7	6Q7G 6B6G	75	2A6	....	....
Pentagrid Converter	6A8	6A8G 6D8G	6A7	2A7	1D7G 1C7G	1A6 1C6
Pentagrid Mixer-Amp.	6L7	6L7G	....	....	....	....
Pentode Power Amp.	6F6 6L6	6F6G 6L6G	42 (41)	2A5	1F5G 1E7G	1F4 33
Triode Power Amp.	....	6B4G	6A3	45 2A3	....	31
Twin Triode Power Amp.	6N7	6N7G	6A6	53	1J6G	19
Direct-Coupled Power Amp.	6N6MG	6N6G	6B5	....	....	....

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BUD RADIO, INC.

1937 E. 55th STREET CLEVELAND, OHIO

Class-B "Squirt" Modulation

(*Continued from page 106*)

in the January 1935 issue of *QST*, page 9. However, two reasons predominate. First you can reduce power by talking lower into the mike, thus preventing unnecessary QRM; and the Light Company will furnish additional evidence in the form of a decreased light bill, because quite a saving of power is effected by the use of this system.

The writer will be glad to answer any inquiries by mail if return postage is included.

I. A. R. U. News

(*Continued from page 61*)

Madeira: *See* Portugal.
Malaya: J. MacIntosh, c/o Posts and Telegraphs Dept., Penang, Straights Settlements.
Mexico: L.M.R.E., Apartado Postal 907, Mexico D.F.
Morocco: A.A.E.M., BP 50, Casablanca.
Netherlands: N.V.I.R., Post Box 400, Rotterdam.
Netherlands East Indies: N.I.V.I.R.A., M. M. van Heusden, Jr., Burg. Coopsweg 28, Bandoeng.
Newfoundland: Newfoundland Amateur Radio Association, P. O. Box 650, St. John's.
New Zealand: N.Z.A.R.T., P. O. Box 517, Dunnedin.
Norway: N.R.R.L., P. O. Box 2253, Oslo.
Palestine: *See* Egypt.
Peru: Radio Club Peruano, Apartado 538, Lima.
Philippine Islands: George L. Rickard, P. O. Box 849, Manila.
Poland: P.Z.K., Bielowskiego 6, Lwow.
Puerto Rico: Francis M. McCown, Family Court No. 7, Santurce.
Portugal: R.E.P., Rua Primerio de Dezembro 33-3, Lisbon.
Rumania: Victor Cantuniari, YR5VC, Str. Matei Rasarab, 3 bis, Bucaresti IV.
Salvador: J. Frederico Mejia, 7a Calle Poniente 76, San Salvador City.
South Africa: S.A.R.R.R.L., P. O. Box 7028, Johannesburg.
Spain: U.R.E., Apartado 262, Madrid.
Sudan: Frank H. Pettitt, Catholic Club, Mustapha Barracks, Alexandria, Egypt.
Sweden: S.S.A, Stockholm 8.
Switzerland: U.S.K.A., Neu Allschwil near Basle.
Tunis: *See* France.
Uruguay: U.S.W.C.G., Box 37, Montevideo.
U.S.S.R.: C.S.K.W. QSL Bureau, 1 Samotechny per., 17, Moscow

Picking Out the Receiving Tubes

(*Continued from page 53*)

instance, to use many of the pentode typess a triodes in high-output Class-AB amplifiers, the change being made by switching the grid connections. The 6L6 is called a pentode in this table because of its characteristics.

Going across the table from left to right, it can be seen that the tubes now fall into six divisions. The metal series constitutes one classification, then glass 6.3-volt tubes with either octal or old-type bases, 2.5-volt tubes with old bases only, and 2.0-volt battery tubes with and without octal bases.

It is no news to amateurs that a.c. tubes these days are all being made with 6.3-volt filaments or heaters; except for replacement purposes the 2.5-volt tube has passed out of the picture completely. The trend to octal bases is equally marked; the table shows that practically all the needed types can now be obtained in glass with

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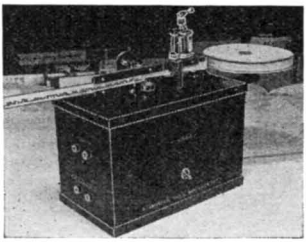

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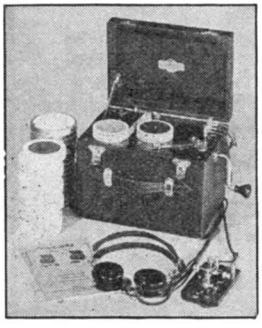

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octal bases, both in 6.3- and 2.0-volt filaments. Glass tubes with octal bases all have the suffix "G" tacked on the type number; in the 6.3-volt series a "G" number corresponding with a number of the metal series indicates that the "G" tube has the same characteristics as the metal tube. A few "G" tubes are actually independent types, not being exact duplicates of existing tubes in either metal or glass with old bases. We do not attempt to give the characteristics here; complete information is in the new *Handbook*, while most of the tubes have already been described in past issues of *QST*.

One thing this table shows is that octal bases now can be used throughout the receiver, whether designed for metal or glass tubes, a.c. or battery operation. In fact, it is now possible to adapt a battery set to a.c. and vice versa simply by changing a few—very few, at that—socket connections and substituting the appropriate tubes. It's not a bad idea, therefore, to ignore the tubes with old bases in planning a new layout; the needed ones already are available with octal bases.

—*G. G.*

Hints and Kinks

(*Continued from page 57*)

by the use of several folds or layers of cotton cloth, and fill up with alcohol. Methyl hydrate also works well, but *don't* use gasoline! You'll be surprised at the number of jobs this lamp fills where the usual little soldering iron is out."

Calls Heard

(*Continued from page 58*)

(3.9-mc. 'phones)

w1bes w1fr w1fce w1adm w1qv w1li w1zk w1dvr w2eve w2kr w2hyp w8ay w3dq w3axr w3gy ve1bo ve1ei co8yb

James Warding, Lara, Victoria, Australia

(14-mc. 'phones)

w1zd w1gj w1cnd w1ebt w1cit w1br w1ifd w1zoj w1gr w1uh w2bsd w2elx w2ebw w2bw w2bf w2uoy w2ckt w2bh (Portable) w2csy w2eh w2clo w2eoy w2eug w2aru w2eda w2aio w2hjs w2hfs w3eoz w3ppo w3apo w3qb w3bsh w3bvx w3asy w3boh w3abn w3oxo w3bxc w3exp w3erk w3me w3zx w3ahs w4cpg w4ddd w4cw w4up w4dbc w4dqb w4dla w4oc w4bqb w4ah w4axp w4glk w4dza w5cqi w5akf w5atb w5ebp w5act w5dq w5df w5aki w5zs w5ahk w6hoe w6kso w6abf w6cnc w6cqg w6bda w6izu w6jyh w6day w6sj w6anu w7qc w7ao w7doz w7aof w8dmu w8ct w8jk w8ahc w8pqq w8dld w8zc w8htx w9ara w9jnv w9ipx w9hrb w9klk w9bj w9ruk w9rmx w9jng ny2ae ve5ot ve1bq

VK3CZ, A. Ingham Berry, Kembla St., Hawthorne E.2, Melbourne, Australia

(28-mc. band—April and May)

d4arr fb8ab fb8ag g6dh hj3ajh j2ce j2is j2lu j3cg j3dc j3fj k4kd ny2ae ve5bi w2ayj w2tp w3air w4bbp w5ql w6ac w6bbq w6bjb w6bpd w6epz w6grx w6jn w6kb w6qg w6rh w7avv w9aeh xe1ay ze1jj zl1ba zl1da zl1dv zl1gx zl1kw zl2bg zl2bp zl3ab zl3dj zl3ja zl4fw zs1h zt6k zt6y

W8KAY, Akron, Ohio

(14-mc. 'phones)

vp3bg vp6yb vp9r vk2iq vk2mh vk2ap vk2fy vk3ho vk4jx py2ck ce1ar ce1bc oa4aa oa4ak oa4r lu6ap on4vk yv5aa g6xr g5ml g5ni

W. N. Haugh, 34 Charlcote Place, Baltimore, Md.

ct1by ct1gu ea4am ea4ao g2nh g5by g5ml g5ni g6xr hc1fg hh5pa h1zk hi7g hp1a hp1f k4sa k6baz k6kkp lu5cp lu6ap