### A.R.R.L. 28-mc. Contest To Be Repeated

Reports and entries on the 1934-1935 Ten-Meter Contest were received up to October 15th, and the date of writing this announcement is too early for us to give the result of the 28-me, operating and development competition jointly run by A.R.R.L. and R.S.G.B. over the past year. The announcement of which competitor receives the bronze medallion award will be made shortly.

28-mo, interest continues high and new results are being reported right along, as chronicled elsewhere in this QST. It gives us pleasure to announce that the League will sponsor another 28-mc. Contest for the 1936 season, and again, a year hence, make a second 28-MC. ACHIEVE-MENT AWARD to the operator or experimenter who has accomplished the most in work in this territory through the intervening months. Here are the rules for the competition for the coming year:

1. The Contest is open to all licensed radio amateurs.

2. The Contest will include work reported as taking place between 0001 GT January 1, 1936, and 2400 GT December 31, 1936.

3. Licensed power must not be exceeded.

4. Contacts may be established at any hour and on any day during the contest period.

5. One point will be scored for each completed 100 miles of contact, with a specific station (e.g. a contact with a station 99 miles away scores no points, contact with a station 65S miles away scores 6 points). All distances will be measured by a Great Circle line between stations.

6. In computing his final score a competitor may claim points for each different station worked once during each calendar week.

7. Proof of contact in writing may be required by the contest committee.

S. An A.R.R.L. Award Committee shall consider the file of reports and data submitted by competitors to the A.R.R.L. Its decision will be based on: (1) The number of weekly reports to A.R.R.L. on 23-mc. work, 25%. (2) Equipment description and development work on same, 25%. (3) Number of points in accordance with Rule 5, 50%. Examination of all reports with ratings weighted on these factors will determine the 28-MC. ACHIEVEMENT AWARD. Entries (from W/VE) must all be received at A.R.R.L. on or before January 15, 1937, to be considered for the A.R.R.L. Award.

A bronze charm will be presented by the A.R.R.L. engraved "FOR 2S-MC. ACHTEVEMENT, 1936," and with the call of the winner. One point will be scored for each completed 100 miles of contact. Decision between W/VE competitors will be based on



W/VE competitors will be based on weighted credits. (1) The number of weekly reports to A.R.R.L. on 28-me. work, 25%. (2) Description of equipment, and development work reported on same, 25%. (3) The number of points scored (monthly contacts with the same stations will be permitted to count), 50%. W/VE entries must be received at A.R.R.L. on or before January 15, 1937. Report your results each week to A.R.R.L., and submit scores and log at the end of the contest if you

wish these to count for all awards. Starting January 1, 1936, this International 28-mc. Con-

test will be in progress for one year, concluding at midnight December 31, 1936. This is open to all W/VE hams. The A.R.R.L. will award a bronze medallion to the highest scoring United States or Canadian operator-experimenter.

#### Brief

Due to reconstruction of the Post Office Building, Winston-Salem, N. C., license examinations will be held in that city one day only during November. Exams will be conducted on November 2nd in the City High School Building. Applicants for commercial and more than one class of license must appear at 9:00 a.m.

## Hints on Improving Keying

### By T. R. McElroy\*

G REETINGS, my friends, and I hope you'll all "stay with me." That's an old telegraphers' expression the significance of which I'd like to tell you some time.

As I was saying, I hope you'll bear with me for the next ten or fifteen minutes while I try to tell you in writing what I've told so many hundreds of hams in person during my very informal chats at hanfests throughout the northeast during the past year or so.

Y'know, it's a whole lot easier talking to a gang of guys than it is to write. Talking with hams I find plenty of room for elaboration and clarification in the questions thrown at me. Talking through the medium of the typewriter and printed page, I have to stop and scratch plenty to try and remember to tell you all that I want to and all that I think will help you in improving yourselves as operators.

Anyhow, here goes. Please read it carefully. I'm trying to give you in a few minutes reading the benefit of all that I've learned in over twenty years as a telegrapher and radio operator. It won't do any good to glance through it and figure "pretty good dope, eh. Joe." and then promptly go back to sloppy sending and operating generally.

I tell you that after twenty odd years as an operator I still find more enjoyment in chewing the fat with some other operator, over the air or landline, in code, than in conversing with some beautiful blonde over a few whiskies. And that's saying something.

To operate correctly is about the greatest thrill there is in the world. And it is so easy to become a really good operator, that it's heartbreaking to find so few of them. Let's get to work on this. All you hams can become as good or better than commercial operators with a little practice. And furthermore it won't take more than a couple of months. No matter how long you've been trying. You follow suggestions and do it right, and you'll be good. I mean good!

Now then, if you have a straight key, take it off the table right now. Put it on a block of lead or iron, or even wood, so that the button is about an inch and three quarters to two inches above the table. That's where it belongs! (So you'll have no cramp in your wrist when you send.) And then place it on the table in front of you at about the spot you'd have a letter if you were to sign it. So that key lever runs parallel with your arm, with your elbow just off the table.

Now run off dots. Not jerkily. Just smooth, rhythmically. Do it so that you hit about six or seven dots per second. And then stick a dash in once in a while and the first thing you know you're making beautifully perfect and musical V's. You should all know how perfect V's sound. Heaven knows that's about all you can hear on some of the frequencies that the commercials chisel away from you on the pretext that they've got to have them for commercial expansion, etc., to make V's by the hour!

Now from that point onward there isn't much to say. Simply take a newspaper or a book and sit down and send to yourself for about fifteen minutes each day. And I say emphatically that if you aren't an *excellent* sender within about two months, I'll donate a Mac-Key as a forfeit to any radio station we have agreed upon.

Now then for the "bugs." No operator anywhere will ever know the real thrill, the real joy in operating until he can sit down and really enjoy listening to himself send on a bug. It gives you all of the joy of telegraphing and removes all of the work from it.

There have been so many improperly designed pieces of junk sold to the hams as "bugs" in the past few years, that "bugs" have suffered in bad repute generally. No operator, no matter how skilled, whether telegraph or radio operator, can possibly send anything correctly on any of these monstrosities. So the first step in attempting to improve bug sending is to get rid of any instrument a ham may have which is improperly designed and which, consequently precludes any possibility of sending correctly.

There are, however, three "bugs" manufactured with

<sup>\*</sup>Holder of world championship code operating records for 11 years, 23 Hayside Street, Uphams Corner P. O., Boston, Mass, See account of regaining the World's Championship on page 24.

which it is possible to become a good bug sender. It would not be politic for me to attempt to mention actual names, but most intelligent hams will know what constitutes a correctly designed bug.

Now then, take your bug and make these changes. Arrange it so that the paddles are about two and one half inches above the table, where they belong, so that your wrist is not cramped when you send. On the adjustment: the dot lever should come to a backstop so that the vibrating rod is just resting against the vibration dampener strongly enough so it does not chatter when you make a dash. The lever should be free to swing easily without binding and yet with no up and down play in it. The dots should be adjusted so that there is about—well, anywhere from eleven to fourteen dots per second. Adjust the dot contact so that after about those eleven dots the contacts stay closed. This makes real heavy dots, the kind you need for radio work.

Then place the bug on the table in the position I described for a hand key, with the lever running parallel with your arm. The bug is directly in front of you, as a sheet of paper you were to sign, your elbow is just off the table, your hand practically vertical, your wrist off the table. Send with a full free arm swing.

To learn to send with a bug, first take your straight key and shove it up on its side. Now send with it. You should make dashes on your bug in *exactly that same manner*. You should be able to slap out dozens of dashes without stumbling once. And it is easy! Honestly! Try it my way and see if it isn't.

That is about enough for one code meal. Let us plan on another soon. But remember! The publishers of QST won't know whether you want more on this subject unless you tell them! And I won't know whether it is worth the effort to sit here at this typewriter unless you tell mel So let's know what you want. Also I shall be happy to answer any questions. And now, 73 for another month or so.—Mac.

### Silent Keys

It is with deep regret that we record the passing of these amateurs:

- Charles B. Bradford, W6LFH, San Jose, Calif.
- Clair Foster, W6HM, Carmel, Calif.
- Robert L. Green, W8GGH, Cleveland Heights, Ohio
- Paul E. McGrew, W8IUH, Columbus, Ohio
- Isabelle W. Moody, W7DHF, Portland, Ore.
- Fred R. Kamp, W9HHK, St. Louis, Mo.

### Briefs

When the air-pilot wife of the Governor of Northern Rhodesia crashed in a desolate area ravaged by sleeping sickness, it was a radio amateur who flashed the first word of her safety—ZEIJC!

#### Don't Jump at Conclusions

Who has not, vacationing, felt a pleasurable sense of elation at a glimpse of the droopiest of zepp feeders? Who again does not remember exclaiming, as he viewed even the sorriest of poles bending obediently to a taut nr. 14, "Ah, there's a ham." Of the fruit of such emotions was born an incident in the life of a certain eager, but misguided ham, who we will call W1XXX.

The place was New Hampshire; the scene a very dusty detour around a state highway under construction. Enveloped in a thin cloud of dust a car suddenly thrust itself into view around a turn. Affixed to its side was a long pole of such plausible dimension and appearance as to preclude any altercation about 56 mc. As the car drew near, W1XXX beamed with the unalloyed interest of a true brother. He leaned out the window of his trusty steed, consumed generous portions of the road, and in raucous tones bellowed, "Dah di dah dit



THE NEAT SHACK OF W4PL, O.R.S., SHEPHERD TENN.

#### Miles-Per-Watt Records

W5CPT reports a miles-per-watt record, which may be an all-time high. On April 14th he worked W9GGB, Danville, Ky., about 912.2 miles, reducing power to 4 volts at 2 ms., or .008 watts. This figures about 114,000 miles per watt! W9GGB reported the signals RST 220r, frequency 14 mc. Earlier records made by W5CPT included a 10,365 m/w QSO with W9GGB, a 30,000 m/w contact with W9FAV, both on 14 mc., and an 8000 m/w QSO with W5AMK on 7 mc. This latter is W5CPT's best 7-mc. record.

A low-power test at VK3PG with W6CUH on the receiving end resulted in an 80,000 miles-per-watt record. VK3PG was R7 at 4 watts, R3 at .54 watts, and R1 at .09 watts (45 volts, 2 ma). This was on 14 mc.

#### Flash! 28-Mc. Boiling

During the week of October 6th-11th (date of writing) the ten-meter band has gone completely crazy. Europeans are breaking through at 7:30 a.m. and are still in at 1 p.m. W1DF worked 3 Europeans on the morning of the 10th and 5 on the 11th. W3FAR worked 4 Africans on the a.m. of the 11th and only needs Asia for a 'phone WAC! W5AFX reports daily QSO's with many VK's at 6 in the evening as well as LU1EP and ZS1H. The only continent needed at AFX for WAC is Asia. X1AY and ZS1H have heard each other but have not contacted as yet-the moment they do X1AY will have 5 continents. Apparently there are many stations who have worked 5 continents and the 6th has been heard. It's only a matter of hours before someone makes that WACand the W stations still have a good chance-contrary to the impression given on page 16. Signals from Europe and Africa often come through at ear-splitting strength-unbelievable signals. Get down there and get your share of the thrills. Those active there these days are making DX history.

# On 56 mc.

W3AWU was tuning his 56-mc. super about 11:00 p.m. EDST, July 18th, and heard the harmonic from W3EMJ/3 on 28 mc. W3AWU called W3EMJ/3 and asked him to call CQ 55 mc., stating that he would rebroadcast him. QSO's were established with W3EET, W3EBA and W3CWR. The last mentioned was portable-mobile with 60 watts input, two receivers plus a 16-watt audio amplifier and a 110 a.c. motor generator. Operators of this set-up were W3CWR