tor had a bet with Mr. W. W. Burnham that at least twelve Europeans would be heard during the Tests. Mr. Burnham has radioed us via g5NN and u2AGB:

CONGRATULATIONS AM SENDING CLOCK AT ONCE I WANTED THE GREEN SUSPENDERS BADLY BUT BRITISH HAMS HOPE TO GIVE YOUR GANG SOCKS SOON.

Further Reports

The analysis of the Test reports is a formidable job; work is progressing on it but no further details are available at this writing. If any particularly interesting features become evident as the analysis proceeds, further reports will be made in *QST*. —*K.B.W.*

Cornering That Buzzing Interference

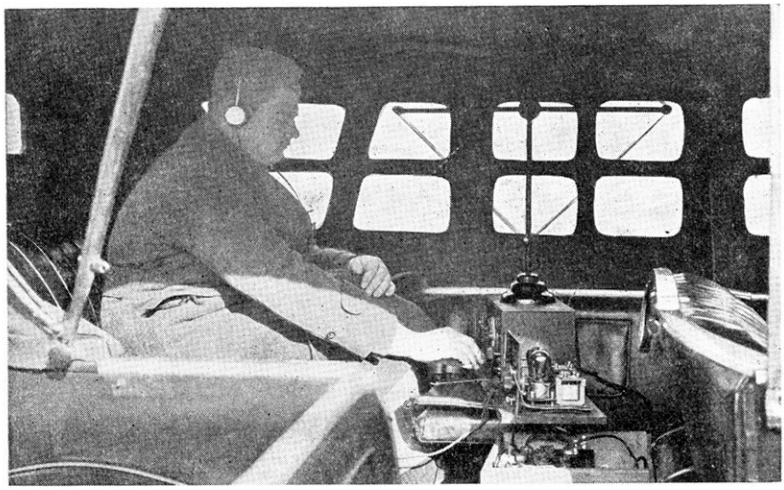
By Perry O. Briggs, 1BGF*

Radio amateurs often can be helpful in locating radio interference caused by power lines. This should be done in co-operation with the power company, not only because the work goes faster that way, but also because they will best know how to cure any line troubles that may be found.—Editor.

FELLOW hams. A new chapter in radio reception has been opened: the hunting down and eliminating of interference caused by, or at least blamed on street lighting equipment. The proverbial job of "finding a needle in a haystack" is a cinch compared to tracing and eliminating the microscopic causes of radio frequency oscillations emanating from street-light wiring.

Let me now relate what has happened in Hartford the past few weeks. Since last March the Hartford Electric Light Company and local amateurs owning transmitting sets have been goaded to exasperation by "hot" letters received from broadcast listeners in the southern part of the city giving them the "razz" and blaming them for starting and maintaining a teriffic "buzz" just the minute it became dark and when they wished to receive broadcast programs. In desperation the electric light company appealed to the radio club for assistance. A request for data on this bothersome "buzz" was published in the local papers by Mr. J. F. Furey, now President of the Radio Club of Hartford and Chairman of the Club's Interference Committee. The request was not met with any great enthusiasm; neither amateurs nor others responded at all well. However, several amateurs, especially Messrs. Furey, Schnell and Warner, tried by means of loops and radio frequency amplifiers to get a bearing on the "buzz" demon, but without avail for it was equally loud at all points. The task was abandoned for several days until the writer devised a systematic method of procedure.

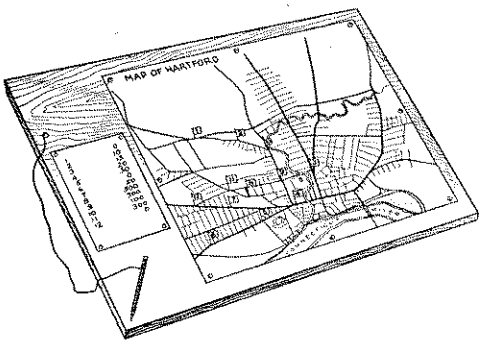
A map of the city of Hartford was tacked on a board and twenty-five pins with numbered paper flags glued to them were stuck in the map at various points



The Set That Did The Work

*Interference Committee, Radio Club of Hartford.

in the southern section of the city. On this board also was tacked a cardboard table listing the flags in numerical order. A receiving set was then installed in the writer's car. The set is as simple as can be imagined, being the famous Hassel tuner (described in December, 1923, *QST*)



with a two-foot loop of eight turns in series with the secondary. Ordinary home-made two-step amplifier amplifies the "buzz." For the detector a UV-201-A is used with excellent results. The set is mounted on rubber sponges to lessen the vibration. While riding along at thirty-five miles an hour the writer has distinctly heard second, third, and eighth district stations.

Coming back to locating the "buzz." Stops were made at the various locations of the map pins and by using an audibility meter the respective audibilities were noted beside the respective numbers on the card board chart. After taking the readings and getting back to more comfortable quarters in the station of 1BGF, a curve was plotted, which was found to have a decided peak in the Washington Street district. At last it seemed that we had a clue. We lost no time in hiking back to Washington St. Running slowly down the street it was noticed that as we came into the electrostatic field of each street light the noise of the "buzz" increased steadily. It reached its peak when we came to the intersection of five streets: Washington, School, New Britain Ave., Webster and Barnard Streets.

Feeling confident that we were close on the track of the "buzz" we hastened to the home of a confirmed broadcast listener, Mr. C. T. Maloney, inviting him to be in at the "killing." With two sets of head-fones we both listened as we drove down Washington Street and both agreed that the "buzz" was at its peak at the intersection of the streets named. By mere accident the driver of the car turned into School Street—WHAM!! the "buzz" increased a hundred-fold, and as we advanced down the street it kept increasing until we reached the second light pole where the noise in the phones was unbearable and at its peak. Being somewhat skeptical that we had located the interference we cruised down the other streets in the vicinity but found that the peak of intensity was in School Street. Mr. Maloney got out of the car and shook the light pole. The "buzz" faltered, stuttered, stopped, then came back with renewed energy. This was indeed interesting since the electric light bulb wiggled quite precariously in its socket and threatened to fall out. Rushing to the nearest telephone pay station, Mr. Maloney got into communication with a friend of his in the employ of the electric light company, who came down immediately to the location of the trouble, and after an investigation enthusiastically agreed with us that we had located the buzz in School Street.

A lineman was called and the offending bulb was plucked from its socket, but the noise continued. We were all dumbfounded but finally thinking that the street lamp bracket might have something to do with the buzz, it was reported for change. The following night we went the rounds again, being joined by several officials of the electric light company, and as before the buzz was still in operation and led us back to School street. There being only three lights on School Street the circuit was bridged by a loop of wire—but still the noise. There was only one thing to do now and it was done—the School street circuit was cut off entirely. *The noise stopped.*

The following day the Hartford Electric Light Company went to the expense and trouble of tearing out the School Street lighting circuit and installed new wire, insulators, goosenecks, and bulbs, and in the evening when the lights were turned on the troublesome "buzz" was missing and has not been heard since. As to its cause we are all in the dark. The apparatus which was removed from School Street has been given a thorough laboratory test by the light company but no cause for the "buzz" was located. Altho it is generally agreed that it was caused by a spark discharge, the point of discharge has not been found.

We are on the track of another disturbance and we hope to locate the cause before calling on the electric light people to go to the expense of tearing down a lot of apparatus when perhaps the trouble is caused by some minor defect which could be readily remedied.

In most cases the electric lighting companies in other cities as well as in Hartford will heartily co-operate with interference locators and gladly eliminate all trouble of this nature brought to their notice.