

January 20, 1943

DIARY - GRS

RCA VISIT - PROJECT 48

RCA
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Rajchman now has a scale model (x4) of a complete section of the computron, and is able to make it operate in a demountable vacuum system. He has under construction a group of 9 adjacent sections (capable of multiplying up to 3 x 3) at the same scale, and hopes to have them working in the demountable within 2 weeks, at which time he would like to show them to HHH and anyone else who may be interested.

Snyder has a very ingenious idea in connection with manufacturing the computron, which is to build it up out of identical punchings of .003" metal. The punchings are separated by about .035" tabs bent down in the punching. About 100 such punchings will stack up and will form all the more complicated parts of the device. All that remains will be the cathode, a cylindrical grid, and some simple targets.

Personally, I am very favorably impressed by the ingenuity and thoroughness with which Rajchman and Snyder have studied and solved the numerous difficulties. They have built and tested about 115 forms of tube structure, have worked out the electron optics for each and have found what seems to me to be a very practical solution.

The device would have so many applications in computers of all kinds that I think someone should sponsor it. For myself, I am still of the opinion that the computron should be developed as a unit applicable to fire-control directors, at least as a stand-by in case higher precision and more rugged directors are needed a year from now.

Even though it does not appear that a field director should be built at this time, a highly accurate director could be made as a standard of comparison against which ordinary directors could be tested, thus saving practically all the computation which is such a load on the AAB.

Dr. Zworykin and Mr. Engstrom want to discuss with HHH, the N.D.R.C. attitude toward the project, and decide whether RCA should do anything on its own, and if so, what they should do.

I promised to try to make arrangements with HHH to visit RCA in about 2 weeks to get acquainted with the computron. ||

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