

Hands That See December 1947 Radio News Article

<http://www.rfcafe.com/references/radio-news/hands-see-december-1947-radio-news.htm>

Life for the blind has always been fraught with obstacles that we who can see will never be able to fully appreciate. Society has come a long way in accommodating the special needs of those with no or severely reduced eyesight. Recent news stories report of experiments with electronic implants that use implants set into the eye and couple somehow with the retina to send image information to the person's brain. While in no way close to being able to be called sight, it has at least allowed the guy or girl with training to detect and avoid obstacles based on changes in scenery shading. We are probably a century away from true bionic vision, incremental improvements will thankfully improve the lives of our thusly challenged brethren.

This article from a 1947 edition of *Radio News* reports on efforts made by the New York Institute for the Educations of the Blind to make amateur radio accessible to interested students. It is no small accomplishment to learn the material and apply electronics and communications principles with your eyesight, so I have a great admiration for those who master the science with a handicap. Can you imagine learning to solder by 'touch?" The American Amateur Radio League (ARRL) has a collection of resources for sight impaired enthusiasts. Incidentally, when visiting St. Augustine, FL, a few years ago, Melanie and I visited the Florida School for the Deaf and Blind where, amongst other notable Americans, musician Ray Charles was a student.

Hands That See: NY Institute for the Blind Prepares Students for Ham License

The students' first contact with radio is in the Science Room where the instructor is shown teaching them theory of electricity and magnetism. Standard textbooks are used and classroom notes are taken, in Braille, on the machines shown.



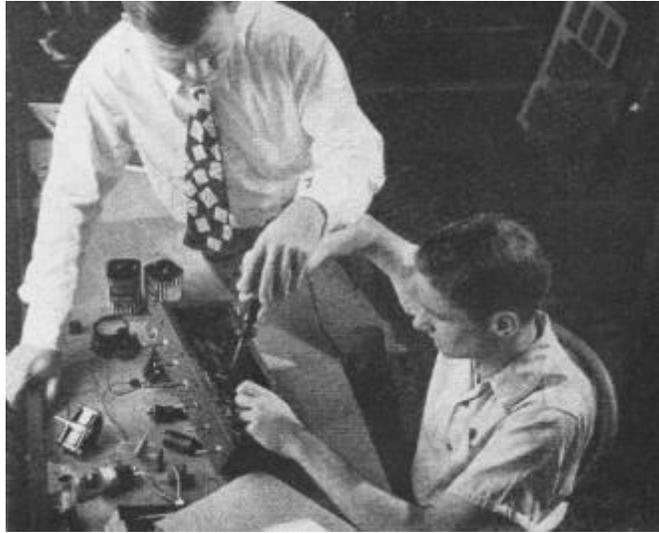
N. Y. Institute for the Blind prepares students for their ham license exams.

An hour's ride from downtown Manhattan, on picturesque Pelham Parkway, is the New York Institute for the Education of the Blind. Founded in 1831, the school has grown with great strides, so that today, through the efforts of a former student, it proudly boasts of a modern, topnotch radio section. Happily responsible for the rapid growth and establishment of this phase of the school's curriculum is that former student, who is now instructor of the radio department. The sequence of instruction, methods of demonstration, and a myriad of lesser problems had to be overcome, for Robert W. Gunderson had no pattern or example to follow except that of determination to succeed at his task.



Combination circuit and Braille demonstration board is the means by which the theory is applied to actual practice. This system is analogous to the well-known block diagram in radio.

Now after 15 years of activity, requiring many evenings and weekends of hard work, students go through the radio section of the Institute at the rate of 10 per year. Theory naturally comes first, but instructional technique must necessarily be different. The blind literally "see" with their ears and sensitive fingers, so textbook data and instruction manuals must be set in Braille, from whence it is translated orally by the teacher. Small machines, called Braille Writers, and faintly resembling a typewriter, are often used for classroom note work.



The next, and natural, step is to learn construction techniques. Here the instructor helps the student learn the proper handling of the soldering iron for wiring a radio chassis.

From theory classes, the student studies circuit applications with the demonstration boards designed and built by the instructor, and patterned after the well-known Dynamic Demonstration Board. Using these enlarged, Brailled, block diagrams, the student learns the component parts and their placement in circuits. Actual practice is soon begun, and students begin learning the proper handling of tools and the correct construction techniques. Starting first with simple breadboard receivers or amplifiers, they soon advance to building finished units that look and operate as well as any commercial product.



With theory and construction techniques mastered, the students are instructed in the operation of the school's high fidelity audio network. While the instructor supervises, Vito cleans the culling table and Al maintains the proper level on unit.



After winning his coveted ham license, this senior student goes on the air with a two-meter portable rig which he built.

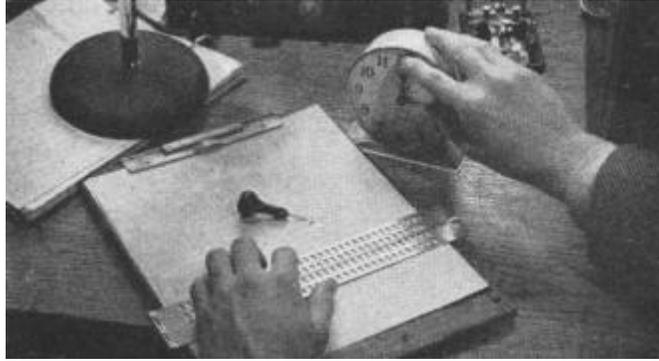
If the student hasn't been bitten by the "ham" bug from the beginning, he certainly has by now, so concurrent code instruction and practice is interspersed throughout

the course. By the time the boys (and an occasional girl) are well up on theory, they also possess a code proficiency high enough, or better, to meet license requirements, and are soon heading for the FCC offices.



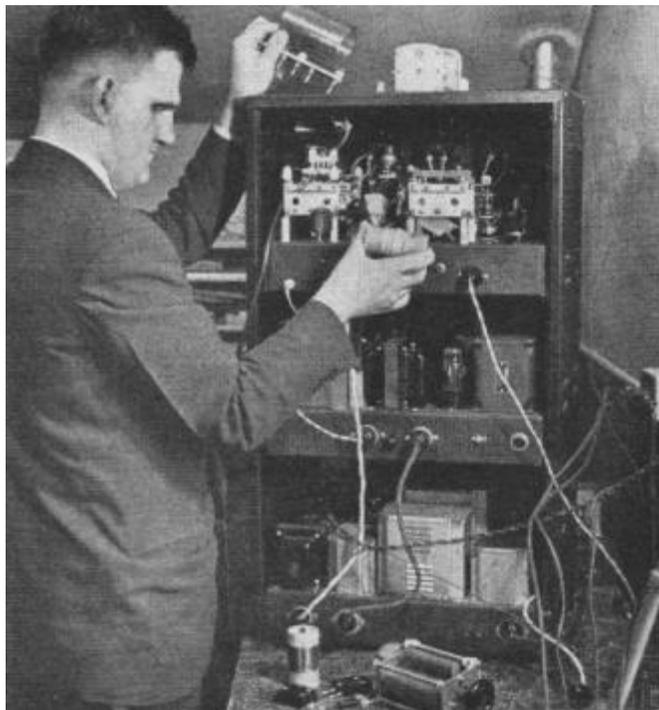
By now every student has been bitten by the urge to become a "ham." In the textbook translated to Braille, our student studies the frequency control of a transmitter by use of a crystal. Note the Braille frequency markings on the crystal.

Keynoting the entire course is the practical application of the basic radio instruction absorbed by the student. The school's high fidelity audio system which serves the auditorium and playgrounds is an outstanding example of this application. With this system, programs are recorded for future presentation to assemblies, recordings by the student choral group are made for study and analysis, and general sound coverage is given the school for regular or extra-curricular activities.



Keeping the station log is also done in Braille. The sheets are shellacked to retain the raised dots and then bound into a permanent form. Operator is shown checking time for entry.

Bob Gunderson's own call, W2JIO (Jump In the Ocean), is the basis for the "shack" in the school's administration building, where many of the boys are indoctrinated in the pounding of brass and talking one's self hoarse. The fellows are proud of their work at the school, especially Bob, for here, tomorrow's citizens are training today to become independent, self-sufficient members of an honorable profession and a happy fraternity.



A fine example of the excellent workmanship seen at the school is the instructor's pet transmitter. The rig was built entirely by Mr. Gunderson, including drilling of chassis and panels.

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