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QST Issue: Feb 2002
Title: Learning the Code
Author: John H. Dilks III, K2TQN

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OLD RADIO

Learning the Code

One of the most written about radio subjects is Learning the Code. The earliest magazines and books I own, from as early as 1910, have articles of instruction and many different methods to learn. Since the early days hams have spent many hours reading and practicing.

Code predates radio. Young prospective Telegraphers in the mid to late 1800s would get jobs delivering messages. They would sit quietly in the telegraph office between deliveries, copying the messages for practice. As soon as they could qualify, they could move up to the position of Telegrapher.

Learning usually meant practicing together with a friend or in a small group. Each would take turns sending and receiving using a hand key and buzzer or sounder. Radio schools started teaching code so students could get commercial licenses. Early on it was discovered that some sort of automatic means for generating code characters was needed.

Enter the Omnigraph

My Omnigraph was patented on October 25, 1904. It consists of a variable speed spring-wound clockworks motor driving a gear train, turning a horizontal wheel. The wheel is made up of several pre-coded aluminum platters—stacked one on top of the other. A small pin follows the wheel edge and operated a set of keying contacts. The contacts in turn key a sounding device for the student. These were used for many years.

Other Devices

Later paper tape machines were invented, like the Instructograph. These were cheaper than Omnigraphs and came with long paper tapes, which were run through a set of contacts. The early ones came with a spring-wound motor. Eventually they added electric motors. There were more expensive and elaborate devices used by the military for training. Many of them worked just like the Instructograph. Phonograph records were also used.
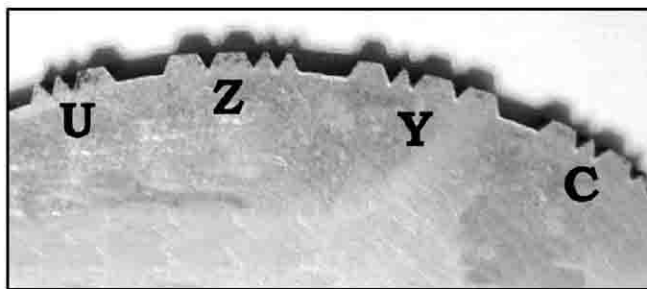
Today a prospective code student has many methods to learn, such as audio tape, CD-ROMs and computer programs. Take a look at some of the early code practice devices. I'll

The popular Telegraph Apparatus oscillator with built-in practice key.
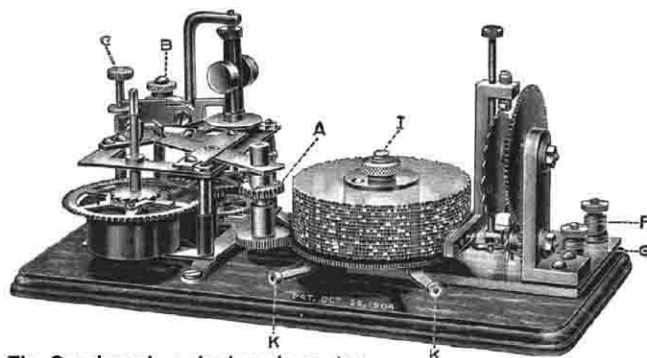
The Omnigraph, a clockworks motor and pre-made code wheels...

...and the Omnigraph wheel. Note the code letters in edge of the aluminum wheel.

The Instructograph with practice tape in place.

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This 1918 practice set was made for training operators during WW-I. It had a light and a buzzer and could be connected to others via external wiring and using a battery like that shown. Hams bought these from surplus companies after the war. Note the extension on the key to bring the knob down to regular height.

This early "Made in Japan" key is typical of those sold from the early 1950s through the late 1980s. Many hams owned one of these.
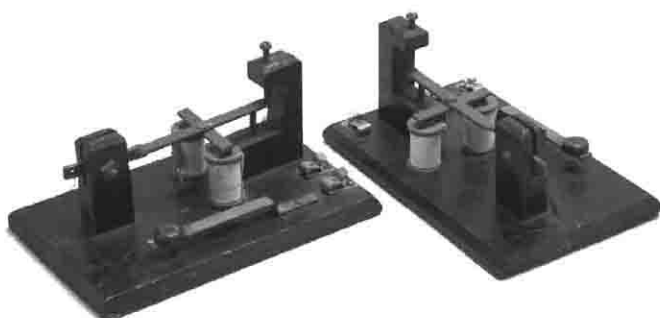
A homemade pair of telegraph practice keys and sounders.
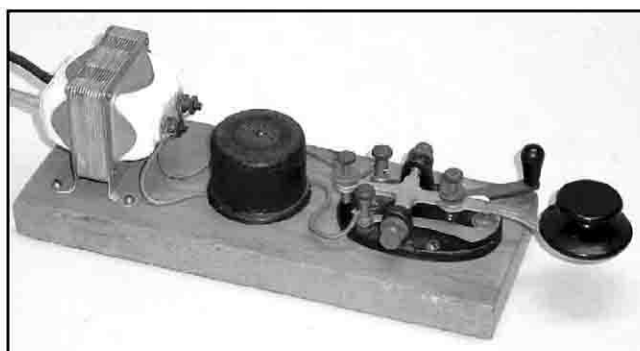
This late 1940s key is typical of those from the 1930s through the late 1970s. The doorbell transformer supplies voltage to the buzzer, which is keyed by the surplus WW-II key.

A popular 1950s code oscillator. Thousands of these were sold to hams.

keep it short this month so we can get in more photos. These photos should bring back some fond memories for the old-timers and enjoyment for the computer generation.

Please visit my Web page, **www.eht.com/oldradio/arrl/ index.html.**—*K2TQN*

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