Crosley to the Rescue
Affordabel Radio Facsimile

Powel Crosley, Jr., of Cincinnati, Ohio, was known as the Henry Ford of radio because he successfully reduced the cost of radio receivers from over $100 to $7 in 1921 with his crystal radio receiver set, the Harko. This was Crosley's first low-priced, mass-produced radio receiver, which became a notable success. Within a year, Crosley had become the largest producer of radio receivers in the nation. At the peak of production, 500 low-cost radio receivers were shipped daily from the manufacturing plant on Arlington Street in Cincinnati, Ohio.

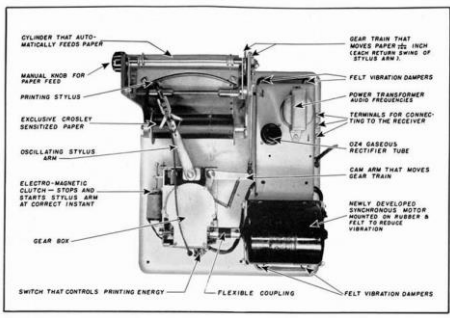
In 1921 Massachusetts Institute of Technology in Cambridge, MA sent a photograph by radio fax using the Cooley-Hainsworth system. Pictured above is the before (left) and after (right) picture.

RCA was the first company to adapt facsimile to radio and sent a transoceanic image of President Calvin Coolidge from New York to London on November 29, 1924, pictured right.

In the same year as the introduction of the Pup Radio receiver, station KPO in San Francisco, California, became the first radio broadcaster to transmit a photograph by radio facsimile when it sent a picture of cartoon character Andy Gump on August 22, 1925.

In 1926, RCA began a commercial service of transmitting transoceanic photos by shortwave radio for the newspaper industry and transmitting weather maps to ships at sea. RCA's patented "Photoradio", pictured right, a technology invented by RCA scientists Richard H. Ranger and Charles J. Young. It used a rotating drum and a photoelectric scanner to convert a document into a continuous tone that varied in pitch with changes in the image. The image was reproduced on the receiving end with another rotating drum having a stylus that pressed black carbon paper against white paper to reproduce the image.

In the early 1930s, radio was the newspaper's worst enemy. Radio competed for advertising dollars and offered a free news alternative to a cost-conscious public during the Great Depression (1929–39). As might be expected, newspapers aggressively opposed the idea of sending their publications by radio. Several legal challenges resulted, but, when the companies' realized newspapers by radio fax could be the future, they quickly adopted the technology. Newspaper companies became one of the largest customers and promoters of radio fax.



This diagram from an early Crosley brochure shows the inner workings of the Finch facsimile printer. A swinging arm moves back and forth in an arc, etching the image onto photosensitive paper.

By 1933, radio printing technology advanced with the introduction of the Finch System. William G. H. Finch was born in England in 1897 and, in 1906, moved to Cincinnati, where he studied electrical engineering and radio communications at the University of Cincinnati.

The first experimental radio facsimile tests of the Finch System took place in 1933 over station W10XDF, transmitting from the Teterboro Airport in New Jersey. By 1937, Finch had developed his technology into a practical radio printing system and began licensing radio stations for its use. Soon, there were 13 stations using the Finch System to broadcast text and graphics by radio facsimile, or fax.

So easy to use, even a child can operate it. A 1938 publicity photo shows a Finch home printer receiving a facsimile newspaper from WWJ in Detroit. (Detroit News Archives)

This was an expensive adventure. Besides meeting the cost for the transmission equipment, each station had to purchase 50 receivers at $125 each.

Not to be left behind, the Radio Corporation of America, or RCA, repackaged its expensive commercial fax system for sale to the public in 1937 by reducing the cost to $260.

The radio fax market never developed.

Crosley to the rescue! As before, Crosley saw a business opportunity and attempted to save the dying radio fax market. He obtained a Finch facsimile license and re-engineered the system for lower cost. Named the Reado, two units were on the market by July 25th, 1939, for a cost of $60 and $80.

Crosley passionately believed that the radio facsimile receiver was the future. In January 1939, he announced that his company had manufactured 500 sets and had set up a factory to turn out 1,000 per day.

Too little too late! Sales were disappointing. Even the best promoter in the business could not save the radio fax market. Crosley continued to broadcast radio fax news over WLW through the early years of World War II, but radio fax and the Reado quietly drifted into history.

Radio fax was a technology the public did not ask for and did not want.

Later, the military was successful with radio fax as a communication tool.

The VOA Bethany Station in West Chester, Ohio, at the end of the broadcast day, transmitted secret radio fax information to troops during WWII using shortwave radio.

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Banks, Michael. "Just the (Radio) Fax, Ma'am." Nuts and Volts.
This article explains the ways that radio stations delivered news in the 1930s.

Schneider, John. "The Newspaper of the Air: Early Experiments with Radio Facsimile." Radio Historian.

Schneider, John. "A Look Back at the Radio Newspaper of the Air." RadioWorld.
Radio facsimile technology never fully caught on; this article attempts to answer the question "What if it had?"

"The Reado Printer Converts Radio Waves into Text and Pictures on White Paper." Crosley Automobile Club.

Media Confidential

Radio Broadcast Magazine, May 1925, PP 18-34

One of the nation's most active facsimile leaders, W. G. H. Finch licensed over thirty broadcasters during 1939, as well as licensing foreign governments and commercial wire service companies. Predicting a big year ahead, Finch prepared his Passaic, New Jersey, plant for added production of facsimile transmitter units. Image courtesy the Radio Historian