

# Will Facsimile Take the Place of the Newspaper?

By JACK HARRIS

*It hardly seems likely . . . but certain it is that radio's newest brain-child will bear watching*

**M**ORE than meets the ear is going on in the radio industry these days.

Behind the programs that entertain you nightly is a cavalcade of men who have toiled untiringly to perfect the medium of radio—on both the sending and receiving end.

As a result, the radio reception of today is not to be compared with that of other days. For engineers, who toiled by midnight oil, have approached perfection.

But they have not stopped their endeavors.

At WSM, Nashville, 50,000 watt station, engineers stay on duty after the midnight sign-off hour, and when the entertainment features have ended they begin experimentation in a new field, *Facsimile*.

Facsimile, pronounced *Fac-sim-ilee*, is the latest field of radio re-

search, a development that adds a new dimension to the entire radio field.

For simply stated, Facsimile means the broadcasting of the printed word and pictures.

It means that pictures and stories can be sent without wires into a receiving set located in homes throughout the country. And it really means more to rural America than to any other section.

For when scientists and engineers have perfected the art, Facsimile will be the means of bringing news and information to persons otherwise cut off from such by reason of their location.

Facsimile is still in the experimental stages, and therefore, to a large degree, an unknown quantity.

What is known by most followers of radio and its trends is that Facsimile is a means of transmitting over the regular broadcasting channels not only sound, but also printed matter and pictures, including even half-tone reproductions.

An attachment on the regular radio set receives these pictures and words on a roll of paper two columns wide. The variety of what might be received in this manner in one's own living-room is still a matter to be determined by the experimenters, led by Nashville's 50,000-watt radio station, WSM.

The principle of the transmission machines installed at WSM does not vary greatly from that of wired photo, which is a well-established part of leading American newspapers.

Copy to be sent over the air is inserted in a scanning machine. Then light from a small electric bulb is focused as a tiny spot on the copy. By means of the photo-electric cell the light is converted into an electrical tone signal varying in loudness to correspond to black, white or halftones of the copy. The scanning machine takes the place of the microphone and is connected with regular broadcast equipment in much the same manner.



David Stone shows how Facsimile set will look on top of the regular receiving set. Now they are not for sale. But in time, after WSM and other leading stations of the country complete their pioneering experimentation, Facsimile may become a regular addition to the radio set—bringing news and pictures and features of the world in printed form right into the home.

Facsimile signals are transmitted over the air just as is regular sound broadcasting, using normal power and assigned broadcasting frequencies.

Thus WSM will transmit Facsimile reproductions on its regular clear channel frequency of 650 kilocycles and with its regular power of 50,000 watts.

At midnight, the powerful Nashville station will cease broadcasting for the ear and begin its broadcasting for the eye, through Facsimile. The present experimental permit allows transmission of Facsimile from midnight, Central Standard Time, to 6 o'clock in the morning.

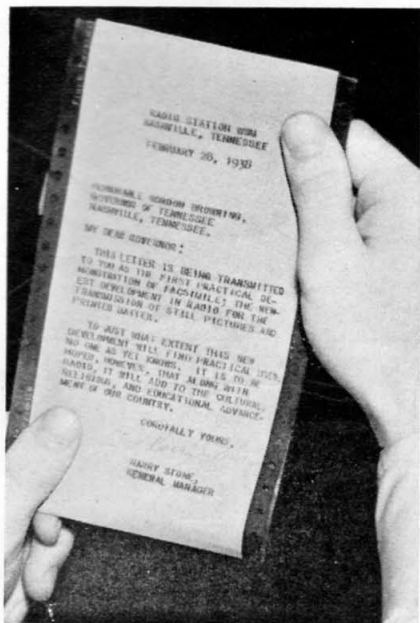
As copy is sent through the transmitting machines at the WSM studios, the receiving set attached to radios in American homes reproduces that copy instantly.

One might assume that the WSM transmitting hours of from midnight into early morning would prove prohibitive from the dial-twisters' point of view.

Such obstacles, however, have been overcome through the installation of an automatic time-clock.

At any hour, the receiving set can be tuned to WSM (650 kilocycles), the hour set for midnight, and then automatically at that hour the Facsimile

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This is the way the message looks as it comes out of the receiving set.

# Strictly Personal

With  
GEORGE HAY



(THE SOLEMN OLD JUDGE)

## Howdy Neighbors:

**F**OR the past six or eight years radio has employed the best talent in the world. Stars of the opera, theatre, lecture platform and editorial room have been called upon to broadcast. There is no longer any question about the fact that radio is one of the foremost and far-reaching mediums of expression on this little earth. In view of the fact that radio phone broadcasting is nearly twenty years old, a little more than eighteen to be exact, we'll divide it into halves for the sake of this little story.

The first nine or ten years were devoted largely to pioneering. It took a tremendous amount of wood-cutting and selling to build the big lumber mill that now stands. We remember the days when a broadcaster was considered a cross between a clown and a zebra. He was a sort of a fly in the ointment, or a bug on the arc-light. The public did not take radio seriously until along about 1927 or '28 when it decided there might be something to it.

When the '30's came in the industry began to employ regularly the foremost artists in America and elsewhere. Leading orchestras, singers, and opera stars preceded the top-ranking comedians. Then along came dear old Will Rogers, America's Number One humorist and comedian to really put it where it belonged in one sense of the word. His Sunday night chats were like a cup of cool water to a weary traveler. Along with Will came his old show pals, Eddie Cantor, Al Jolson, and Ed Wynn. Then Jack Pearl, better known as the Baron Munchausen, Joe Penner with his duck, Bob Burns and his bazooka, Edgar Bergen with his Charlie Mc-

Carthy, and for several years before and after, Jack Benny, one of the smoothest comedians in America. Of course there were others in the top-flight.

In our humble opinion there are two comedians on the air now who will bear watching. One is Robert Benchley, considered by many critics as America's Number One humorist, and the other is Fibber McGee.

Franklin P. Adams, better known as F. P. A., who has been for many years one of America's leading newspaper columnists, says Bob Benchley is the funniest man he ever saw. It seems that he hired Mr. Benchley when he was Sunday editor of one of the New York papers many years ago shortly after Bob graduated from Harvard. F. P. A.'s opinion is being shared by millions of Americans who have seen Benchley's movie shorts and listened to his air show on Sunday night. Then, too, Bob has written several books that are screamers. F. P. A. tells us that Mr. Benchley knocks into a cocked hat the old thoughts that humorists are sour off stage or away from the typewriter. He tells us that Benchley is a riot before breakfast and after dinner as well as in the middle of the afternoon. In spite of all of our American comedians, laughs are still at a premium, and a good one helps maintain one's equilibrium about as well as anything we can think of. May Mr. Benchley continue with his riotous humor for a long, long time to come.

We don't know whether Fibber McGee writes his own stuff, part of it, or whether it's written for him, but he's a grand little performer and we hope that Mollie will be back on the air with him soon. He portrays that quizzical, friendly, average American who does the work of the world. His humor is subtle and leaves a good taste between broadcasts. Fibber McGee knows what he's about and he seldom misses a lick.

Bing Crosby is doing a marvelous job, we believe, in humanizing our regard for opera and concert stars. There has been entirely too much of the "stuffed shirt" thought about them for years. We think that Bing is one of the very best masters of ceremonies in radio to say nothing of his ability to put over a popular song as nobody else can do it. His free and easy style is not hard to take, behind which he maintains a stability and dignity which keeps his show from going into the ditch.

Yes, it looks like radio is going right ahead, and we're mighty glad to be a drop in the bucket.

Now it's time for the tall pines to pine, the paw paws to pause, etc.

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receiving set will begin to reproduce whatever WSM sends through the new medium.

Upon arising the next morning, one has only to go to the receiving set and there find six hours of broadcast-transmission rolled out of the machine in two-column widths.

Harry Stone, general manager of WSM, explains that the undertaking is entirely experimental in nature.

"Facsimile is still an unknown quantity," Stone declared, "and WSM is merely pioneering in an endeavor to determine what its values and potentialities may be. We expect it to be of greatest values to rural areas in America and for that reason feel that a station such as WSM, with a clear channel and 50,000 watts power, is perhaps best suited to make these experiments. We enter the work with high hopes, but with no pre-conceived notions about what will and will not work in Facsimile."

Stone explained that WSM was footing the entire bill. In addition to the transmitting machine, WSM has purchased 50 receiving sets, which will be set up in remote areas, in lighthouses, schools in remote areas, and families ranging in distance from Nashville from 10 to 1,000 miles.

Chief Engineer Jack DeWitt of WSM is enthusiastic about the pioneering possibilities of Facsimile.

DeWitt and his staff are already at work on testing its possibilities and plan to answer some of the unsolved questions now surrounding the new endeavor.

WSM engineers hope to determine what effect static and adverse weather conditions may have on Facsimile, determine the difference between ground waves and sky waves (which may cause reproduction of two pictures instead of one on long-distance transmissions) and also determine the feasibility of long distance transmission of Facsimile.

To the dial-twister, Facsimile is still something of a question mark, but one surrounded by more interesting and intriguing possibilities than anything that has come along since the cat-whisker days of radio.

To the operators of Radio Station WSM in Nashville, Facsimile is all that and more:

It is a stimulating challenge that WSM has answered to continue its role of pioneer in the march of American broadcasting.