

# From Studios to Twin Towers WGAN Typifies Broadcasting at Its Best

In the dark of night WGAN's red tower lights, reaching 350 feet skyward, flicker their friendly greeting to Portland residents. Although the station is less than a year old these call letters have become symbolic of education, culture, entertainment and public service throughout the state of Maine. Owned and operated by the Portland Broadcasting System WGAN takes its place as one of the finest equipped 500 watt stations in the country. Being an affiliate of the Columbia Broadcasting System, the station carries many of that network's programs although two thirds of its schedule is composed of local presentations.

The Western Electric transmitter ground system consists of 19 miles of copper wire used in 120 350-foot radials extending from each tower. The wires are spaced eight inches apart in the center of the circle and 18 and one half feet at the outer edge. For protection against damage to cables all telephone and power lines to the transmitter house are run underground. A double electric power line to the station guards against the failure of any one unit.

Foundations of the radio towers are exceptionally strong. Each corner is capable of withstanding a downward pressure of 116,000 pounds or an upward pull of 51,000 pounds. The towers are of sufficient strength to withstand hurricane wind at a velocity of 115 miles per hour. Because of the directional antenna system, the first in the Pine Tree State, a maximum signal is sent into the most densely populated area of the state and into Northern Maine and suppressed towards Providence, Rhode Island and Columbus, Ohio.

WGAN studios were designed by consultants of Electrical Research Products and embody the most modern acoustical treatment known to radio science. Of special interest to visitors is the principle

of floating studios which is explained on all conducted tours. The main structure is suspended from three massive steel beams. To do away with outside noises and vibrations, each studio is a room built within a room, with two inches of space between inner and outer walls. This gives perfect insulation and soundproofing.

The walls of the studios are built in such a fashion as to defy an echo and control reverberation. The plaster surface of the walls are scientifically angled instead of straight so that no two walls are parallel. Acoustical panels are divided into strips and alternate places are treated with sound absorbing material. These conditions prevailing at WGAN give perfect sound control.

The studios are all air conditioned, with workers, artists, and spectators at the station enjoying a change of air every ten minutes. The lighting system was designed to be easy on the eyes. Although daylight is admitted in all offices indirect lighting is used; the visible source in studios, offices and lobby being squares of frosted glass set flush with the ceilings.

The colonial effect is achieved in the reception room and lobby of the station with knotty pine sheathing forming the wall finish and large pine beams lending a characteristic touch to the ceiling. A specially made rug of light moss green with the woven monogram WGAN in rust, carpets the floor. Window drapes are attractively accentuated with figured patterns on a tan background. The reception room houses three show-cases built within the walls where sponsors may exhibit products from time to time.

WGAN began regular broadcasting August 3, 1938. Since then, thousands of letters and telegrams sent in by listeners have acclaimed the station as functioning perfectly and as a definite progressive influence in the state.

WGAN's entire staff as they appeared on opening day when they greeted hundreds of guests. Front row, Alvin F. Wright, bookkeeper; Curtis B. Plummer, engineer; Roger W. Hodgkins, chief engineer; Florence E. Kenney, stenographer; Gwendolyn Graves, receptionist; Laurence H. Stubbs, assistant treasurer; Richard E. Bates, program director; Arthur K. Atherton, salesman; Lyman F. Brewer, engineer; back row, Stanley Letson, salesman; Kenneth B. Woodbury, engineer; Howard Stanley, continuity-publicity; Warren A. Hamilton, engineer; Lewis R. Collins, engineer; Sam Henderson, chief announcer; Russell Dorr, baritone and announcer; Carl deSuze, announcer; Guy P. Gannett, president; Harold Falconer, who has since left the organization; and Creighton E. Gatchell, manager.



# WGAN

Portland, Maine

Similar in design to those snug little Cape Cod cottages so typical of the New England scene this cosy building houses WGAN's new Western Electric transmitter shown at the bottom of panel. Studio A features latest acoustical developments with wavy walls and slanted ceiling. Below: C. B. Plummer and W. A. Hamilton, engineers, admire one of the two 251A tubes used in the transmitter. Lower left photograph shows Chief Engineer R. W. Hodgkins peering into the studio while L. R. Collins manipulates the 23B console.

