

DAILY NEWS REPORT

NATIONAL BROADCASTING COMPANY

RCA Building Radio City New York

August 10, 1938

NBC'S FAMOUS MELODIC CHIMES TO BE "BIG BEN" OF NEW YORK

The NBC chimes, most famous of musical trade marks, will begin sounding the hour tomorrow (Thursday, August 11) for the thousands of New Yorkers and out-of-town visitors who daily pass through Radio City and the adjacent plaza and walks of Rockefeller Center.

Synchronized with one of the large ornamental clocks overlooking the Sunken Plaza, the familiar chimes, which have identified the two networks of the National Broadcasting Company for more than a decade, will mark each hour between 8 a.m. and 1 a.m. for all in the vicinity of Radio City.

Only recently extended to uses outside radio, the chimes have already been adopted by three large American railroads. For several weeks travelers on the Baltimore and Ohio and Alton systems have been called to meals in the dining cars by the sound of the melodious chimes. This week they were adopted by the New York Central Railroad for the same purpose, and 150 sets of hand-operated chimes are now being placed in service on that road.

To make the chimes sound in the streets about Radio City, a system has been set up including a loudspeaker, three small clocks, and the large ornamental clock in the south facade of the International Building. The loudspeaker is installed behind the grille of the clock face, where two of the smaller clocks also are located.

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The first of these small clocks turns on the chime system at eight o'clock in the morning and shuts it off at one o'clock the following morning. The second, a subsidiary control, switches on the loudspeaker a few minutes before the hour and cuts it out immediately after the chimes have sounded.

The chimes themselves are located in NBC's main equipment room in Radio City, several hundred feet away. They are controlled by a third clock, one of those used in timing the operations of NBC's two nationwide networks. On the hour contacts are closed, a relay is tripped, and the electrical chimes are set in action. They are entirely automatic, electrically driven on the principle of the old fashioned music box. Each chime consists of eight separate metal reeds, plucked simultaneously by rows of pins mounted on a revolving drum. The composite of a fundamental with seven harmonics produces a full, bell-like tone. Two other sets of reeds sound at one-second intervals.

No microphone is used to transmit the chimes. Each of the metal reeds, and a strip of metal that parallels it, forms a small condenser. The vibrations of the reed vary the capacity of the condenser. These variations, electrical counterparts of sounds produced by the vibrating reeds, will operate the loudspeaker system behind the grille of the plaza clock just as they produce the NBC chime signal in millions of American homes every day.