

the

# Rainbow TOWER CARILLON

A CARILLON OF 55 BELLS  
AT THE RAINBOW BRIDGE  
CONNECTING NIAGARA  
FALLS, U.S.A., AND  
NIAGARA FALLS, CANADA

## 1968 RECITALS

Easter Sunday — April 14th.....	3:00 p.m. and 8:00 p.m.
Easter Monday — April 15th .....	3:00 p.m.
Decoration Day — May 30th .....	8:00 p.m.
June 1st and 2nd .....	3:00 p.m. and 8:00 p.m.
June 8th and 9th .....	3:00 p.m. and 8:00 p.m.
June 15th and 16th .....	3:00 p.m. and 8:00 p.m.
June 22nd through September 2nd.....	3:00 p.m. and 8:00 p.m.
(No Recitals on Thursday — except July 4th)	
Canadian Thanksgiving, Oct. 14th.....	3:00 p.m.
American Thanksgiving, Nov. 28th.....	3:00 p.m.

NIAGARA FALLS BRIDGE COMMISSION

George P. Urban, Jr. — General Manager

**T**HE RAINBOW CARILLON is a set of 55 tuned bells hung in the Tower at the Canadian end of the Rainbow Bridge at Niagara Falls. In musical range it is one of the largest in the world and the largest in the British Commonwealth of Nations. The bass bell is the fifth largest tuned bell in the world. The carillon covers a musical range of 4½ chromatic octaves omitting the lowest semitone. The Bourdon, the largest bell, weighs ten tons, and is over eight feet in diameter and 6½ feet high, giving the note E natural. The smallest bell weighs less than 9 pounds, is 5¾ inches in diameter and 5¼ inches high, giving the note B natural. The entire set of bells, without framework or playing mechanism, weighs 43 tons.

The bells were cast and tuned by John Taylor and Co. of Loughborough, England, a firm whose history goes back to the year 1360. Taylors were largely instrumental in rediscovering the art of bell tuning which had been lost for 250 years. The Taylor Foundry built the Bok Tower Carillon in Florida, and the carillon of the University of Michigan. The casting of the Rainbow Carillon was started in 1941, but was interrupted because of war conditions. Work was resumed in 1945, completed in February, 1947, and the inaugural recital was given on July 1st, 1948.

Although a bell sounds one note there are five distinct tones in every carillon bell, and they must all be in exact tune. Each of the component tones can be tuned by grinding metal from various levels inside the bell. The Strike Notes gives the pitch, the Hum Note is an octave below the Strike Note, the Tierce a minor third, the Quint a fifth and the Octave an octave above the Strike Note. It is this unusual combination of tones that gives the carillon its richness and beauty of sound.

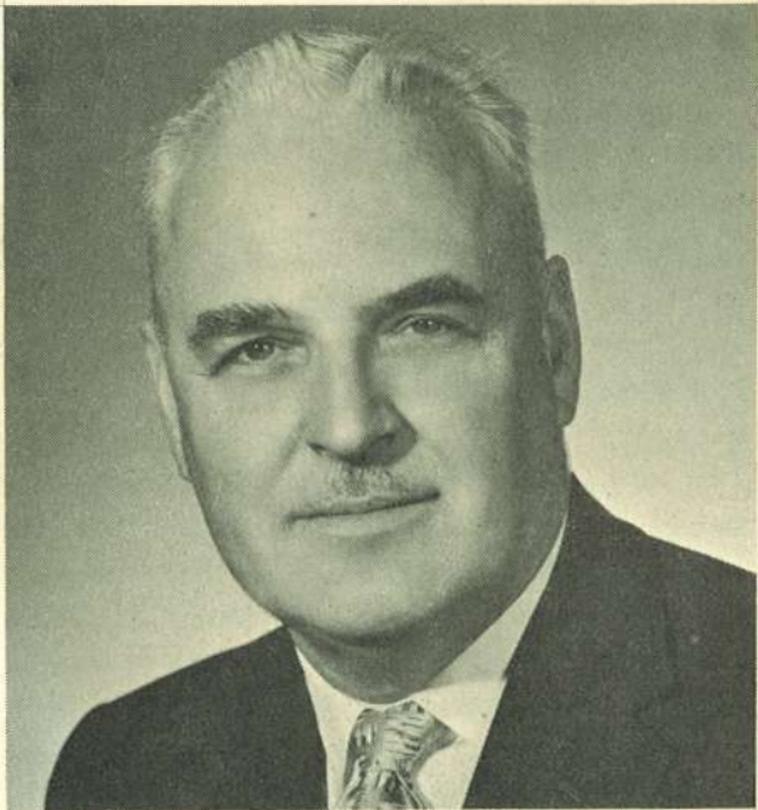
Bells are composed of an alloy of copper and tin in approximately a three to one proportion. Rigid control of the melting and pouring of the metal, in addition to giving the bell its correct shape, are necessary to produce a satisfactory result. In the days before tuning the old French saying "As surprised as a bell-founder" had real meaning, but scientific methods have removed the uncertainty from the making of bells.

The carillon is played from a clavier which is arranged like a large piano keyboard, except that small round oak levers spaced 2 inches apart take the place of ivory keys. The carillonneur presses or strikes the levers with his fingers or the side of his hand to play the smaller bells and presses pedal levers with his feet for the bass notes, as on a pipe-organ. The bells do not move, but are struck by the clappers which are connected to the keys by a simple lever system. Since there is no electrical or other intervention the player can make the sound loud or soft at will, emphasizing particular notes or melodies, just as a pianist does. The clappers are carefully balanced with springs, so that even the 325 pound clapper on the Bourdon responds easily and quickly to the touch. In the Rainbow Carillon the clavier is in a cabin which may be seen in the middle of the belfry, between the ten largest bells and the lighter bells above.

The bells are best heard at a short distance from the Tower. The Rainbow Gardens and the streets north of the Tower on the Canadian side offer the best vantage points.

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## The Carillonneur



LELAND RICHARDSON'S carillon recitals from the Rainbow Tower have thrilled millions of visitors to Niagara Falls since he assumed the post of Carillonneur in 1959. His varied and stimulating programmes have become one of the major attractions of a visit to this historic beauty spot.

Mr. Richardson a member of the Guild of Carillonneurs of North America, received his training on the carillon at the Belgian National Carillon School. Carillonneur to the University of Toronto for many years, he has been guest recitalist on all carillons of Canada and many in Europe and the United States. including the carillon of the National Shrine of the Immaculate Conception in Washington, D.C., the Netherlands Carillon in Arlington, Va., and the Washington Memorial Carillon in Valley Forge, Pennsylvania.

He has developed a unique style which combines deep sincerity with wide audience appeal. Following one of Mr. Richardson's recitals an international music critic wrote "He has a tremendous talent for improvisation, a great natural facility for manipulation, and the capacity for real musical expression."