

## A Brief History

Chiming bells (swinging them through a short arc using a rope and lever) goes well back into the Middle Ages, but it was not until the seventeenth century that ringers developed the full wheel, which allowed enough control for orderly ringing. In 1668 Fabian Stedman published *Tintinnalogia* –or *The Art of Change Ringing*, containing all the available information on systematic ringing. The theory of change ringing set forth by Stedman has been refined in later years but remains essentially unchanged today.

The British brought change ringing to the American colonies, installing bells in Boston, Charleston, New York, and Philadelphia in the eighteenth century. Paul Revere joined the band of ringers at Old North Church in 1750 when he was 15 years old. His familiarity with the tower and his association with its keeper enabled him to use the tower for the lantern signals that directed his famous midnight ride.

After the Revolution, change ringing began to fade away in the United States. Throughout the nineteenth century new rings of bells were installed at scattered locations, but interest waned. A weak revival occurred around 1900 with several additional new rings. By mid-20th century only a few towers had active change-ringing bands.

Two new rings in Canada in the 1950s and the 10-bell ring at Washington Cathedral in 1964 sparked a revival that continues to gather momentum. There are over 50 operable rings in North America today, most associated with churches. Over half have been installed since 1960, and still more are in the planning stages. There are over 500 ringers in North America.



**BELLRINGING** celebrates the joy of weddings and victories, intones the sadness of deaths and funerals, and summons people to church.

The casual listener immediately recognizes that some bells play hymns, songs, and melodies. Those bells are in what are called carillons or chimes. The bells do not swing, and the striking of their clappers is controlled by one person, the carillonneur or chimier.

The bells in towers as described in this pamphlet produce no recognizable tunes. Yet they are rung in sequences as disciplined and orderly as the stones and timbers of the towers themselves. These bells, rung in an ancient, yet very modern, way, produce a rich cascade of sound. This is change ringing.

Change ringing requires special bells, special “music,” and ordinary people who enjoy climbing towers, working as a team, and doing “The Exercise.” The human ingredient is critical because change ringing is very different from playing a carillon. It is not a single person at a keyboard. There are no computers or electronic devices. Change ringing depends on real bells, each swung in a complete circle by a single person: six bells—six people, eight bells—eight people, usually standing in a circle.

For more information contact:

or

visit our website at: [www.nagcr.org](http://www.nagcr.org)

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## Why Do People Ring?

Change ringing is a noncompetitive and nonviolent team activity that is highly stimulating intellectually and mildly demanding physically, and makes a beautiful sound. It develops mental and physical skills in a context of communal effort. The intense concentration required brings a euphoric detachment that cleanses the mind of the day's petty demands and frustrations.

Many people ring as a contribution to church life. A second attractive feature is the companionable nature of ringers. The interdependence among individuals creates a tremendous fellowship. Visitors to a change ringing session will invariably be asked to join in if they are ringers. Almost all ringing sessions include time for socializing.



## Could I Be a Ringer?

Probably. Ringing is within the intellectual and physical reach of anyone who can ride a bicycle. If you can count, you know all the mathematics you need. You can become a very good ringer without knowing anything else about music. Some intense practice is required at the outset, and ringers practice regularly once or twice a week. Most also ring before or after church on Sunday. You be the judge. Come to a practice session and join in.



*Tower Bell Ringing*



# The North American Guild Of Change Ringers



## The Bells

The bells are special in several ways. They are large, ranging in weight from a few hundred pounds to several tons. A ring of bells consists of three to twelve or more bronze bells.

Bells for change ringing are hung in stout frames that allow the bells to swing through 360 degrees. The harmonic richness of a swinging bell cannot be matched by the same bell hanging stationary. Each bell is attached to a wooden wheel that has a handmade rope running around it. The mechanism achieves such exquisite balance that 10-year-olds and octogenarians can control even quite large bells easily. Each swinging bell requires one ringer's full attention.

The bells are arranged in a frame so their ropes hang in a circle in the ringing chamber below. Into each rope is woven a long tuft of brightly colored wool (called a sally), which marks where the ringer must catch the rope while ringing.

Bells are rung from the "up" position. With a pull of the rope, the bell swings through a full circle up to the up position again, but on the other side. With the next pull it swings back in the other direction.

## The Science

Bells are in effect pendulums, and the physics of such swinging objects governs their motion. It takes about two seconds for a bell to travel from mouth up one way to mouth up the other way, so they cannot be used to play ordinary "melodic" music. But they can be made to follow one another in order, each ringing once before the first one rings again. Ringing bells in a precise relationship to one another is the essence of change ringing. Rung in order from the lightest, highest-pitched bell to the heaviest, the bells strike in the sequence known as rounds, which ringers denote by a row of numbers:

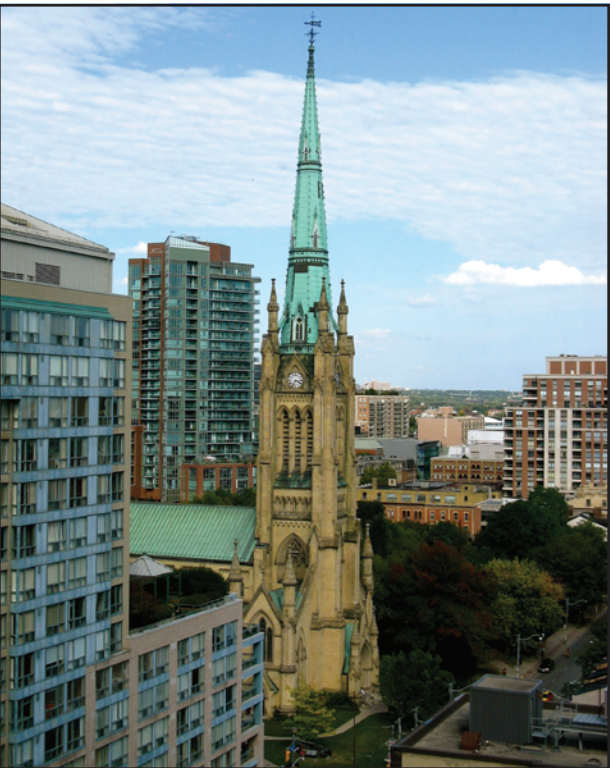
1 2 3 4 5 6 7 8

To produce pleasing variations in the sound, bells are made to change places with adjacent bells in the row, for example:

1 2 3 4 5 6 7 8

2 1 4 3 6 5 8 7

These rows of numbers are the musical notation of change ringing. No bell moves more than one place in a row at a time, although more than one pair may change in the same row.



St. James Cathedral, Toronto Ontario

## The Music

No amount of explanation of change ringing—or its pleasures—can substitute for listening to and ringing bells. However, it may help non-ringers to enjoy change ringing if they know what to listen for.

First, the rhythm should not vary from row to row. The rhythm provides the steady framework within which the complex changes can be heard. Listen for two rows rung in precise tempo, followed by two more rows, and so on. The pause between each pair of rows will help you determine which bells ring first.

Second, listen for the bell that strikes the lowest note. This is called the tenor bell. In some methods it strikes last, even when other bells are changing their position in the order. Listen for the highest bell, the treble, as it makes its way through the rows. Listen also for rows in which large bells alternate with small bells throughout the row. These are considered particularly musical, and composers strive to include as many such rows as possible.

## Method Ringing

In order to ring a different row or change with each pull of the rope, ringers have devised methods, orderly systems of changing pairs. In ringing a method, the bells begin in rounds, ring changes according to the method, and return to rounds without repeating any row along the way. These changes of place produce musical patterns, with the sounds of the bells weaving in and out as if they were folk dancing with each other.

Plain Hunt Minor	1	2	3	4	5	6
	2	1	4	3	6	5
	2	4	1	6	3	5
	4	2	6	1	5	3
	4	6	2	5	1	3
	6	4	5	2	3	1
	6	5	4	3	2	1
	5	6	3	4	1	2
	5	3	6	1	4	2
	3	5	1	6	2	4
	3	1	5	2	6	4
	1	3	2	5	4	6
	1	2	3	4	5	6

The more bells involved, the longer the bells can ring without repeating a row. Five bells allow 120 different rows (1 x 2 x 3 x 4 x 5). The numbers increase rapidly. Six bells yield 720 different changes (1 x 2 x 3 x 4 x 5 x 6), 7 bells 5,040. Eight bells can be rung through 40,320 changes.

## Peal Ringing

Experienced ringers test and extend their ability by ringing peals, defined as 5,000 or more changes without breaks and without repeating a row. Peals usually last about three hours. The first peal was rung in England in 1715.

The first peal in North America was rung at Christ Church, Philadelphia, in 1850. The band included several English ringers brought to the United States by P. T. Barnum for his shows. The first peal in Canada was rung at the Cathedral of the Holy Rosary, Vancouver, for the coronation of George V in 1911. In the past decade 40 - 50 peals on average have been rung in North America each year.



St. Martin in the Fields, Philadelphia, Pennsylvania

## The North American Guild

The North American Guild of Change Ringers encompasses and links together ringers from the continent's widely separated towers and hand bell groups. Its meetings attract ringers from all over Canada and the United States as well as other parts of the world where change ringing is practiced. The Guild publishes a quarterly newsletter, The Clapper, conducts ringing courses, holds a striking competition, provides a book service, rents videos, DVD's, and CD's, and distributes information about change ringing in North America. The Guild welcomes members and newsletter subscribers. The North American Guild is affiliated with the Central Council of Church Bells Ringers based in England.

## Change Ringing on Hand Bells

Change ringing extends quite naturally from tower bells to hand bells. Freed from worry about controlling a tower bell, each ringer takes two bells and must thus keep in mind the position of each. Peals rung "in hand" command the same respect as those rung on tower bells. In North America, with towers few and far between, much change ringing is done on hand bells in areas far from a tower.

Although it is difficult for a group to learn to ring in isolation, some of our ringers have begun with only the help of some books, letters, and a few visits from experienced ringers.



Hand Bell Ringing