

Beiaardkunst

Handelingen van het
Eerste Congres
Mechelen

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Gedrukt bij L. Godenne, te Mechelen.

zich echter blijven geven. Is, gesteund door de waardeering van enkele vrienden, niet ontmoedigd.

Ziehier een schoon voorbeeld voor vele Noord-Nederlandsche klokkenisten.

Men moet beseffen dat men geene liefde en waardeering kan verwachten voor iets wat men niet kent.

Men moet beginnen met « zich te geven », steeds blijven schenken, overvloedig en dan, zoo langzamerhand, zal de waardeering komen, ook bij de Noord-Nederlanders.

Daarom ook zou ik de Noord-Nederlandsche klokkenisten willen toeroepen « ende en despereert niet » houdt vol, houdt moed, en werkt niet uzelf tegen door 't stichten van verwarring, gij, die kunt medewerken tot veredeling van den volksmaak, gij die kunt medewerken tot veredeling van den volkszang, die dus, indien ge wilt, mede opvoeders van uw volk kunt worden. Voorwaar een schoone taak wacht u, onttrekt er u niet aan!

Samenvatting der voordracht van den heer William Wooding Starmer :

The influence of Mechlin carillon art on English bell founders and bell music.

In his second address Mr Starmer began by pointing out the difference between the expressions « bell ringing » and « bell playing ».

Bells must be « swung » in order that they may be « rung » as in change ringing. Chimes « play » — the carillon is « played ». Much confusion exists amongst English writers as to the proper terms which should be employed.

A chime of bells consists of the notes of the diatonic major scale with perhaps two extra semitones to provide for simple modulations,

and is limited in compass. The Carillon consists of a chromatic series of bells, 12 notes to the octave, and should never be less than 3 octaves or more than 4 in compass. Bells for chimes and carillons are hung « dead » i. e. « fixed ». Chimes are played automatically and in England, melody only. Chimes have recently been played by a performer — by means of a clavier — exactly the same as that provided for the carillon.

England centuries ago was called the « ringing » isle, and Handel is credited with having said that « the bell » is the national instrument.

The English love of bells and bell music is in a great measure due to the « exercise » known as « change ringing » and to a lesser degree to the automatic playing of tunes called « chimes ». Recently however the greatest interest has been shown in carillon music for which the Mechlin Carillon Concerts are directly responsible, so much so, that the great Loughborough War Memorial now being constructed — consisting of a campanile and carillon of 47 bells and costing £20,000 — has amongst its strongest supporters those who have been influenced by the beautiful effects of the carillon playing at Mechlin.

Carillon music requiring the use of bells in combination is responsible to a considerable extent for the great advance made in the tuning of bells, for which the firm of Messrs Taylor of Loughborough are particularly eminent. Their foundry is the largest in the world — the buildings of which occupy an area of 7,000 sq. metres. The tuning machines specially designed and constructed can tune to the accuracy of a single vibration — bells from 5 to 50,000 kgr.

All the machinery is electrically driven and none but specially trained workmen of the highest skill are employed.

It is sometimes the case that four generations of the same family are working together — grandfather, father, son, and grandson. In the foundry are two towers — one containing a ring of 8 bells hung for change ringing, and the other, a carillon of 40 bells with clavier. The largest bell cast by Messrs Taylor is the Bourdon of St. Paul's Cathedral, London, weighing 17,000 kgr.

The principal carillons made by them are :

British Isles : Bournville, 37 bells. — Queenstown Cathedral, 42 bells. — Armagh Cathedral, 39 bells. — Loughborough (2), 40 and 47 bells. — Parkgate, 37 bells.

Holland : Rotterdam City Hall, 49 bells. — Flushing. — Eindhoven, 25 bells. — Appingedam, 25 bells. — Edam.

America : Gloucester, 31 bells. — Birmingham, Alabama, 25 bells. — Morristown, 25 bells. — Andover, Mass., 30 bells.

Chimes : Manchester City Hall. — Yale University, U. S. A. — Abberley Hall.

When the Loughborough War Memorial Carillon is completed, which will probably be about June next, many new and great improvements in the action work between the clavier and the bells will be made.

The touch will be very much lightened so that a child will be able to play with the greatest ease from the manuals a bell of 5 tons and yet the clapper will be of ample weight to bring out the proper tone of the bell. It is hoped also that some approximate standardization of the clavier and pedals may be accomplished.

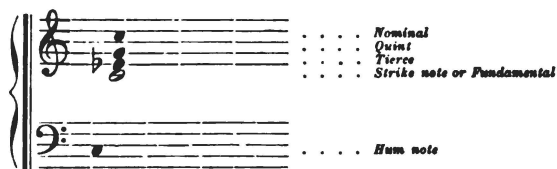
This is an imperative requirement for at present a carillonneur never knows what he has to deal with when going to play a strange instrument. The playing room will also be arranged so that the carillonneur will hear quite well exactly what he is doing and be able to judge his effects easily. In many cases — not excepting the most famous carillons — this is not a possibility at the present time. Another matter which has required very careful consideration is the exact disposition of the bells in the tower, so that *all* shall be heard by the listener *equally well*.

This difficulty will I am sure be most successfully dealt with, and I venture to predict that the arrangements to be carried out will prove to be a splendid model for any further installations.

After a minute and careful study of the bells of the United Kingdom and of the Continent, completed some twenty years ago, the speaker

formulated his theory respecting the tuning of bells in the following terms :

- 1) A bell must be « in tune » with itself before it can be in tune with others;
- 2) Every bell has at least five principal tones in it which can be accurately tuned;
- 3) These principal tones are the Strike Note, Nominal, Hum Note (these three must be perfect octaves with each other), Tierce (minor 3rd), and Quint (perfect 5th), thus :



(A bell producing this pitch should weigh (approximately) 2,000 kgr.)

- 4) All these tones must be in perfect tune with each other;
- 5) The tone quality of a bell depends :
 - a) On the consonance of its component parts;
 - b) On the relative intensities of the various partial tones, which in their turn are dependent upon the minute accuracy of sharply-defined height, width, and thickness proportions.

These conditions can be carried out to the accuracy of a single vibration by Messrs Taylor, who have been the pioneers in all matters connected with bells for the past quarter of a century.

The means by which these results are obtained are of course the bellfounder's secret. Modern bells should be superior to ancient ones, as the best existing conditions produce :

- 1) A better mould, ensuring a much truer casting;
- 2) A better form of bell as to design;
- 3) A greatly improved furnace, producing a perfect admixture of copper and tin;
- 4) A system of tuning which is a very great advance on any methods hitherto practised.