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CARILLONS

THE CARILLON TO BE IMPORTED BY THE PARK AVENUE BAPTIST CHURCH NEW YORK

PRESENTED BY MR. FLETCHER

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Carillon of 53 bells, Park Avenue Baptist Church, New York City

[Tenor bell: E, international pitch, 20,720 pounds. Compass of bells, 4½ octaves. Total number of bells, 53. Total weight of bells, 110,199 pounds]

No.	Note	Weight, pounds	No.	Note	Weight, pounds	No.	Note	Weight, pounds
1[1]	A	[2] 9	19	D♯	77	37	A	952
2[1]	G♯	9	20	D	84	38	G♯	1,148
3[1]	G	10	21	C♯	91	39	G	1,344
4[1]	F♯	10	22	C	112	40	F♯	1,652
5	F	12	23	B	119	41	F	1,904
6	E	14	24	A♯	140	42	E	2,296
7	D♯	16	25	A	168	43	D♯	2,688
8	D	17	26	G♯	196	44	D	3,248
9	C♯	18	27	G	224	45	C♯	4,144
10	C	20	28	F♯	280	46	C	4,480
11	B	22	29	F	336	47[1]	B	5,824
12	A♯	26	30	E	392	48	A♯	6,944
13	A	32	31	D♯	448	49[1]	A	8,736
14	G♯	35	32	D	504	50	G♯	10,640
15	G	42	33	C♯	560	51[1]	G	12,544
16	F♯	49	34	C	644	52	F♯	14,560
17	F	56	35	B	728	53[1]	E	[3] 20,720
18	E	63	36	A♯	812			

[1] Bells contained in this carillon which are not present in the carillon of St. Rombold's Cathedral, Malines, Belgium, which at the present moment is rated as the heaviest, deepest-toned, most important and best carillon in the world.

[2] Diameter, 6¼ inches.

[3] Diameter, 98 inches.

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THE CARILLON TO BE IMPORTED BY THE PARK AVENUE BAPTIST CHURCH, NEW YORK

LETTER OF FREDERICK C. MAYER, ORGANIST AND CHOIRMASTER, UNITED STATES MILITARY ACADEMY

BOARD OF TRUSTEES, PARK AVENUE BAPTIST CHURCH,
New York City.

GENTLEMEN: In response to your request for my opinion concerning the present tariff law whereby a duty of 40 per cent is imposed upon the importation of bells into this country, it appears that this law is just in so far as applies to such bells as would involve competition with the bells of our American bell founders; but it also appears to me that this law is unjust where it applies to such bells as are imported for use as a carillon (defined a little farther on), in that our American bell founders can not supply bells suitable for this purpose, and consequently no competition is involved.

Accepting the fixed principle of a tariff imposed upon imports for the protection of any native industry, would not the law be just in so far as it protected the product of such an industry within the limits of normal suitability and use of such a product, especially in a commercial and utility sense? But the moment that such a law places a heavy handicap upon the importation of certain products which are required for certain higher purposes, and if the quality demanded of such products for higher purposes is distinctly superior to that which can possibly be supplied by a native industry, such a law appears to be unjust and detrimental to the common good—especially when the use of this higher quality product is designed and intended solely for the broader culture and uplift of a community.

An application of this view of the problem to the industry of bell founding would work out as follows:

The import tariff protects our native bell-founding industry by imposing a fair duty upon competitive bells imported for purposes for which our native bells are wholly or passably suitable. But no such competitive condition can exist in the importation of bells intended for use in the highest and only truly artistic form of bell music—the carillon.

It is necessary to state that the art of casting and tuning bells of the highest musical quality was known and extensively practiced in Flanders several hundred years ago. But this art, like that of the old Italian makers of master violins, soon became lost; in the case of bells, the art has been rediscovered only within the present generation. This rediscovery has occurred in England, and to-day it is from this country alone that such high quality bells, suitable for carillons, can be obtained. Thus it is that an entirely new problem is created, and a revival in the old carillon art is in full swing in England, Holland, and Belgium.

STATEMENT OF INJUSTICE IN TAXING IMPORTATIONS OF CARILLONS

It must be stated positively that bells of this highest grade can not be procured from our American bell founders, and therefore for these no competition can be said to exist. Obviously it is unjust to impose a duty upon the importation of carillon bells, which are so necessary for the development in our country of the highest art of bell music.

Since printed technical information on the subject of bells as related to our present import tariff situation is practically unobtainable, a survey of facts may be worth while.

FIVE CLASSES OF BELLS, ACCORDING TO USE

Bells as to their use may be divided into five classes:

1. *Individual bells.*—This class is primarily utilitarian and includes locomotive bells, fire bells, clock-striking bells, church bells, etc., the purpose of all being mainly to act as a signal of some sort. For such purposes, power of tone and low cost are usually considered desirable, rather than musical quality.

2. *Small peals.*—The simplest class of music obtained from the collective use of bells occurs when three or four bells are grouped together for sounding "Cambridge quarters," "bugle calls," etc.

3. *Ringing peals.*—A higher class of the collective use of bells is found in sets of 8, 10, or 12 bells; and where the bells are swung, these are called ringing peals. So-called "changes," arranged mathematically, are rung by men who control the bells by means of ropes. This form of bell music is popular in England.

4. *Chimes.*—A still higher class of music derived from the collective use of bells, one which is both popular and unique in this country, is commonly known as chimes. A chime also contains 8, 10, or 12 bells, but the bells are stationary and not swung. The bells are sounded by means of clappers which are connected with a console or keyboard—the connections being wires, rods, roller bars, etc. The keys are horizontal handles, appearing not unlike small pump handles; and a pressure of any handle causes the clapper to strike the side of the corresponding bell. The notes of a chime correspond mainly to those of a major scale; i. e., an incomplete range.

5. *Carillons.*—The highest class of bell music, and the only class which may be defined as an art, is that of carillons. A carillon differs from a chime by being very much more extensive in compass or range of notes; by being complete within that compass—i. e., containing all the semitones of the chromatic scale—and by requiring bells of the finest musical quality and tuning.

Since the injustice of the present tariff law concerns only bells in their highest form of use—i. e., of a carillon—since carillons are essentially native to the Flemish portion of Europe (Holland, Belgium, and northern France), since our American civilization has so completely overlooked carillons until two or three years ago, and since there is likely to be a claim on the part of our native bell founders that their bells are suitable for chimes, while there can be no possible serious argument about their bells being unsuited for carillons, it may be of interest to investigate more fully the distinguishing points of difference between a chime and a carillon. This is particularly

important, for only in so doing can one understand why it is necessary, for a carillon, to obtain bells (1) of ample compass, and (2) of the highest musical quality and tuning. Then it will be apparent why such bells can only be obtained from certain skilled firms abroad, and why our native bells are totally inadequate for the purpose.

DIFFERENCE BETWEEN A CHIME AND A CARILLON

1. *Compass, and physical aspects.*—A chime may contain, on an average, 10 bells, with a compass (i. e., the distance between the lowest and the highest notes) of a little over an octave; a carillon must contain at least two octaves of bells (i. e., a minimum of 23 bells when the first two seimtones are omitted), has three octaves or about 35 bells as an average range, and attains a maximum compass of four octaves and a half, or 53 bells.

Something has already been said, under class 4, above, of the action and console of a chime; the action and console of a carillon is similar to that of a chime in principle, but is more extensive in compass and conforms more closely to the keyboard of a piano or organ. The keys of a chime console are usually arranged in a single row for the hands, and sometimes several of the keys are connected with pedals for one foot; the player stands up and plays usually a simple melody or tune, one note at a time. The keys of a carillon console are arranged in two rows for the hands and in two rows for the feet, similar to the manual and pedal keys of a pipe organ; there is a long row of so-called "white keys" for the hands, with another row of "black keys" mounted just above them; and for the feet there are two rows similar to those for the hands, containing white and black keys. The player, called the carilloneur, sits on a bench and plays with both hands and both feet simultaneously, like an organist.

The limited compass of a chime forces the player to alter the melody of many well-known tunes, since the bells are not only of limited range but also skip many of the semitones within that range. But the extensive compass of a carillon, containing a full complement of semitones within that compass, permits not only the playing of all melodies without alteration but also permits the playing of music in three, four, or even six continuous parts. The music obtainable from a chime is thus fundamentally and severely limited, since one hears only a few simple melodies, one note following another. In carillon music one hears not only a great variety of melodies but with harmonies or chords accompanying such melodies. A chime thus typifies a simple and very crude form of bell music, while a carillon obviously typifies the highest form of bell music.

Any boy can learn to play a chime, providing he has a simple knowledge of music, within a month. But in Belgium there is a national school of carillon playing, maintained by the Belgian Government, where the art of a carilloneur is taught with as great artistic thoroughness, pursued through years of serious devotion, as that connected with other branches of the art of music. The comparison of the 12-note console of what is often spoken of as our best native chime, that in the tower of the Cadet Chapel, West Point, N. Y., with the 45-note console of the finest carillon now in the world, that in the tower of the Cathedral of Malines, Belgium, would be

like comparing a child's toy-piano keyboard of one octave of white keys only with a standard piano keyboard of full and complete compass. And the difference in the music possible from these two sets of bells is like comparing the playing of a child with that of a mature artist.

It is significant that a chime, the simple form of bell music that we are familiar with in the United States, is practically unknown in Belgium and Holland, the true home of bell music in its highest form. To the untrained ears of those in this country who are accustomed only to chime music, it will be quite as deep a revelation to hear fine carillon music played by an artist carilloneur as the hearing of fine piano music played by an artist pianist would be to one who had never heard more than simple tunes on a piano played with one finger.

A question naturally suggests itself as to why our native bell founders can not manufacture more bells, both larger and smaller than their usual chime compass, to attain the extensive and complete compass required by a carillon. It is obvious that the lowest bass notes require the largest bells, and the highest treble notes require the smallest bells. A carillon is similar to an organ stop, where a separate bell, or pipe, as the case may be, must be supplied for each key, white and black, at the console. Why have our native bell founders confined themselves mainly to the medium-sized bells as used in chimes, while neglecting the larger and smaller bells? On the surface there would appear to be no difficulty in making a bell twice as large or twice as small to anyone who could make a medium-sized bell.

But it is just this point that brings out the underlying secret as to the unsuitability of most bells for carillon purposes. And we must look to the next section (2) in order to find that secret, and in so doing we discover that the answer to the physical question (1), as just outlined, is inseparably connected with:

2. *The musical quality and tuning of bells.*—One should be reminded, as we learn from the science of physics, that practically all musical tones are compound—i. e., each one is composed of a number of different sounds of different pitch and of varying strength, all sounding simultaneously. One of these sounds, the lowest, usually gets all the credit for the tonal effect of the whole family, in that it is heard with far greater prominence than the others which are softer and higher in pitch. These higher tones constitute what is known as the harmonic series, provided nature's magical arrangement of them in perfect mathematical vibrational ratio is not interfered with; the individual tones of this series are called harmonics or overtones. This is true, with one exception, of musical tones of all descriptions, such as those of the human voice, piano, organ, violin, flute, trumpet, etc. Helmholtz discovered, a half century ago, that the difference between the tonic quality of different voices, or of different instruments, is essentially a matter of harmonics.

The exception noted above refers to bell tones. It is not that a series of harmonics is not present in bell tones; as a matter of fact, the tone of a bell is preeminently compound. The principal harmonics within the tone of a bell can be heard sounding along with the principal tone with far greater distinctness than in any other form of musical tone. But the exception lies rather in the fact that in

bell tones, the series of harmonics is not evolved by nature in perfect order and ratio, but is at the mercy of human science. It is this all-important fact, that the harmonics within a given bell tone are more or less under the control of man, and not of nature, that is the stumbling block in bell founding.

In view of the discovery of Helmholtz that the quality of a given tone is governed by its harmonics, what wonder, then, when man lacks the scientific skill to properly arrange or produce the correct harmonics of a bell, that a lack of synthetic concord in the harmonic series should be the result, and that the tone will lack musical quality. That the harmonics decidedly affect the tone quality of a bell may be easily tested and accounted for. Thus it is that a single bell may sound out of tune with itself when its own harmonics are out of tune with each other.

The note of a bell is said to be that of its strike tone, which is the tone one hears most distinctly at the instant of striking, and which dominates the series of overtones for a brief period after the stroke. One peculiar feature about the harmonics of a bell lies in the fact that this principal note, or strike tone, is not the lowest tone of the series (as is the case with almost all other musical tones), but is commonly next to the lowest. The tone that thus sounds below the strike tone is called the hum tone; and being the lowest of the component tones of the harmonic family, it is really the fundamental of the whole series. Thus the hum tone is a very important member of the tonal family of a bell tone, which it proves by continuing to sound long after the strike tone and the other higher harmonics have died away.

The correct, or standard, arrangement of the principal harmonics of any given bell tone involves the following interrelationship:

Hum tone, a perfect octave below the strike tone.

Strike tone, a perfect octave above the hum tone, and a perfect octave below the octave.

Third, a minor third above the strike tone.

Fifth, a perfect fifth above the strike tone.

Octave, a perfect octave above the strike tone.

To prove that the notes of such a series produce a pleasant sounding chord (such as a trained ear hears within a single bell tone), one has but to strike them on the piano—such as C, C, E flat, G, and C in an ascending series. In testing the harmonics of a bell, the trained expert is able to strike the bell at certain points and in certain ways so as to isolate each of the principal members of the harmonic family, and is able to judge whether they have the proper relationship, or tonal distance, from each other in the same way that a violinist judges whether the strings of his violin are a perfect fifth apart, as they should be.

A question might be raised here as to where this standard series of harmonics for bells comes from, since is is not controlled by nature. One is greatly surprised to discover that the best bells, musically speaking, were made nearly 300 years ago in Flanders where a school of bell founding of pronounced excellence arose. This school was headed by two brothers—Franz and Peter Hemony—who developed remarkable skill, reducing bell founding literally to an art. The tuning of these old Hemony bells reveals such perfect harmonics, and the tone quality is of such pronounced beauty, that it has seemed

perfectly natural to take such bells as the standard for judging all other bells. At the outset, the expert ear is astonished at the series of harmonics within each Hemony bell. The first, or lower, six tones of the series all bear the same relationship to one another, namely, three octaves, two thirds, and a fifth. These intervals, and they have been tested at many different times, are in perfect tune among themselves, and this without question contributes largely to their beautiful tone quality. An intelligent musician or scientist, upon examining the order, or relationship, of the harmonics of these old master bells is instantly struck by the fact that they closely parallel the harmonic series of nature's own formula. While, on the contrary, the series of harmonics of most modern bells departs radically from nature's formula, which would seem to account for the skepticism of even the man on the street as to whether the bells he listens to are really in tune.

It may be repeated that the art of bell founding of the Hemony standard became well nigh lost in the succeeding centuries until within the present generation when two English bell founders have succeeded in restoring perfectly tuned harmonics to their bells by the aid of modern machinery, skill, elaborate experiments, and a determination to regain the perfection that had been lost. For carillons, it is absolutely essential that the principal harmonics of each bell be in perfect tune, since carillon music, like all real music, depends essentially upon harmony in addition to the factors of rhythm and melody.

In recent years I have tested and recorded the harmonics of fully 250 bells, whose casting dates ranged from 1380 to 1923, made by the leading bell founders of this country, France, Belgium, Holland, and England. With the rediscovery of the art of producing bells with correctly tuned harmonics, I have no hesitancy in saying that I believe within the next few generations bells whose harmonics are not correctly tuned will not be tolerated, since even at this time our cities require hand organs and hurdy-gurdies to be in tune. The tuning of a bell is unaltered by the march of centuries; it must, therefore, leave the foundry in tune if it is to sound in tune wherever it rings. Fortunately, bells can always be recast at a fairly low cost, offering thereby opportunity for retuning—which process is now going on in England at a surprising rate.

An interesting experiment in the North Sea revealed an advantage possessed by bells whose harmonics are properly tuned over those whose harmonics are in haphazard order. A test was made recently of the carrying power of the tones of bells with true and false harmonics; the test was made 30 miles from land and conducted as scientifically and impartially as possible. The test revealed about 100 per cent further carrying power by the bell with true harmonics, although the two bells sounded of about equal power close up, since they were of the same note and weight. This additional carrying power is accounted for by the fact that the tuned harmonics reinforce the principal tone since they are in sympathetic vibrational ratio.

In the tuning of the bells of a carillon it is not only important that the harmonics of each bell must be correctly in tune among themselves, but the strike tones of the bells collectively speaking, i. e., of the entire carillon, must be in tune with each other. An idea of the great difficulty thus presented to a bell founder who would undertake

to make bells suitable for a carillon may be gained by remembering that every time the strike tone of a bell is altered in the process of tuning the bells to each other the other four principal members of its individual harmonic series must likewise be changed and tuned anew to the strike tone. There is only a slight margin of tuning possible with bells.

Hon. William Gorham Rice, whose books on carillons are the only ones published in English, and who is internationally famous as an authority on carillons, quotes the following rules as described by William Wooding Starmer, fellow of the Royal Academy of Music, London, for the tuning of thoroughly musical bells, in his interesting book, "Carillons of Belgium and Holland," pages 109–110:

1. A bell must be in tune with itself before it can possibly be in tune with others.
2. Every bell has at least five tones (and in some instances more) which can be most accurately tuned.
3. These principal tones are strike note, nominal (above), and hum note (below), which three should be perfect octaves with each other, and the tierce (minor third), and the quint (perfect fifth) between the strike note and the nominal. All these must be in perfect tune with each other.
4. The timber of a bell depends (*a*) on the consonance of its component tones; (*b*) on the relative intensities of the various tones, which in their turn are dependent upon the minute accuracy of sharply defined height, width, and thickness proportions. These again must be so adjusted as to admit of the several tones being perfectly tuned without upsetting the ratio between the thickness proportions and other dimensions of the bell.

Mr. Starmer, in his address on The Art of Founding Carillon Bells, delivered at the Carillon Congress at Mechlin in 1922, spoke as follows:

Bells for carillon use must be most accurately tuned. This is imperative, for when bells are used in combination any defect of tune is very distressing to the musical ear, and the carilloneur has quite enough to think about to arrange his music in the most effective manner as to the best disposition of the notes without having to evade certain bells on account of inaccurate tune, by no means an unusual thing.

Van der Straeten has said:

A good bell is not made by chance but is the result of a wise combination of qualities and thought, a fine carillon is as precious as a violin by Stradivarius.

SUMMARY AND PROOF OF THE UNSUITABILITY OF AMERICAN BELLS FOR CARILLONS

Summing up the foregoing statements, it is an indisputable fact that the bells of a carillon must be in tune among themselves, and that the harmonics of each bell in the carillon be also in tune. If this is not the case, the sounding of the bells in harmony, or chords, produces very discordant results. It is for this reason that American-made bells are not suited for carillon use, simply because their harmonics are not properly controlled. And when it comes to bells larger and smaller (the latter especially) than those of medium size, the possible lack of tuned harmonics becomes one of greatest importance, in that the musical results are disastrous. It is for this reason that native bell founders do not even attempt to go beyond the medium range of bells, i. e., because they are unable to attain a result that would be tolerated even by an ignorant public. The compass of a complete carillon extends upward into that of the very highest octave of a modern piano, some two octaves (24 semitones) higher than our native bell founders have been able to carry their bells.

In the four simpler classes of the use of bells, i. e., single bells, four-bell peals, ringing peals, and chimes, the native bells do not show their defects so plainly. In fact, there are some American-made bells which sound quite pleasant when sounded alone or individually. But to introduce one bell whose harmonics were not lined up to the correct standard into a carillon would show up the defects of this bell at once; for it is in combinations of bells heard simultaneously that the discordant harmonics produce the most quarrelsome effect. An example of this would be experienced in putting an untrained man into a finely trained athletic team or in a company of seasoned soldiers. Such a man would show up to a much greater disadvantage than when doing something alone. An interesting parallel is found in the saxophone, which, while being very popular in "jazz" orchestras, is not among the instruments used in the fine symphony orchestras to be found in our larger cities—organizations which each number a hundred players upon some 25 different instruments. The reason that the saxophone is tabooed is solely because its harmonics are unduly prominent and somewhat discordant and do not blend well with those of other instruments; consequently, the saxophone produces an unrefined effect in combination with other more perfect instruments. Yet these discordant harmonics of the saxophone are not near so noticeable when the instrument is played alone. While the facts mentioned above regarding American bells are not generally known or realized, they are nevertheless true.

Mr. Rice, who has already been mentioned, writes as follows in an article called "Tower Music in Holland," published in the July, 1923, issue of the magazine "Holland and Her Colonies":

> American bell founders, I regret to say, have not as yet been willing to attempt to make the several chromatic octaves of attuned large and small bells required in a carillon.

Incidentally, Holland is buying all of her new carillons from England.

CULTURAL ASPECTS OF A CARILLON

From a cultural and artistic aspect, a well-attuned carillon is an asset whose influence has tremendous potentiality in a community. A carillon whose bells hang in an open tower is not the property of an individual nor of an organization, for it literally exists for the community. The carillon's musical messages of beauty, sweetness, tenderness, cheerfulness, hope, optimism, strength, and even faith are not closed within the walls and doors of an auditorium, but are flung to the four winds and heard, under favorable circumstances, for blocks away in every direction. That such music can be beautiful and pleasing to all is scarcely comprehensible to the average American who listens doubtfully to our American-made bells.

A carillon thus becomes by its very nature the property of a community. This fact is so strongly recognized in Belgium and Holland that the position of a carilloneur in any city in those countries is a municipal one. Regular public concerts are given by these city carilloneurs, often several times each week, usually evenings, Sunday afternoons, and holidays. The programs include many simple folksongs, known and loved by the humblest peasant, and also compositions of genuine musical value by composers such as Bach, Handel, Mendelssohn, Schumann, Chopin, etc. It is touching to

see the deep affection and pride with which the people of these communities regard their carillons and carilloneurs. It is well known that the carillons of Belgium are inseparably bound with the splendid patriotism of that country, such as has in recent years commanded the admiration of the world. If one wanted to destroy the morale of the Belgian people, it could hardly be done more effectively than by denying their accustomed ears the traditional ration of carillon music.

If there exists any form of more wholesome recreation for a community than carillon concerts, reaching as many thousands of people, it would be hard to imagine, and still harder to demonstrate to one who has witnessed the sociological effect of such concerts in countries where carillon music is known and loved.

A CARILLON NOT A MUSICAL INSTRUMENT IN A COMMERCIAL OR TARIFF SENSE

Returning to the subject of the tariff duty on bells as musical instruments imported into this country, it is wholly unfair to class carillons as musical instruments in the ordinary commercial sense of the word. The principle of imposing a duty upon musical instruments implies that such instruments can be used for the private benefit or profit of an individual or for an organization. But where the carillon is clearly seen to be the property—as to its use and the benefit therefrom—of the whole community, it is not fair that it be classed with musical instruments, in the tariff or commercial sense of the word.

NEED OF TARIFF REVISION—SUMMARY OF REASONS

From an intelligent investigation of the facts, it is obvious that the present import tariff on carillon bells is unfair and unjust, in addition to being detrimental to the development of a wholesome morale and for the artistic advancement of this country, for the following reasons:

(*a*) No competition exists for carillon bells.

Reason: Because American bell founders can not make bells of the extensive compass, musical quality and tuning suitable for use in a carillon. American bell founders can not and will not guarantee to produce first-class bells which will stand a rigid test according to the high musical and scientific standard necessary for use in a carillon.

(*b*) A carillon is not a musical instrument in the tariff or commerical sense of the word.

Reason: Because a carillon is not installed for the private benefit of an individual or for an organization, but is in reality the property of the community due to the fact that its normal activity is freely and unrestrictedly enjoyed by the community.

(*c*) A carillon is of definite and positive value to the public.

Reason: Because carillon music is one of the most potent and irresistable influences for the cultivation of a wholesome morale and for the artistic advancement of any community.

In view of the fact that bells suitable for use in carillons (i. e., bells of extensive compass, fine musical quality, and accurate tuning) can not be and never have been produced in this country, a revision of the present import tariff law, which imposes a duty of 40 per cent upon all bells, should be made without delay, so as to allow carillon

bells to enter this country free of import duty—in that such bells can not be considered competitive. On the other hand, bells which are imported for use in one of the other four classes (i. e., as single bells, small peals of 3 or 4 bells, ringing peals of 8 to 12 bells, and chimes of 8 to 15 bells) should not be allowed to enter the country free of import duty since they can be considered to be competitive, and in view of the existing protective tariff, they should be required to pay the present rate of 40 per cent as an import duty. In this way all imported bells except those intended for carillon purposes would have to pay an import duty.

Since the revival of carillons has come to the world only within the present generation, and since carillons have been introduced into this country only within the last year and a half, a new problem has thus been created. Therefore, the importation of carillon bells can not be said to conflict, and should in no way conflict, with the manufacture and sale of native bells along the lines of trade that have already been established and developed by our native bell founders. Thus there will be no competition, or interference with the local product.

(At some time in the future, public sentiment may demand that all bells which are heard by the general public shall be in accurate tune with themselves and with one another. Then, at such a time, our American bell founders will be compelled to improve their standards providing they have the skill to do so. And should this improvement in the tone quality and tuning of our native bells come about in such a manner, the present revision of the import tariff on carillon bells, as suggested, will have proven itself a blessing to the entire country. The writer has seen, heard, and tested a bell in England, cast in 1380, which is still in heavy (swinging) active use; the bell has never been recast, and yet its component tones, or harmonics, are in more accurate tune than those of our average American bells. If all of our native bells made to date are still sounding in A. D. 2466, a similar period hence, remembering how the tone of a bell is literally broadcasted in every direction, often for the distance of a mile or more, and that the tuning of a bell never alters after it leaves the foundry, the relation of this entire matter to the public good may be seen much more convincingly.)

SPECIAL EXEMPTION FOR THE PARK AVENUE BAPTIST CHURCH CARILLON, NEW YORK CITY

While the removal of an import duty upon carillon bells in general is just and sound in principle, for the reasons previously stated, the following very special reasons why the bells now being made in England for the proposed carillon of 53 bells (see appendix) to be installed by the Park Avenue Baptist Church in the belfry of their church on Park Avenue at Sixty-fourth Street, New York City, should be admitted without the infliction of an import duty are noted as follows:

1. All who have had anything to do with this carillon have labored to achieve a genuinely idealistic result.

2. This carillon will mark the beginning of a new epoch in bell history, since it will be the largest and most complete carillon ever installed at any time in any country. Some of its unique features which excel those of other carillons will be:

(*a*) Will contain the most improved mechanical action and console.

(*b*) Will contain the largest and heaviest "tenor" (or lowest) bell, and sounding the lowest note. The carillon in St. Rombold's Cathedral, Malines, Belgium, has held the proud position of being the greatest in the world since 1844 when its largest bell was cast. The largest bell of the New York carillon will weigh 20,720 pounds, sounding low E, a note almost two semitones lower than that of the Malines tenor bell.

(*c*) Will contain the largest number of bells, which means the most extensive compass. Some estimate of the importance and rating of a carillon may be obtained through knowing the total number of its bells, just as some estimate of the destructive efficiency of a battleship may be obtained by knowing the total number of its guns. The carillon now possessing the largest number of bells in the world is that in the municipal belfry of Ghent, Belgium, whose 52 bells represent a mass of 64,273 pounds of bell metal. The New York carillon with its compass of 53 bells will exceed that of the Ghent carillon by one bell.

(*d*) Will contain the heaviest total mass of bell metal. A more comprehensive estimate of the importance and rating of a carillon may be obtained through knowing the total weight of bell metal available for vibration, just as a more comprehensive estimate of the destructive efficiency of a battleship may be obtained by knowing the total weight of projectiles available for one discharge. The carillon now possessing the greatest total weight of bells in the world is that of Malines, Belgium, whose 45 bells represent a mass of 75,172 pounds of bell metal. The carillon in Malines consequently takes precedence over that in Ghent. The New York carillon, with its total mass of 110,199 pounds of bell metal available for vibration, will exceed that of the Malines carillon by 35,027 pounds.

3. It is proposed to engage one of the very finest carilloneurs obtainable abroad for the purpose of giving free recitals on the carillon from time to time for the enjoyment and edification of the community of New York.

4. In that carillon music is totally unknown and unrealized in this country, it is highly desirable that the first important example should be correct and authoritative. This is assured by importing the finest carillon bells obtainable from any country, and by importing an artist-carilloneur who has had years of special training and expereince in the art of playing carillons, and who is thus versed in all the traditions and secrets of achieving the maximum artistic results from bells.

5. The establishment of a correct and authoritative carillon center in so prominent an institution and location in our greatest city will not only prove an incentive to other communities for similar projects but will set an example of the highest quality, the influence of which will be felt throughout the entire country for perhaps centuries to come. (As a detail of this influence, a practice console will be provided in the church so that young American pupils can study the art of carillon playing without being heard until they are capable of producing real music.)

6. This carillon will serve as an example for similar benefactions throughout the country, especially for memorials. In England there have been installed several carillons as war memorials; often the in-

dividual bells were given as individual memorials. Having in mind that the carillon can be enjoyed by all, this solves the memorial problem in a way that has rarely been equaled, since a carillon will ideally fulfill its mission as a memorial while providing a form of art and beauty that can be readily assimilated and appreciated by all classes of people.

This greatest of all carillons might be considered the noblest product of the blast furnace, or physical melting pot. In that its harmonious messages will need no interpreter, it will veritably symbolize the spiritual melting pot of the highest American ideals in this great gateway to the New World.

FREDERICK C. MAYER,
Organist and Choirmaster,
United States Military Academy.

WEST POINT, N. Y., *November 23, 1923.*

(Suggestions by Mr. Mayer of a technical nature as to a possible revision of the present tariff laws and the recommendation of an actual subsidy for any great carillon may be found in appendix on page 43.)

LETTER OF HON. WILLIAM GORHAM RICE, AUTHOR OF "CARILLONS OF BELGIUM AND HOLLAND," ETC.

BOARD OF TRUSTEES OF THE
PARK AVENUE BAPTIST CHURCH,
New York City.

DEAR SIRS: There are many reasons why you should be able to bring into this country free of tariff tax the carillon of 53 bells which you intend to place in the belfry of your church:

I. Such bells will be a majestic and beautiful instrument not made in this country which will serve to educate multitudes of people in the noblest music;

II. They will charm great multitudes as well as urge them to devotion;

III. They with over four octaves of notes will constitute a kind of unique musical instrument—essentially different from any assemblage of bells made in America;

IV. The Congress has already established the precedent of admitting such bells free of tax for similar reasons in the case of the carillon in the Roman Catholic Church of Our Lady of Good Voyage of Gloucester, Mass.

The carillon is a majestic musical instrument consisting of specially attuned bells of a character which are not and never have been made in the United States. It possesses substantially all the tones and half tones through a range of two to four or more chromatic octaves. Upon a carillon, music written in any key can be played. A chime possesses substantially only the tones required for playing the few notes of one diatonic key.

In every properly made bell there are five tones which are distinguishable to the trained ear, all of which five tones must be brought into perfect accord. In a well-attuned carillon not only must every bell be thus in tune with itself but it must also be in tune with all its

associated bells however many they may be. Such bells must be tuned to embody the theory described on pages 109–110 of "Carillons of Belgium and Holland," of which I am the author.

A chime is played generally by striking one note at a time. Upon the carillon, chords of many notes are played. The works of the greatest composers can be justly and expressively performed on the carillon.

The carillon has been for five centuries the music of freedom. The sweet and far flung harmonies of carillons have often revived in the hearts of the Flemish peoples the love of liberty for which they have fought and suffered valiantly during many generations. The belfry was the first symbol of municipal rights wrung by fearless citizens from feudal tyrants in the Middle Ages. The belfries of the Low Countries long have been rallying points in the struggles for human rights; the carillon is the most beautiful and poignant expression of their inspiration.

The carillon in foreign lands has long called the citizens not only to worship and thanksgiving, but to counsel for their liberties or to arms in defense of their rights. They had been long established when Francesco Belli, in the suit of the Venetian ambassador to the Netherlands, wrote of them in 1626:

> The bells in the Low Countries serve for music; their timbre is so sweet and their harmony so complete that they express and include all the notes of the voice.

And so they have continued to this day. It was with the strains of the national anthem thrilling from the carillon through the sky that the King of the Belgians reentered the ancient city of Bruges in 1919, at the end of the Great War.

Exemption from duty is warranted by the educational value of the carillon. Throughout Belgium and Holland and in some cities of France, Spain, and England these bells are heard daily by thousands. When one of the illustrious bell masters of the Low Countries gives a concert, the public squares, the market places, and the parks and gardens are crowded by tens of thousands of men, women, and children who listen eagerly throughout the program. Longfellow, Stevenson, Thackery, and other eminent authors have testified to the charm of such music.

Further confirmation of reasons for admitting your splendid carillon free of duty appear in the various articles and books I have written, which are to be found generally in the public and musical libraries of the United States and all foreign countries; such as "Carillons of Belgium and Holland," 1914, "The Carillon in Literature," 1915, "Musical Quarterly for April, 1915," "Art and Archeology for August, 1921," "Holland and its Colonies, July, 1923," etc.

If by the use of the radio, which I understand is contemplated, the tones of your carillon played by a master shall be carried daily throughout this country and the world, its value in education and inspiration would be difficult to estimate.

With congratulations upon the great public contribution to art which your church is about to make, I am,

Sincerely yours,

WILLIAM GORHAM RICE.

ALBANY, N. Y., *December 1, 1923.*

LETTER OF MR. HARRY HARKNESS FLAGLER, PRESIDENT SYMPHONY SOCIETY OF NEW YORK

The Board of Trustees of the Park Avenue Baptist Church, New York City.

GENTLEMEN: I am glad to learn that you purpose to install in the belfry of your church a carillon of 53 bells, which constitutes a splendid musical instrument of wide scope, great flexibility, and rare beauty. I trust that you will be able to bring these bells into our country free of tariff tax for the following reasons:

1. The carillon has been for ages the most appealing musical expression of the love of freedom which has inspired the people of the Low Countries to endless heroism in the struggle for human liberty. Its influence is for patriotism.

2. The carillon has extraordinary educational value. The finest and noblest music played by a master on the carillon can not fail to stimulate a love for the best music among the vast multitudes who shall hear it.

3. The carillon is a unique musical instrument; it is not made by our bell founders, and therefore its importation can not conflict with American interests. Our founders make bells, peals, chimes, but not carillons. The Congress already has shown appreciation of this fact by admitting free of duty the carillon for the Church of Our Lady of Good Voyage, at Gloucester, Mass.

With best wishes for your success in this project, I am,

Yours very truly,

HARRY HARKNESS FLAGLER.

LETTER OF DR. WALTER DAMROSCH, CONDUCTOR AND MUSICAL DIRECTOR OF THE SYMPHONY SOCIETY OF NEW YORK

The BOARD OF TRUSTEES OF THE
PARK AVENUE BAPTIST CHURCH,
New York City.

GENTLEMEN: I can never forget the impression that the famous carillon of Malines, Belgium, made on me one afternoon shortly after the war. I went there from Brussels by invitation from the old bell ringer, the most famous in the world, who has officiated there for so many years and whose work was only interrupted when the Germans entered and took possession of Malines.

The tone of these bells is of a curious, mysterious, and beautiful character, and there is something very uplifting in hearing the music floating through the air from the high altitude of the belfry tower.

I am so glad to hear that a carillon is being made for the Park Avenue Baptist Church and I think that as an art work it should enter our country free of all customs duties.

These bells are not made in America and their importation therefore can in no way conflict with an American industry.

I am sure that the carillon of the church will be an important and welcome feature for all religious and civic celebrations held in New York City and will give pleasure and uplift to many thousands.

Very sincerely yours,

WALTER DAMROSCH.

NEW YORK CITY.

Resolution of American Scenic and Historic Preservation Society with Report of President Dr. George F. Kunz

[Extracts from the minutes of the two hundred and tenth meeting of the board of trustees of the American Scenic and Historic Preservation Society, of which Dr. George F. Kunz is president and Dr. E. H. Hall is secretary, held in New York City, Monday evening, December 3, 1923]

The president presented a report concerning the carillon of 53 bells which is being cast in the foundry of Messrs. Gillett & Johnston, at Croyden, England, for the Park Avenue Baptist Church, of New York City, and said that it would be the largest and most important carillon in the world, exceeding in scope even the famous set of bells in Ghent. As there is a tariff of 40 per cent on musical instruments, and as the Treasury Department classifies bells as such, he suggested, in view of the destination of these bells, the exceptional educational service which they would render, and the fact that such a carillon can not be made in this country, that Congress be requested to pass a special law, as it had done heretofore, to exempt this carillon from customs duty. In this connection, the president presented the following statement of facts regarding carillons in America:

It is often said that New York enjoys the finest music in the world. A resident or visitor here may enjoy the finest performance of opera, of symphonic and choral organizations, chamber music, and recitals by the finest artists in the world upon all instruments of recognized value. One exception must be taken to this broad statement, however, in that carillon concerts are practically unknown in this New World; and, being unknown, such music has not yet attained to recognition on the part of American music lovers.

Starting with the fact that a carillon is composed of bells—a fact that nearly everyone knows, but beyond which scarcely any of even our highest cultured class have penetrated—a comprehensive idea of what a carillon is may be gained through dividing bells in general into various groups according to their usefulness.

Bells are known mainly through their functioning as signals, used individually or in small groups, such as fire, fog, clock, and church bells. Bells are also used in small groups with an artistic object in view, such as the sounding of the Cambridge quarters from the Metropolitan tower of this city. Bells in groups of 8 or 10 are also swung, although rarely in this country, for ringing changes. Chimes are the most popular form of bells in this country, and the chimes of Trinity and Grace Churches are known throughout the country. And yet the music of chimes is at best but child's play as compared to that of a carillon. Chimes may be defined as a small number of bells, usually 8 or 10, which play only the notes of the diatonic scale, with one or two accidentals thrown in. With a limited compass of only a tone or two more than a single octave, only the simplest tunes can be played, and then frequently with alterations. Only one note is struck at a time, and no attempt at chords can be successfully made with such limited resources.

A carillon might be defined as an organ of bells, since it is played with both hands and feet, from a console, or keydesk, containing rows of manual and pedal keys similar to an organ, but having bells instead of pipes. The compass of a true carillon comprises several complete octaves, in which practically all of the chromatic semitones are present. Up to the present time the largest compass of any carillon is that of Ghent, Belgium, which contains 52 bells, or nearly four and a half octaves.

What is musically possible with such a complete instrument as a carillon as compared with the music obtained from chimes may be easily imagined. Yet at best a carillon may be compared to any fine, responsive instrument, such as a Steinway piano, and is consequently dependent upon the touch of a master to reveal its latent, artistic soul. One hears in Belgium, where carillon music has been a national enthusiasm for centuries, artists trained to a very high degree in playing carillons. These men are called carilloneurs. In Malines, a city of 100,000 people, I should have no hesitancy in saying that, next to Cardinal Mercier himself, the city carilloneur, Monsieur Josef Denyn, is most highly regarded and beloved by all of its citizens, and when you hear Denyn, the greatest carilloneur in the world, playing compositions by Bach, Handel, Schubert, Mendelssohn, etc., involving complex harmonies, modulations, and great technical skill, you realize for the first time that here is a form of musical beauty totally

unknown in America. And were we to ask a carilloneur like Denyn to play upon our native chimes we should be heaping almost as much of an insult upon him as would occur were we to ask Paderewski to play upon a toy piano.

Carillons are not made in this country, owing to the fact that the compass demanded, from two to four and a half octaves, is totally beyond the powers of our native bell founders, and owing to the fact that the bells themselves must be very finely attuned not only among themselves but within themselves. The designing, casting, and tuning of such bells is an art; and, as a matter of fact, such bells can be obtained only from certain English firms, who guard their secrets with the utmost care.

Of the first importance is the necessity for every carillon bell to be in tune with itself. The tone of a bell is noticeably compound, and the various harmonics, or overtones, may be heard with ease. These harmonics should be accurately tuned to the principal or "strike tone" of a bell. To state that the first five tones of the harmonic series within a bell conform—i. e., in a correctly tuned bell—to three octaves, a third and a fifth, this will mean much to the scientific man who at once recognizes an almost exact parallel of nature's own arrangement of the harmonic series in ordinary tones. Unfortunately, nature cannot have a free hand with the harmonics within a bell, and these are at the mercy of the bell founder.

When the harmonics of a bell are not correctly tuned, the bell sounds out of tune with itself, even when all the other bells are silent. If this be true, what is the artistic effect of sounding bells together, when none of them are in correct tune with themselves. The average American has never heard anything better than our native chimes composed of native bells whose harmonics are sadly out of tune. Anyone who has ever endured music when it was out of tune knows how supremely important it is to have every note true with itself and in tune with all the other notes.

To correct the lack of appreciation, through ignorance, of carillon music in this country, it is absolutely necessary to have some good carillons where they can be heard. And to have good carillons, or carillons at all—since our native bell founders can not make them—it is necessary to import the bells.

Unfortunately, there is a heavy import duty of 40 per cent upon bells which are brought into this country, since they are classed as musical instruments. This heavy duty will act as a great handicap to the normal development of carillons in this country, and not only will this handicap carillons but such an import duty will virtually strangle one of the finest influences for the general happiness and harmony possible for a community. A carillon hung in a tower, played properly, imparts an atmosphere of contentment and optimism to the thousands of people within a radius of at least a quarter of a mile. The carillons of Belgium and Holland have proven themselves of incalculable worth in respect to national patriotism and morale.

At the present time the Park Avenue Baptist Church of New York desires to import a carillon which will become the largest and finest carillon in the world. Its compass will exceed any other carillon, and will comprise 53 bells. Its largest, or "tenor" bell will sound low E (six semitones lower than the largest bell now in this city), and will be the largest (20,720 pounds) and deepest-toned carillon bell in the world. This church is seeking to create an ideal which will have far-reaching influence throughout our country for a great many years to come.

It is highly important that public sentiment should be aroused to a sufficient degree as to admit this superb carillon, now being made in England free of duty. The cost of this carillon is tremendous. Instead of anything being done to discourage the installation of this carillon—as obviously would occur with a 40 per cent import duty in force—everything should be done to secure for this city the installation of a carillon which would become the Mecca for bell lovers all over the world, and which would contribute a leavening, refining influence upon the lives and characters of millions of our citizens for centuries to come.

If this carillon can be admitted free of duty, installed, heard, appreciated, and loved by our citizens, it may serve as a magnificent example which may in the near future prove of sufficient influence as to secure the repeal of the present import duty upon all carillon bells, in that such bells are not competitive with our native industry, since we are unable to produce them. All who are interested in promoting broad, national culture should interest themselves in this cause on behalf of justice, wisdom, and art.

There was a general discussion of the subject, and much interesting information concerning bells in general and this carillon in particular was elicited. It was stated that the largest bell in the Park Avenue

Baptist Church carillon is 98 inches in diameter and weighs 20,720 pounds, while the smallest is 6¼ inches in diameter and weighs 9 pounds. Attention was also called to the interest which this society has heretofore shown in the subject of bells as evidenced by the references to the bells of Belgium, France and Japan in the society's twenty-fourth annual report to the New York State Legislature in 1919 (pp. 375–376, 391–395). At the conclusion of the discussion the following preamble and resolution were adopted:

Whereas the Park Avenue Baptist Church of New York City, has purchased a carillon of 53 bells which is now being cast in England and which will be the largest carillon in the world; and

Whereas the acquisition of such a group of church bells, besides promoting the religious purposes of the sacred edifice for which they are destined, will make a unique contribution to public education in a rare branch of musical art in the United States; and

Whereas, the Congress has heretofore wisely recognized the exceptional nature and purpose of carillon bells and has remitted the import duty upon them: therefore be it

Resolved, That the American Scenic and Historic Preservation Society very respectfully requests the Congress, in the public interest, to extend similar consideration to the Park Avenue Baptist Church carillon, and to enact a law permitting its admission to this country free of duty.

EXTRACTS FROM GREAT WRITERS ON CARILLONS

Eminent men during three centuries have paid their tribute to the beauty of carillon music and its inspiration to patriots.

The Englishman John Evelyn in his diary, 1641, testifies to the sweetness and harmony of the carillon bells, which so aroused his wonder that he had to visit their tower. Victor Hugo, Thackeray, Hilaire Belloc, William de Morgan, and our own Longfellow have praised the carillon in rhyme and in prose.

Robert Louis Stevenson in his Inland Voyage says of a carillon near the Oise:

There was something very sweet and taking in the air he played, and we thought we had never heard bells speak so intelligently or sing so melodiously as these. * * * There is so often a threatening note, something blatant and metallic in the voice of bells that I believe we have fully more pain than pleasure in hearing them; these as they sounded abroad, now high, now low, now with a plaintive cadence * * * were always moderate and tunable and seemed to fall into the spirit of the still rustic places like the noise of a waterfall. * * * I could have blessed the priest or the heritors, or whosoever may be concerned with such affairs in France, who had left these sweet old bells to gladden the afternoon.

At the carillon congress in Malines, 1922, Hon. William Gorham Rice extolled His Eminence Cardinal Mercier as the savior of carillons in the trying days of the World War. He reminded the carilloneurs that each should return to his tower "with a new sense of opportunity, yes, of duty, to make his carillon, on every occasion and for every hour night and day, an inspiring influence in his community."

Mr. Rice also said:

Those who go out from instruction here and are in future years to make the voice of the most majestic of musical instruments heard, should be fully persuaded of the power residing in carillon music. They should feel that this music can add joy to daily personal occupation; that it can promote a kindly municipal spirit, and that it can awaken and confirm and enlarge true patriotism.

Henrietta M. Rees, in the Sunday Bee, of Omaha, Nebr., in 1922, writes of a carillon concert at Malines as follows:

An old sonata and a remarkable composition by Mr. Denyn were played for us, and we were charmed and mystified and blessed by the silvery clangor that floated to us from the high spire of the cathedral. Every effect of bell music seemed to be achieved.

Walter Damrosch heard the great Josef Denyn play the carillon at Malines in 1922. He wrote:

No words can describe the marvelous effect of the tone vibrations as they seem to melt and mingle with the rays of the evening sun under Denyn's magic touch.

William Gorham Rice, in his "Carillons of Belgium and Holland," thus reports an evening carillon concert at Malines:

Against the southern sky, framed in by two dark trees in the foregound, rose the broad, rugged tower of St. Rombold's. High up, near the top of the tower, from a narrow opening shone out a faint, dull light.

After the bell ceased striking and the vibration of its deep and solemn tone had died away, there was silence. So long a silence it seemed, so absolute, that we wondered if it ever was to be broken. Then pianissimo, from the highest, lightest bells, as if not to startle us, and from far, far above the tower, it seemed—indeed, as if very gently shaken from the sky itself—came trills and runs that were angelic. Rapidly they grew in volume and majesty as they descended the scale until the entire heaven seemed full of music. Seated in the garden we watched the little light in the tower, where we knew the unseen carilloneur sat at his clavier and drew the music from his keys, and yet as we watched and listened, we somehow felt that the music came from somewhere far beyond the tower, far higher than that dim light, and was produced by superhuman hands.

Sometimes in winter, after icicles have formed, there comes a thaw, and one by one they tinkle down gently and timidly at first; then bolder in a mass they come till, like an avalanche, they crash down with a mighty roar. All of this the music suggested. It was low; it was loud; it was from one bell, it was from chords of many bells; it was majestic, it was simple. And every note seemed to fall from above from such heights that the whole land heard its beauty. * * *

It seemed that if we moved or spoke aloud, the tower, the far away light, and the music might all vanish. Nothing we had ever experienced had been like this. Sometimes the sounds were so low that we found ourselves bending forward to hear them. They seemed to come from an infinite distance, so faint and delicate were they. Then at other times, great chords, in the volume of many organs, burst forth rapturously.

Edmond de Amicis in "Holland and its People" tells of a bell concert at Rotterdam, concluding with these words:

Thus in Holland the passing hour sings, as if to distract the mind from sad thoughts of flying time, and its song is of country, faith, and love, floating in harmony above the sordid noises of the earth.

Appendix

SUGGESTED BASIS FOR A REVISION OF THE PRESENT TARIFF LAW ON BELLS

The following details are suggested as a technical basis for a revision of the present tariff law which imposes a duty of 40 per cent upon all imported bells. The objective of such revision is to permit only such bells to enter this country free of duty which are imported especially for carillon purposes, while retaining the import duty on all other classes of imported bells, since the latter can be considered competitive.

It is believed that the following three classifications of bells will control all importations of bells effectively with the above objective in view, and with a minimum of extra trouble to the revenue office. The problem of preventing fraud should prove of no difficulty, since bells are apt to be imported only by churches, educational and public institutions, and public benefactors, from all of whom satisfactory affidavits could be secured concerning the purpose for which such bells are to be used.

Classification I: A carillon must contain a compass of at least two octaves and comprise no less than 23 bells, each of different size and sounding different notes of the chromatic scale. The importation of any shipment of bells conforming to the above definition of a carillon, and which thus may be held to constitute a carillon, shall be admitted free of import duty, providing a satisfactory affidavit is given by responsible parties in this country to the effect that the bells are intended for and will be installed as a single installation in or on one building only, and for one purpose.

Classification II: The importation of any shipment of bells containing less than a total of 23 bells, with the single exception noted and defined under Classification III, shall be permitted only upon the payment of the import duty imposed on bells by the present tariff law.

Classification III: The exception noted under Classification II will properly occur whenever the importation of any shipment of less than 23 bells is intended for carillon purposes, either in augmenting any one existing carillon (as defined under Classification I), or in augmenting any set of bells, already possessed, and in use, in this country, where the addition of the imported bells, comprising this exception, to the bells already in use would form a carillon (as defined under Classification I), and any bells falling within the limits of this exception will be admitted free of import duty, providing a satisfactory affidavit is given by responsible parties in this country to the effect that the bells are intended for and will be installed for such carillon purposes as are defined in this exception.

Theoretical cases showing how the exception noted in Classification III will work out to the general good are suggested as follows:

(*a*) Where a chime of accurately tuned bells already exists, and it is desired to augment their number so as to form a carillon.

(*b*) Where a chime of inaccurately tuned bells already exists, and it is desired to augment their number so as to form a carillon. This would likely be attended with one of the following three courses of action:

First. The inaccurately tuned bells would be recast and returned.

Second. The inaccurately tuned bells would be retained (through ignorance, conservatism, or lack of money) to form part of the carillon.

Third. The inaccurately tuned bells which were retained in the preceding course of action would undoubtedly reveal their poor tone quality and lack of ensemble, or blending quality, and would attract constantly increasing attention and disapproval. And, consequently, public sentiment would sooner or later doubtless effect the solution of the ensemble problem by forcing the recasting and returning of the inaccurately tuned bells. Even when such bells are memorials, there is no particular sentimental objection to their

recasting, since the same metal is used, the same inscription is recast upon the bells while making note of the recasting, and the memorial is thus made more valuable through its improved quality.

(c) Where it is desired to augment a carillon by the addition of one or more bells to provide a wider compass. This constitutes a most important exception to the import duty, since the compass of a carillon should be as wide as possible, thus permitting more variety in the music which can be performed upon it. The expense of augmenting the compass at the lower end of a carillon becomes greater and greater, and these large bells, if they can be added at all, will likely come slowly. It is not too much to prophesy that carillons in the future may include individual bells weighing as much as 50,000 pounds and costing in the neighborhood of $100,000 each. And as the effectiveness of a carillon depends very much upon its compass, especially its lower range, it is important to place no unnecessary obstacles to such additions to any carillon.

SUGGESTION FOR A SUBSIDY, IF NECESSARY, FOR ANY GREAT CARILLON

Personally, I can foresee so much good which will accrue through the establishment of this great carillon, that I should actually advise the United States Government not only to admit a great carillon like this free of import duty but to subsidize it as well, if necessary, in view of its great cost, daring scope, unrivaled international prestige, and far-reaching example in bringing a valuable and wholesome influence to bear upon the morale of the great mass of population concentrated in our great metropolis.

The actual return of such an investment by our Government could never become fully known; but that it would prove within five years to have been one of the best national investments ever made, there can be no doubt.

FREDERICK C. MAYER,
Organist and Choirmaster,
United States Military Academy, West Point, N. Y.

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