JOURNAL OF The Musical Box Society of Great Britain

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# THE MUSIC BOX The Journal of the Musical Box Society of Great Britain

Vol 3 Number 3 AUTUMN, 1967

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### Published by

The Musical Box Society of Great Britain. 11, Devonshire Place, Wimpole Street, LONDON, W. 1. The Editor writes:

Youngsters are always in and out of hot water and our child - this magazine - has had its fair share of tribulations. As I announced at the Annual General Meeting, we had a period of production difficulties prior to the last issue. Our previous printers went into liquidation and things looked a little grim. Arrangements were made with another printer but, unfortunately, after our last number this arrangement broke down and for some long while I was very worried about our publication. Nowever, all has now been resolved and, I hope, we are out of the rapids. This has caused us delays which have been unavoidable and we have to make up some lost time.

More and more interesting material is being unearthed by our Members and in issues to come I shall continue to reproduce original literature which has long since been forgotten and discarded. THE MUSIC BOX, still behaving like a child, grows fatter and larger with every issue so keep those contributions rolling in.

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Hon. Editor: Arthur W.J.G. Ord-Hume,



# THE OLYMPIA

by Jocelyn R. Walker.

HE publication in this journal: Vol. 3, No. 1, (Easter 1967), of the fascinating article by Mr. Hughes Ryder concerning the "Capital" Self-Playing Music Box, and the history and development of the firm of F.G. Otto & Sons of Jersey City, prompts me to give an account of one of their later products; a disc box called "The Olympia". Production of this machine started late in 1898 and continued for only three years. There were three sizes; 8½" discs, the 2000 series, 15.5/8" discs, the 4000 series, and 20½" discs, the 6000 series. In the two larger sizes there were both table and upright models.

My example of this machine is a table model of the middle size and carries the number 9958 on the disc-supporting flange of its centre pivot. It is presented in a particularly handsome polished mahogany case with rich carving and moulding. All the metal fittings are in a bright finish which shows no disposition to tarnish. Mounted in the lid is a coloured print which was also used in the lids of many "Capital Cuff Boxes". These can be seen illustrated in a reproduction of their advertisement in *The Music Box*, Vol. 2, No. 5.

The music is well set up on 15.5/8" discs having clock-wise, rim drive; a cog-wheel acting on square holes whose forward edge is reinforced by curling back the cut-out metal. Each playing projection is also supported by a right-angle cut standing behind it. The discs are named on both sides and carry an elegant picture. They are covered with a grey protective lacquer. Typical numbers of my discs (being for the 4000 series machine) are 4001 "The Star Spangled Banner" and 4416 "The Holy City". There are two combs of 77 teeth each. A speed regulator is provided.

The tone of this box is ravishing, having a separation of the melody from its harmony and decorative figuration which renders it a really "musical" box. Advertisers today make extravagant claims for the superiority of their products over those of their competitors, but few with half as much justification as had F.G. Otto & Sons when launching this box. I exhibited it at the June meeting when members were able to judge for themselves the truth of the makers' boast in their advertisement of 1899 that there was no "just as good" as The Olympia.

Reigate, April 1967.





# THE BRITISH PIANO MUSEUM

The following communication has been received from Mr. F.W. Holland, Curator of The British Piano Museum of 368, High St. Brentford, Middlesex.

### GRANT FOR BUYING INSTRUMENTS

The urgent need for an annual grant has arisen again after I applied to the Town Clerk of Hounslow on 8th December 1966 for financial assistance for the purchase from the continent of a rare Orchestrion with an automatic roll changing mechanism.

This request was made as a result of a letter from the Victoria and Albert Museum indicating that they would consider making a 50% grant towards such a purchase if the museum were already in receipt of a grant from the Local Borough Council. A few days after receiving the Town Clerk's acknowledgement of my letter, I was notified that the Orchestrion had been sold.

If this country is to acquire rare instruments of this kind, much quicker action by the authorities concerned is clearly needed. Prices of these instruments are soaring, and five of the best examples have recently been shipped to America. Soon there will be none of the better ones left in Europe.

Because of the generosity of our staunchest benefactor (a private individual) we have been able to acquire - and are now restoring a fine and rare Welte Philharmonic Organ, together with 90 music rolls recorded by the masters of the period. This would almost certainly have gone to the States but for the kindness of the late owner, and the help of the benefactor who bought it for the museum. But this benefactor cannot, of course, be expected to help us continually on such a scale.

The Museum is offered from time to time rare and wonderful instruments, but these are

constantly being lost because of lack of funds. I have appealed also to The Arts Council. The Standing Commission on Museums and Art Galleries, to the Department of Education and Science and to well-known. Trusts, as well as to firms and to private individuals, but the response has been very disappointing.

I am told that there is a lack of financial support because the Museum is housed in temporary premises. But had I waited for a permanent home for the collection, it could never have been acquired in the first place and by now assembled. As it is, I have created a National asset and have much to offer the public who visit the museum in gratifyingly increasing numbers to view the automatic pianos and violins, orchestrions, nickelodeons, organs, music boxes, barrel pianos etc.

### THE MUSEUM PAYS ITS WAY

The museum is established, it is open to the public, is now beginning to pay its way, and is a national asset. Briefly the ennual running figures are:

1963/4	-£275.	10,	8
1964/5	-£175.	15.	2
1965/6	<b>£</b> 96.	14.	0
1966/7	<b>-£</b> 31.	15.	8.

### FUTURE MAINTENANCE

In accordance with recommendations by The Council for the Care of Churches, I have formed a Trust which is registered as a Charity (No. 242341) and I expected that this would qualify the collection for one of the redundant churches being permanently preserved - and so provide an admirable use for it: Nevertheless, having arranged the Trust Deed - with the full approval of the Department of Education and Science and the



Frank W. Holland of the British Plano Museum with some of the rare exhibits.

Inland Revenue - I now find that such a building cannot be placed in my care until further conditions about the provision of funds for maintenance have been met. The position is therefore fast becoming a vicious circle, as it seems impossible to have one without first having the other.

My small band of faithful supporters and I have received a tremendous amount of moral support both in the press and elsewhere - but what is needed now is practical help for maintenance. If it is not forthcoming soon, then these small numbers of irreplaceable instruments will almost certainly be lost to us for ever.

I am asking therefore that you might be so kind as to consider offering annual assistance to the Museum, or making a grant at this particular period which we are finding so difficult. The collection is available for inspection by appointment at any suitable time when I should be most happy to explain its significance and importance more fully.

Information from any quarter about suitable accommodation for the future use of the Museum would be very welcome.

# **MINIATURE MUSICAL MOVEMENTS**

### By C.W. Bruce

WISICAL snuff boxes have a wide following amongst collectors of musical boxes. They were produced over quite a long period in the history of the musical box and usually represent the epitome of the art of the miniature musical movement maker, so often allied to the skills of the watchmaker.

Forming a collection of these diminutive musical boxes can be of great interest. There were many makers, some well-known and others much less known or even identifiable. Snuff boxes are not easily found today and, in my experience, have always been difficult to obtain.

I have just been reading a reference to them in the late Mr. Clark's last book, and here it is stated that they were produced in large numbers at the period. However, it would seem that most have disappeared in the intervening years. Being small, one can imagine that they were given to children to amuse them after their initial value had passed. Thus becoming damaged or broken, they were then thrown away. I have not seen any offered for sale for many years and they are no doubt commanding a high price today when they do come along. Even in the earlier days of collecting, they were considered expensive. It is surprising how well the melodies are played and, indeed, the often superb performances can equal the larger normal size musical boxes. Many have two airs, but some scarcer ones have three whilst very rare ones play four airs. Do not confuse the reference to these miniatures with the modern small movements which have an average of 18-20 teeth in the comb and very few pins in the cylinder which is about one inch long.

The miniature snuff boxes were of fine craftsmanship and the music quite astounding, so often being pinned with variations on a theme and some rare ones with the bell music effect. According to a note in Mr. Clark's book, these miniatures were made between 1820 and 1860 and were made in tortoiseshelf or black horn boxes. Many featured a small gold tablet or shield on the lid intended for the owners initials to be engraved thereon. The average size is  $3^{42}$  inches long,  $2^{44}$ inches across by 1 inch deep, although I have one which is the smallest I have ever seen it is  $2^{34}$  inches in length,  $1^{34}$  inches across and 7/8 inch deep which is just a little larger than a match box.

Some in my collection have a fine quality coloured picture on the lid covered by some transparency, probably a varnish. One in particular is a coloured engraving of the famous picture by Sir David Wilkie, R.A. (1785-1841) called "Rent Day" and the box is in green tortoiseshell. This box, like several others, has its original leather box container and these containers are often silk lined. Another has a reproduction in fine colours of the famous painting of Madame Recamier, the original of which is, I believe, in the Louvre, Paris.

Many boxes were produced in plain black horn but others have embossed scenes in this black horn and depict Napoleon giving honours to his soldiers, various floral motifs, Louis XV and Louis XVI-period, Palais de l'Industries, 'Factories of Canton' &c. Ť rather think that these were made for one of the Paris World's Fairs held in 1855, 1867. 1878, 1889 and 1900. The melodies the snuff boxes play are usually French folk tunes and dances and sometimes music by Mozart - also church music with variations. The strength of the music is amazing and best rendered by placing the box on a piece of thick plate glass or over the rim of a squat glass tumbler.

The makers of many of these boxes are well known, such as Bordier, D. Lecoultre, F. Nicole, but others are by makers generally unknown such as FIRA (?), WERA, MELLY & CIE of Geneva, I.S.B., ALIBERT. By the way, the Bordier movement is one of the finest, yet, strange to relate, the boxes are very poor, usually of tin (some plain painted or with a picture on the lid).

Referring to the movements of these early boxes, the barrels are often 21/2 to 2.5/8 inches long and very closely pinned. The combs usually have between 64 and 92 teeth also closely spaced. Most of these boxes have a second lid on one oblong side in which the key can be kept. The keys themselves vary in size for boxes and are numbered in accordance with normal watch-keys from one

to twelve. The interior of the boxes has a transparent (or semi-transparent) amber-colour 'tray', probably of horn, to hold the snuff which at the same time keeps dust from reaching the musical movement beneath.

The result of this protection is that it has preserved these boxes from interference (unlike the larger musical boxes) and they play perfectly. The only access to the actual movement requires the removal of several very minute screws.

The various boxes discussed herein being in tortoiseshell or black horn are quite different from the miniature snuff musicals in gold. silver or enamels. These latter are another subject upon which one could write at length since their history and varying types are a most involved study.

Musical snuff-box made by Alibert having a sectional comb movement and playing two tunes. The lid is decorated with a finely executed painting and the box is of tortoiseshell. The front of the box has two buttons, that on the left is the stop-start, the right one is the change-repeat. (C. de Vere Green collection)

### THE APOLLONICON

\* SIR,—In No. 6 of *The Organ* (Vol. II., page 74) there is an interesting contribution by Mr. R. Meyrick-Roberts, entitled "The Founders of Modern Organ Building." He tells us very truly, "Two centuries and a half ago there were to be found in Germany and in Holland large organs with many stops, three or four manuals, pedals, &c.; but in England at that period things were otherwise...The instrument as we know it is the outcome of the thoughts, ideas, invention, &c., of scores, probably of hundreds of men who have devoted themselves to the art of organ building." He shows how some of the most useful modern inventions have been invented and developed in England. He shows how from very primitive machines we have developed on scientific lines instruments of high perfection.

He goes on with his list, which is in a manner a species of archaeological table of information, bringing us to times most recent. Among the experiments in advance there was built an instrument called the Apollonicon. The builders were Messrs. Flight & Robson. In my early youth I heard it played at the Colosseum in Regent's Park. It must, I imagine, have been especially planned as an orchestral instrument with many imitative stops. It was used to accompany the exhibition of the panorama of "The Earthquake of Lisbon." The organ was not visible. First, very pleasant music prepared the audience for raising the curtain. Calmness and repose. We saw the bosom of the Tagus and a lovely sunrise. Calamity was far off. The sky began to darken, the music changed and its quality became agitated. At last a horrible black darkness closed in upon us. We and the whole building trembled, the Apollonicon screamed, raved and bellowed. The music changed and became more comforting, the light increased, and we saw before us the terrible picture of Lisbon in ruins. Whilst this miscrable scene was still before us the music was skilfully changed in its quality : a calm was spread over the audience and there was conveyed to the mind that strange sense that, while poor little mankind may be utterly overthrown, the great calm of Nature resumes its sway. It is evident that the Apollonicon made a deep impression on me, which I retain to this day.

What type of instrument was this Apollonicon, did it develop into anything, where is it now? It must have been a large instrument with considerable resources. In *The Encyclopadia Britannica*, the word "Apollonicon" may be found in the index. We are referred to Vol. XXII., page 960: we find nothing about it. It is under the heading of harmonium, an instrument it certainly was not. SOMERS CLARKE.

Cairo, Egypt, Oct. 22, 1922.

SIR,—Mr. Somers Clarke asks in Vol. II, No. 7, "What type of instrument was this Apollonicon, did it develop into anything, where is it now?" "The Apollonicon was built by Messrs. Flight & Robson in 1817 in their rooms at St. Martin's Lane at a cost of  $\pounds$ 10,000. It could be played on by six organists at once, and its six keyboards were so arranged that the players faced the audience. Fétis, who heard Samuel Wesley play on it in 1829, describes it as the best organ he had heard in England, and says that the builders had used in it certain contrivances unknown before. It was also provided with barrels which played overtures and symphonics, and changed the stops where necessary. Failing, however, to attract the public, it was taken down in 1840 and its materials were used for other organs."

I quote the above from my "Story of the Organ," published in 1903. From Mr. Somers Clarke's letter it would seem that previous to dispersal the instrument was removed from St. Martin's Lane to the Colosseum in Regent's Park,

About ten years ago I visited on an archæological expedition the village church of Boldre, in the New Forest. There I found an organ of two manuals, straight pedals, and sixteen sounding stops, bearing on a brass plate the following inscription: "Apollonicon Rooms. 101 St. Martin's Lane. Thomas Robson, Organbuilder to Her Majesty." Another brass plate showed that "This Organ was presented by Charles Shrubb on the occasion of the Restoration of the church in 1855." There follow the names of the incumbent and churchwardens. I fancy that this organ must be one of those "other organs" for which the materials of the Apollonicon were used. Before sending this letter I re-visited Boldre Church and found the organ still there.

Flight & Robson dissolved partnership in 1832, and Flight died in 1847. Robson was evidently still working at the Apollonicon Rooms in 1855.

Milford, Lymington, January 31, 1923.

C. F. ABDY WILLIAMS.

The Tinafore Quadrille Nº 1. Sullivan 1. 2. id. i. i. 2. i. id. 3. iv. D. 3. W. id. w. D.4, w. 4. exits. i. w. 5. æ. id. 5 i. We Sail the Ocean blue. i. ERHES 6. id. Menuetto. w. 7. i. Ring forth se bells, Chrous. w. EN ACIE

# TORTOISESHELL REPAIRS

X

by David A.R. Tallis.

ORTOISESHELL comes from the hawksbill turtle for which it forms the protective covering for its back. It grows as plates which overlap each other to one third of their total area. The plates are arranged with a line of five down the centre of the back, with four either side of the centre-line, each turtle having 13 plates in all.

Its advantage over horn is that tortoiseshell can be brought to a much higher polish and is naturally decorated in a wide range of colours and patternings. It can be worked in the same way as hom but requires greater skill since it is more brittle. Under the influence of heat up to about 150°F. tortoiseshell can be bent to shape quite readily but, if the temperature is raised too much, its basic structure can be attacked and the shell will start to swell, crack and split. At even higher temperatures the shell will char. It is an amorphous material and can thus crack in any direction but, if it is viewed by holding it up to the light, or in reflected light, it is possible to see lines indicating its rate of growth. Only one adhesive has proved practical with tortoiseshell - Araldite.

### TO POLISH SHELL

Use medium wet/dry paper with water and sand down until the surface is flat. If adhesive has been used, rub until all signs of the Araldite have been removed. Scratches left by the first treatment are removed by using fine wet/dry paper. Now apply pink burnishing paste with a soft cloth, rubbing in the direction of the previous polishing until all roughness disappears. Polish with a dry duster but, if scratches still show, repeat the treatment with fine paper. To re-polish dulled shell, you can use metal polish such as Brasso.

### TORTOISESHELL REPAIRS

A crack. Force the crack apart and insert Araldite with a modelling knife or small spatula. Hold the crack shut with an elastic band and allow it to set - on a radiator if available. When hard clean off and polish.

Joining a break. Clean the pieces, but be careful to preserve the profile. Apply a minimum of Araldite to both surfaces, making sure all of each surface is coated. Press the pieces together and leave on a radiator to set. Constantly check the joint for position until it can support itself. When hard, clean off and polish

Missing piece. Make the profile of the missing area easy to match. If possible make it a straight line or a simple curve. Look at the patterning and select a piece of shell which matches it as nearly as possbile. Cut the piece to the profile with a metal fret saw, but keep the piece oversize. File away by small degrees until the piece fits snugly. Do this by holding the piece in place and filing only at points of contact until the contact is complete. Keep open side proud to avoid any chance of the piece ending up too small. Stick in the piece, allow it to set thoroughly, sand down level and then polish.

### USEFUL TIPS

If angular or curved pieces are to be joined, the adhesive will be sufficient on its own. If the join is straight and unsupported, it is better to peg the pieces with short lengths of shell dowel. Whenever possible, fill a gap with shell - Araldite will show although it can be disguised by the addition of a little lamp black. Tortoiseshell can be welded by pressure under steam heat. When remaking an old join, clean off all traces of the old adhesive first. You can impart a good shine on to tortoiseshell using the palm of your hand.



The "Pinafore" Musical Box - a box devoted to Gilbert and Sullivan's popular music. Tune sheet is lithographed in fugitive blue ink on cream card, and comes from the Graham Webb collection.

# THE PERFECTION



by Hughes Ryder New Jersey

N the history of American-made musical boxes, there are several interesting chapters which have yet to be researched thoroughly and written about, and since the moving brush of time will soon cover this data, it well behooves us forthwith to put down such morsels of information that we possess as collectors, incomplete as they may be, before they are gone for ever.

The giants of the musical box industry in the United States such as Regina, Symphonion and F.G. Otto (maker of the Capital, Criterion and Olympia), with their large productive capacity and merchandising ability, have all but obscured the efforts of other smaller firms who entered into this field in the 1890's.

To enter this mushrooming market would have been an exceedingly difficult thing to do, for the giants had patented nearly every worthwhile mechanical feature, leaving to the newcomer the necessity of coming up with some odd or novel feature in order to avoid infringing existing patents and designs.

Production costs were a tremendous factor and one of the major items of disc box manufacture was the damper assembly. The elimination of damper assemblies and the reduction of costs, including final adjustments of the dampers, could thus conceivably enable a new manufacturer to be competitive.

Across the Hudson River from New York City lay the embryonic music box centre of the United States - Jersey City, New Jersey. Here, where Regime had started, and where Capital and Criterion were being produced, there was, naturally a nucleus of skilled artisans to work with.

The Regina and Criterion disc boxes were in production by 1895-1896 and making steady advances in sales when, in January of 1897, U.S. Patent No. 585, 246 was granted to a Julius Wellner of Jersey City for a new damping arrangement whereby the entire damper assembly was eliminated, and substituted by a novel method of dampering the teeth of the comb by means of a felt pad inserted in the centre of each star-wheel. The star wheel, instead of being solid, was made up of two thin star-shaped metal pieces pressed together with the piece of felt in the middle, with the star point of each side piece meeting to form the striking point for the comb teeth. Thus, as the tune disc projections turned the star wheel, the felt insert would damp the comb tooth just prior to the star wheel point striking it. It was a devastatingly impractical method as time was to bear out wegin en detable de la



### J. WELLNER. MECHANICAL MUSICAL INSTRUMENT.

No. 585,246.

Patented June 29, 1897.









FagA.

Pades.

WITNESSES: Sw. V. Kaylor-

INVENTOR BY the ATTORNEY





FACTORY IN

PERFECTION DISC

At any rate, the year 1897 saw the start of the Perfection Music Box Company in Jersey City with the factory situated on Columbia Road at the corner of Lincoln Street (Fig. 1). The building is still standing although now used for other purposes of course. The firm produced Perfection Music Boxes here during the years 1898-1899, then in early 1900 moved to the neighboring city of Newark where it continued until 1901 employing about 32 persons in the production of the "Perfection". Industry records list the president of the company as a Mr. Theodore J. Gerth.

The "Perfection" musical unit was placed in simple oak and mahogany cases not unlike the Regina, and had an interesting picture placed on the inside of the top lid. The movement itself was a conventional double comb unit with 55 teeth on each of the two combs, the 28th or middle tooth cut short and not sounding due to the disc support washer inserted at this point instead of a star wheel. Each comb measured 5.5/8" long and 1.7/8" wide with teeth cut 10 to an inch which





### SPRING AND GOVERNOR ASSEMBLY

would make them slightly farther apart than the  $15\%^2$  Regina whose comb teeth were cut 10 to each 3/4 of an inch.

The beciplate had a slightly unusual appearance, for although on the left hand

side it was screwed down to wooden blocks fastened to the side of the case, on the right hand side, the bedplate was formed in an "L" shape and the upper perpendicular part was fastened to the side of the case above the level of the bedplate itself. This novel





This article originally appeared in the Bulletin of the Musical Box Society International of America to whom we offer grateful acknowledgement for permission to re-publish.

### CLOSE-UP OF STAR WHITELS

arrangement had the advantage of allowing more room on the underside of the bedplate for the motor spring casing and the governor which was curiously set at a 60 degree angle. The disc was driven peripherially by a drive gear with rectangular teeth, the drive holes in the zinc disc being rectangular in shape to accept the driving teeth.

In viewing the star wheel assembly, we see the whole reason of being for this unique machine. Here are the star wheels with their centre of feit, the felt having been pressed between the two halves of each single star wheel, and then all being assembled into the star wheel unit. As one might easily have guessed by now, this damping arrangement might possibly have-lowered original manufacturing costs but, once the felt wore out, the owner was in serious trouble, for either the whole star wheel assembly had to be replaced or prohibitively repaired, or the squeaking, shrieking damped box consigned to oblivion. A truly sad end for a musical box that was supposed to be, if nothing else - PERFECTION !!

# Mandolin Boxes by Robert Burnett

J N a letter to The Music Box for Easter, 1965 (Vol. 2, No. 1, Page 30) I made some comments about different types of mandolin boxes. In the light of subsequent experience, I should like, now, to add to what I said then.

In my previous letter I pointed out that some boxes described as mandolin deserve the term more than others, and I suggested that the only boxes fully meriting the term are the very rare ones with about 200 teeth in the comb. Only with this number are there sufficient teeth tuned to each note in the treble - eight - to allow a single note of the melody to be sounded continuously for an indefinite period. With a smaller number of teeth, the mandolin effect is limited to a short burst of repeated notes at the start of a given note. Where the melody moves fairly quickly and the notes are of short duration, the difference between a full mandolin box and one of this type is no longer apparent.

I think that boxes of the latter type might strictly be termed partial mandolin boxes.

I have recently come across two boxes with only about 100 teeth in the comb, but which can, nevertheless, sound a melodic note with mandolin effect indefinitely. This is achieved by repeating the notes of the melody at about half the speed of most mandolin boxes. Normally, the melodic notes in mandolin boxes are repeated about 12 times a second. In these two boxes the speed is reduced to about six times a second. At this rate, four teeth tuned to each note in the treble are enough to allow the first of the group to be sounded again immediately after the last has been sounded and, thus, to give an indefinite repetition of a given note.

The tune-sheet of one of these boxes bears the inscription "Guitar Tremolo Zither", but I would suggest that boxes of this type might more accurately be described as slow mandolin boxes.

The general effect is very different from that of the more usual mandolin boxes, but pleasing and where, as in the box I have, the setting is skillful and a rapid mandolin effect is interspersed from time to time for some of the notes of short duration, the effect is very nearly as good as in a full mandolin box.

To sum up, then, I would say that mandolin boxes can be divided into three types: Full Mandolin Boxes with some 200 teeth in the comb and capable of sounding a melodic note rapidly and indefinitely.

Partial Mandolin Boxes with fewer teeth in the comb and limited in their mandolin effect to a burst of rapidly repeated notes at the start of a melodic note.

Slow Mandolin Boxes in which the notes of the melody can be sounded indefinitely, but are only repeated at about half the normal speed.

In my experience, the partial mandolin boxes are by far the most common and the full mandolin boxes the rarest.

## Classified Advertisements

Rates: 3d. per word (Bold type 6d. per word). Box numbers are not permitted. \*Display and semi-display rates are available on request.

For Sale or Exchange: 11" Polyphon Discs. H.M. Miles, 329, Rednal Road, Birmingham, 30. 'Phone 021-458-1100

Acolian Orchestrelle rolls for exchange - sorry, no sale. Send for list. Ord-Hume, Lake, Isle of Wight.

When in Dorset, Ron Bayford of 10, Oakley Road, Wimborne, will welcome showing you his collection of Musical Boxes and Disc Machines. He usually has a few for sale, and will also buy if in as good condition as his own.

### WANTED

Wanted. Pen-pal who is interested in antiques as well as musical items. Home or overseas.

Josephine Wadmore, 70, London Road, Tunbridge Wells. Kent. England.

WANTED urgently for new museum, between 30 and 40 additional cylinder and disc music boxes and mechanical music makers of any description. (Singing birds, barrelorgans, etc.) Please detail price required, enclose photograph, and nominate condition of case and mechanics. We will buy in perfect condition or needing repairs. Bryan Jackson's Museum of Sound-Technology, 228 Marva Rd., Mt. Wellington, Auckland 6, New Zealand.

Wanted Urgently. Will those Members who promised faithfully to loan your Editor musical box catalogues and advertisements for reproduction in THE MUSIC BOX please make these available as soon as possible. The Editor, THE MUSIC BOX, 11, Devonshire Place, Wimpole Street, London, W.1. HE Summer meeting and Annual General Meeting of the Society was held at the Great Westem Royal Hotel, London, on Saturday and Sunday, June 3rd and 4th, 1967. Among overseas Members present we were delighted to welcome Mr. & Mrs. Bratley from Rhodesia, and to meet again Helen and Howard Fitch and Francis and Hughes Ryder from America.

The morning session began with a comprehensively illustrated lecture by Howard Fitch on the Jaquet-Droz family. He traced the lineage of this illustrious name in the field of timepieces and automata, showing many fine colour slides of their products.

# SOCIETY MEETING

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The business meeting followed lunch, Secretary Cyril de Vere Green seporting on the successful growth and development of our Society. Treasurer David Tallis, in presenting his balance sheet, showed that our funds in the past year had increased by almost £100 to £375.6.1d. Editor Arthur Ord-Hume announcing the publication of the Summer issue of the Journal that afternoon, stated that there had been a production crisis following the liquidation of our old printers, Data Sift, but temporary arrangements had been made to get the issue out on time.

The existing Committee was re-elected, there being no other nominations. Member Bill Nevard of the Committee is also in charge of advertising for both the Journal and the forth coming Directory.

Philip Coole, keeper of the Ilbert collection of timepieces at the British Museum delivered the afternoon paper which was on the subject of early mechanical music. Illustrated with a large number of slides, Mr. Coole traced this form of music back much further than many of us appreciated. His fascinating paper, in slightly abbreviated form, appears elsewhere in this issue.

Many Members brought boxes for exhibition, demonstration and sale, and the active participation of so many Members itself added to the success of our meeting. As last year, a musical box was raffled - this time a small snuff box - to aid Society funds. The evening saw the staging of the first.ever Society dinner. This was very well supported in spite of having got off to a slow, start in the planning stages.

Several Members, unable to join us earlier, were present for the dinner and among these was our guest speaker, Mr. David Nixon, and his wife. Other distinguished guests included Mr. Frank W. Holland, curator of the British Piano Museum, and Dr. Norman Burroughs.

David Nixon, in a most entertaining speech to welcome the guests, described his interest in musical boxes. Dr. Burroughs, in responding for the guests, matched the wit of the first speaker, relating that his only connection with musical boxes was that he had a room under Mr. de Vere Green's surgery and he was thus exposed to their music all day!

As is usual in the relaxed atmosphere of a friendly dinner, one tends to learn more about musical boxes than during the planned sessions and throughout the evening knots of Members were to be found eagerly discussing some point.

The Sunday morning session was a practical meeting divided into two parts. The first was a discussion on the dismantling, cleaning and regulating of disc-playing musical boxes. Under the chairmanship of Mr. Arthur Ord-Hume, a panel of experts answered questions on the steps described.

The second part comprised a number of running demonstrations concerning musical movement overhaul. Cyril de Vere Green demonstrated snuff-box comb dampering, Robert Burnett showed how to strip, clean and re-assemble a snuff-box movement, David Tallis demonstrated his remarkable skill in tortoiseshell repairs (covered elsewhere in this issue), Graham Webb stripped and cleaned a cylinder and Cliff Burnett cleaned a case.

The meeting closed after lunch. It has been arranged that the next meeting of the Society will take place on November 4th, 1967, at the Great Western Royal Hotel, Paddington, London. Details of this will be circulated to all Members in due course



203 3280 Carnaval Stilder Valse Hosinonique 1 Carnaval Hölder Halse No=1 2 ha Dame Blanche, Tiens gentille Dame 3 ha Fregata Feneziano, Hottinno 4 ha flätt enchantée Ho=11 Dro 5 führmens Wazuska 6 Le Chalet, Chant de nos monragnes, 7 Aida Sessetto, Hieni a Diletta 8 Gine Dell, Briese du Soix, 9 Joni Polka 10 Don Giovani Ho=8 11 Stanestree Ho=4 12 ha Venve du DHalas (18)

Weill & Harburg produced this interesting tune sheet in rich colours. Seen by Member Graham Webb on a Harpe Harmonique box. Note the "W. & H." monogram.

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### The only musical box with undestroyable Dampers



The card reproduced above comes from one of the most unusual of the later period of musical boxes ever produced. Cuendet-Develay, Fils et Cie of Switzerland took out certain patents in the year 1891 aimed at making a musical box of really rugged construction which would defy almost all attempts, accidental and otherwise, to break it. Their main patent concerned the damping of comb teeth in cylinder musical boxes and, to this end, they employed the method used to damp the teeth in disc-playing instruments. A separate fork-shaped damper was made for each tooth and soldered into a metal strip screwed to the bedplate so that each damper stood vertically and engaged with the teeth. Each cylinder was made to play only one tune and its pins were like small nails. As the cylinder pin came round, it pushed a shoulder on the damper which pressed the end of the damper on to the tooth before

### plucking.

The firm also produced several other 'improvements', among them a capstan winding system so that all one had to do was to push the winding wheel forward in the case using any one of its six or eight handles. Cylinder changing was similarly robust and simple.

For the fortunate owner of the box, each new tune necessitated the purchase of a new cylinder, the only consolation being the wording of the label under the lid in place of the tune sheet (reproduced above) which proclaimed "Patent Undestroyable Dampers". The example from which the label came is the property of Member Graham Webb - and has several of its undestroyable dampers destroyed . . . It is hoped to publish a picture of the complete box at an early date.

For the benefit of the growing number of player piano enthusiasts who are Members of the Society, we re-print here a scarce manual published c. 1920 by the Aeolian Company. It is interesting to note that, although the era of the player piano is far less removed from us than that of the musical box, much of the original literature is now lost and is as sought after as, say, the Symphonion catalogue which will be reprinted inour next issue. The original for this Aeolian manual (right) has been loaned by Mr. Norman Evans to whom we offer our sincere appreciation for his kind assistance.



# ON PLAYING THE 'PIANOLA'

### AND THE

# 'DUO-ART' 'PIANOLA' PIANO

# With directions for using the special 'Pianola' Practice Roll

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THE AFOLIAN COMPANY, LTD., 135-6-7 New Bond Street, W.I

This Booklet and the Roll to which it refers have been approved by the

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HONORARY ADVISORY COMMITTEE

### ON THE

### EDUCATIONAL USE OF PIANO-PLAYER ROLLS

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## CHAPTER I

## ON

## PLAYING THE 'PIANOLA'

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# On Playing the 'Pianola'

N view of the statement that 'a child can play it,' the following instructions may seem unnecessary. It may, therefore, be well to explain the apparent paradox of an instrument so simple that a child can certainly produce quite musical results without previous knowledge or practice, yet so vast in its potential power for the interpretation of music that not one of the so-called demonstrators of the instrument can be said to have reached the limit of its possibilities—just as it is impossible to say that even the greatest pianist has ever acquired complete mastery over the resources of the Pianoforte.

The truth of the matter is that, with the 'Pianola,' a child can instantly produce the most brilliant technical passages with a clearness, equality and faultlessness beyond the power of the most eminent virtuoso, and if the composition depends almost exclusively upon brilliant technique for its effectiveness then the child will succeed in giving a performance in which the shortcomings in expression may be outweighed by the amazing execution; but, before sentiment can be adequately expressed, the 'Pianola' player will need much practice to acquire quality and variety of touch, the power to bring about subtle and sudden changes of *tempo*, prominence of the melody, a nicely balanced accompaniment, and skill in the use of the levers for actuating the soft and sustaining pedals of the Pianoforte.

### Reading the Rolls.

It will be found necessary, and is fortunately easy, to be able to read and understand the perforations in the music rolls sufficiently well to know what to expect before the notes are actually played. This form of notation may be regarded as a visual representation of music as played upon the Pianoforte keyboard, for the perforations are in precisely their proper telative positions of pitch, their length in the roll indicates their duration of sound (apart from the effect of the sustaining pedal), and the distance at which they follow each other across the "Tracker-bar' will determine their rhythmical spacing, which in almost all ' Pianola' rolls will be found to be in exact accordance with the time value of the notes in the printed music.

### Position at the Instrument.

Before attempting to play the 'Pianola,' obtain a suitable seat. This should not be less than zz inches high, preferably with the top slanting from a height of  $z_{3\frac{1}{2}}$  inches at the back to  $zz_{2\frac{1}{2}}$ inches at the front. Such seats are, of course, obtainable from all Agents. Place the feet upon the treadles of the 'Pianola,' with the toes slightly projecting over the top ends and the heels not



above the centres. Sit sufficiently far from the instrument to avoid any uncomfortable bending back of the feet when the treadles are in their normal position, because it is important that these should completely return after each stroke and not be kept partially depressed all the time.

The Duties of the Feet.

As the 'touch' of the 'Pianola' is controlled by the feet, each foot must be trained to act independently of the other, in somewhat the same way as a pianist's hands are trained, but with this difference, that for 'Pianola' playing one foot should be practically exclusively prepared for melody playing, accentuation and phrasing, the other foot serving as an auxiliary, to provide sufficient reserve power, and also to play the accompaniment, and any passages in which general modulation of tone is more important than subtle phrasing.

Both treadles acting equally throughout the entire compass of the instrument, it does not matter whether the right or left foot is used for the more important portion of the touch, but it is best to use for this purpose the foot which happens to be the more active, if the feet are not equal in strength and agility. If the heel of the accentuating foot be raised, the thrust of the toe can be quicker and stronger; while for the other foot, a smooth ankle movement is usually best.

This different action of the two feet will be almost always desirable, but sometimes (when no melodic phrasing or accentuation is required) it may be found convenient to use both feet equally. More rarely, there will occur cases in which two or more strong accents follow in rapid succession, making it necessary to use the feet alternately for accentuation.

### Amount of Power.

Although for a single accent all possible power can be used without obtaining more tone than is sometimes needed, one must carefully avoid too much continuous force, for this is capable of being not only greater than a pianist could produce, but also much more than is desirable. The two most noticeable cases in which this fault is likely to occur will be found in rapid successions of chords, and in brilliant passages, particularly if the latter are in the upper treble. It should be remembered that the moment a strong accent has been made the pressure should be released by *botb* feet, unless another accent is required immediately, otherwise the following notes will probably be too loud, and unnecessary energy will be expended. There is nearly always sufficient reserve power left in the instrument, after accenting strongly, to play several notes without any further movement of the treadles.

Very light rapidly alternating foot work is best for obtaining extremely soft effects of touch, especially if the passages are rapid, or if there are quick repetitions of the same note, or chord,

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whereas when more tone is desirable a longer stroke can be taken, though it should seldom be more than half the available movement of the treadles, while the *accentuating foot* should make the shortest stroke with which the effect can be obtained.



C-Bass Subduing Lever ) or Graduated Accompaniment Levers. D-Treble Subduing Lever ) or Graduated Accompaniment Levers. E-Soft Pedal Lever. F-Sustaining Pedal Lever.

The 'Tempo Lever'(A) controls the speed at which the paper passes over the 'Tracker-bar' (see illustration on page II). To stop the roll for a 'pause,' this Lever must be placed over to the *left* as far as possible, whereas the further to the *right* it is moved the more rapid will be the *tempo*.

The 'Gear Lever' (B) merely engages the driving gear for rolling the paper from one spool to the other. When placed to the *right* it will cause the 'Take-up Spool' to revolve, thus drawing the paper downwards across the 'Tracker-bar.' By placing this Lever to the *left* the gear is reversed so that the top spindle is now revolved, for re-rolling the paper back on. to its own spool.

If the instrument is provided with the 'Silent' device, this 'Gear Lever,' when placed centrally, will enable the paper to be

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moved rapidly over the 'Tracker-bar' on to the 'Take-up Spool' without allowing the notes to sound; thus sections of the rolls can be omitted at will.

The two 'Subduing Levers' (C & D) modify respectively the power of the Bass and Treble portions of the instrument. The upper or backmost Lever controls the Bass section (up to and including the E flat nearest to the middle of the keyboard); the lower or frontmost Lever controls the Treble section (from the next note, E natural, up to the highest note of the instrument). When these Levers are held over to the extreme kft, variations of foot pressure should have no appreciable effect upon the power of the notes, *unless these are* '*Themodised*,' i.e., provided with special marginal perforations (which always appear in *pairs* on the right, or left, edge of the paper), in which case these 'themodised' notes are independent of the action of the 'Subduing Levers' and can be varied in power by the action of the feet.

The 'Soft Pedal Lever' and 'Sustaining Pedal Lever' (E & F) merely take the place of the usual two Pedals of the Pianoforte, and act upon the instrument in precisely the same manner. the *former* reducing the amount of tone, the *latter* removing the dampers from the strings, thus causing the sounds to be sustained so long as the Lever is held over to the right.

The 'Tempo Lever' should be held *lightly* and freely between the thumb and forefinger of the right hand.

The 'Subduing Levers' can, in most cases, be used by the thumb of the left hand, enabling the middle finger to be used for the sustaining pedal, with the forefinger available for the soft pedal. But should the isolation of individual notes (not already 'Themodised') be desired, it may be found necessary to use the thumb upon the lever for subduing the treble, and the forefinger upon the lever for subduing the bass, in which case the sustaining pedal must be controlled by the little finger. When this form of manipulation is required it will be best to turn the left wrist and elbow outwards; the forefinger can then be released while the thumb is held back, or vice versa.



D-Tempo Indicator. B-Iracker-bar. C-Iake-up Spool. D-Tempo Indicator. E-Lever for Automatic Sustaining Pedal. F-Metrostyle Pointer.

### Placing the Roll in Position.

Keeping the 'Gear Lever' at the left, as for re-rolling, place the roll in position between the metal holders, making sure that the flange of the right-hand holder goes into the groove in the spool end. To make certain of this it is advisable to press a finger upon the right-hand metal holder, while you turn the roll round with the left hand; then, if the holder is rotated by the roll, the flange is in the correct position; if the roll can be turned without moving the holder, the flange is not in the groove, but will probably slip into its place during the rotation of the roll.

Then place the ring of the roll upon the hook in the 'Takeup Spool,' and before commencing to use the treadles, turn the 'Take-up Spool' with your hand until you have wound past the thicker front portion of the roll, (used in most 'Pianola' music) and brought the thinner paper on to the 'Tracker-bar.'

To start the roll the 'Tempo Lever' can be moved over to the highest speed, then, after placing the 'Gear Lever' to the right, the treadles can be used to hurry over the plain paper. Now the 'Tempo Lever' should be pushed over to the extreme left, about two inches before the first perforation reaches the 'Tracker-bar.' This will stop the roll and give you the opportunity to decide at what speed, and with what degree of power, you will commence to play.

## CHAPTER II

# DIRECTIONS FOR USING THE 'PIANOLA' PRACTICE ROLL

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# Directions for using the 'Pianola' Practice Roll

The student should devote his attention entirely to the particular form of foot work, or lever manipulation, for which each example is specially intended. He should remember that these excerpts, from certain compositions, have been selected for the purpose of *study*, and must not be treated as pieces to be played for personal enjoyment. In effect the *musical results* will probably be very crude, because only a *portion* of the artistic possibilities of the 'Pianola' will be made use of in each case; but if the various forms of expression control are thus studied separately, and each one is thoroughly mastered, there will be less difficulty in acquiring a sub-conscious use of the foot work in combination with the manipulation of the levers. When once acquired, this new technique will provide the power to play, *at sight*, the most difficult compositions in a perfectly artistic manner,

#### EXAMPLE I.

#### The March of the Men of Harlech.

When attempting to play the 'Pianola' for the first time, it will probably be necessary to use the fect in a more or less even manner (using them alternately), in order to obtain a sufficient amount of power, and this March can be played in this simple way until the student becomes accustomed to providing enough energy to produce a full volume of tone.

It should be understood that the foot thrust only gives the maximum effect when it is made at the *moment* a note, or chord, is *being played*; if used in between the sounding of the notes, the energy is expended almost uselessly, except for the small amount of reserve power thus created. As soon as fairly loud effects can be easily produced, the student should endeavour to make really strong accents by using sharp, decided strokes with considerable strength from one foot, and it is best to proceed at once to train either the left, or the right, foot exclusively for the purpose of accentuation.

#### Example II.

# Prelude Op. 28, No. 20. Chopin.

#### (Excerpt from Roll No. T82592, Aeolian Co.'s Catalogue).

In this well-known Prelude will be found ample opportunity for studying and obtaining the wonderful variations and gradations of tone which can be produced by the proper control of the foot pressure.

The art of very gradually increasing or decreasing the power should be carefully studied until successive changes can be made so smoothly as to be almost imperceptible.

#### EXAMPLE III.

Noël. Balfour Gardiner.

#### (Excerpt from Roll No, TL22324, Aeolian Co,'s Catalogue).

Before attempting to accentuate this exceedingly rhythmical fragment, the student should read the following remarks :---

There are three essentials for an effective and powerful accent. First, there must be enough reserve power in the instrument to cause the treadle to offer some resistance to the pressure of the foot, otherwise the treadle will sink away and the energy be wasted; this resistance can be created by strong pressure with the reserve foot just before the accent is required. Next, a sharp thrust must be used, as a heavy push does not give a crisp accent. Finally, and most important, the action of the accenting foot must take place at the instant the first fraction of the perforation belonging to the particular note reaches the corresponding hole in the 'Tracker-bar.' As only a short stroke should be used, it will be seen that if this action occurs even a very small distance in *advance* of the note, the foot will have expended its force almost uselessly in merely creating reserve power which never approaches the force that can be exerted upon a note, or chord, by the direct and instantaneous action of the foot, while if the stroke is used *after* the note has sounded, the energy is utterly wasted so far as that attempted accent is concerned.

A word of warning is also required to guard the student against the fault of using too much force upon the shorter notes which occur immediately before the accentuated longer notes in this example, for if, in the effort to obtain power for the latter, the reserve foot is thrust down vigorously exactly upon these shorter notes, *they* will become accentuated, and will detract from the rhythmic effect so essential in cases of this kind.

Considerable practice will be needed before the student will be able to gain sufficient reserve force without creating accents where they are not required.

#### EXAMPLE IV.

## Serenade Badine. Gabriel-Marie.

#### (Excerpt from Roll No. 81472, Aeolian Co.'s Catalogue).

After acquiring the art of obtaining a wide range of touch (including definite accents), surely and without undue effort, it is well to proceed to a careful study of the tempo control, for which purpose the fourth extract has been chosen as a type of light, fanciful music, in which considerable excesses of tempo variation can be used.

Before attempting to practise this, certain combinations of tempo and touch should be considered, because the manipulation of the 'Tempo Lever' must be accompanied by suitable foot work. The well-known effects of *rallentando* and *diminuendo*, cressende and *accellerando*, also the usual form of *allargando*, can only be artistically expressed if the gradations of touch are in exact accordance with the gradations of tempo.

When practising these effects it must be remembered that the 'Pianola' requires at a rapid tempo more power than it does at a slow tempo, to produce the same degree of force, whilst the number of notes to be played will also considerably affect the case.

In addition to the gradations mentioned, rapid movements of the 'Tempo Lever' will be required for sudden effects. Frequently a *tenuto* must be made upon some individual note, or chord; sometimes it is necessary to halt for an instant before an accented note in order to broaden the effect, or it may be that a 'breath' is needed between two phrases, and occasionally a sudden pause is required. These quick movements of the 'Tempo Lever' will vary in amount, according to the speed at which the roll is being played and the nature of the effect required, whilst the accompanying touch must be suited to the particular purpose.

The 'Metrostyle' line has been specially marked for this extract and can be used as a guide for the tempo by following the red line with the pointer attached to the 'Tempo Indicator.' This will result in variations of speed in accordance with the interpretation of the person who originally marked this line. The amount of movement has been purposely exaggerated, but in such an avowedly frivolous piece, considerable freedom is permissible, and it must be remembered that in 'Pianola' playing it is most important to avoid any stiffness of the tempo movement, or the effect will become extremely mechanical, and it is far better to err upon the side of a slightly excessive movement of the 'Tempo Lever.'

#### EXAMPLE V.

## Scherzo Valse, Op. 106. Godard.

#### (Excerpt from Roll No. T80136, Aeolian Co.'s Catalogue).

In this example the melody notes are evenly spaced and can be easily distinguished from the accompaniment by their duration and the nature of their perforations, which appear as open cuttings for a portion of their length and then continue by a series of small round holes; whereas the accompaniment has mostly short chords and octaves, each note of which consists of small perforations.

The two 'Subduing Levers' must be held hard over to the left, throughout this example, then the greatest care must be taken to time the stroke made by the phrasing foot to take place at the *exact* moment each melody note is *actually played*. When this can be accomplished with certainty, variety of strength can be used, always with *one* foot, from a delicate touch which may be almost as soft as the subdued accompaniment, to the strongest possible tone, which should cause the melody note to ring out perfectly clearly and distinctly above the chords and octaves.

As melody playing is obviously an extremely important part of 'Pianola' playing, the student will do well to endeavour to cultivate every possible degree of touch when studying this excerpt.

#### EXAMPLE VI.

# Schetzo Valse, Op. 106. Godard. (Excerpt from Roll No T80136, Acolian Co.'s Catalogue).

The 'Themodist' perforations have been purposely omitted in the repetition of this excerpt, in order to necessitate the rapid manipulation of the subduing levers for the purpose of keeping the melody clear and distinct from the accompaniment chords. The student can use the two levers (Bass and Treble) simultaneously, and must release them just before each melody note, but they must only remain in their normal position for the fraction of a second during which the note commences to sound, and must then be returned hard over to the left, so as to subdue the chord and octave occurring in each bar.

It is best to use the *thumb* across both levers for this manipulation, and it will have to move quite rapidly; but a 'Pianola' player should be able to isolate unthemodised notes when they occur in a similar manner to those in this example, also when the levers have to be used separately.

#### EXAMPLE VII.

# La Fileuse, Op. 157, No. 2. Raff.

#### (Excerpt from Roll No. TL20001, Aeolian Co.'s Catalogue).

Before playing this excerpt the student should read the following explanation of the principles governing the use of the 'Themodist' and the 'Subduing Levers':---

Bear in mind the following broad rule : When the melody is Themodised by means of the *double* perforations (near the treble or bass edge of the roll), if each melody note requires to be distinctly stronger than any accompaniment note, chord, or passage, both of the 'Subduing Levers' must be held hard over to the left and kept there during the whole section in which the Themodist perforations appear. The word *Solo* should be found on the roll at the commencement of each Themodised section, and the word *Normal* should be found at the end of such sections, but the *double* perforations will serve as the best guide for holding back the two levers, the broad rule being that while these pairs of perforations are visible between the top spool and the 'Tracker-bar,' on whichever side of the paper they occur, the 'Subduing Levers' should be tightly held over to the left. There are, however, some important exceptions from this rule. The space between two successive melody notes may be sufficient to allow for special phrasing of the intermediate notes of the subordinate part; it will, therefore, be found necessary in many cases to allow these levers to return partially, or entirely, to their normal position after the first of the widely separated melody notes, making sure that they are again held over to the left in time for the playing of the next Themodised note.

These levers of the 'Pianola' have a graduated effect upon the accompaniment, inasmuch as they allow more power to be produced when fully over to the right than when nearly over to the left; but as the variation of foot pressure will very considerably affect the result (except when the levers are held *bard* over to the left) care must be taken not to counteract the graduation by faulty foot work.

Further cases in which these levers should be released or only partially held over will be found when the melody is being played strongly and the accompaniment may seem too weak; or when volume of tone is required, when the accompaniment may have to be brought up to such a strength that it will probably overpower the melody before sufficient fulness of tone is obtained.

If the mechanism of the accompaniment control has been adjusted to give extremely soft effects for single notes, it may be necessary slightly to release the levers when rapidly repeated notes occur in the accompaniment sections, otherwise the controlled power may not be sufficient to play such portions satisfactorily.

In this example from Raff's well-known composition, the student should practise the increase and decrease of tone in the short intervals between the melody notes, as indicated and explained upon the Roll. The variation of foot pressure is not less important than the correct movement of the levers, and it is very desirable to acquire the art of introducing variety of touch in accompaniment passages in such a manner that the melody is not overshadowed.

#### EXAMPLE VIII.

Variations in D minor, Op. 54. Mendelssohn. (Excerpt from Roll No. T20171, Aeolian Co.'s Catalogue). مر و الدور

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It is not always necessary or desirable to use the two subduing levers simultaneously. Frequently the Bass portion of the piano can be softened with considerable advantage in order to give the Treble a greater prominence.

This example will serve to illustrate this point, and it can be played with the 'Bass Subduing Lever' held over to the left.

The student may also play this excerpt again *without* subduing the bass, and he will then observe how overpowering and monotonous will become the repeated chords in the lower portion of the Piano.

#### Example IX.

Rondo Capriccioso, Op. 14. Mendelssohn. (Excerpt from Roll No. 80096, Aeolian Co.'s Catalogue).

Far less frequently it will be found possible to improve the effect of certain passages by subduing the Treble, and this example is intended to show the result of holding back the treble subduing lever only, at certain places indicated upon the roll, though the lever is soon allowed to return to its normal position.

#### EXAMPLE X.

Valse des Fleurs. Tchaikovsky.

#### (Excerpt from Roll No. TL20491, Aeolian Co.'s Catalogue).

Finally (but not until all other manipulation has been acquired), the student should study the use of the Sustaining Pedal, for although an automatic device for this purpose is provided in the 'Pianola,' this part of the expression control is so much a matter of personal taste and is such an important feature in Pianoforte music, that the use of the 'Sustaining Pedal Lever' should be cultivated; but as the injudicious use of this lever will result in objectionable discords, it will be safer for the *beginner* to avail himself of the automatic use of this part of the expression.

This example serves to show the effect of the 'Automatic Sustaining Pedal,' but if played with the actuating lever placed to the ' off ' position, the student will readily observe how thin and poor in comparison will be the long passages and groups of chords which are no longer linked together.

No example need be given for the use of the 'Soft Pedal,' but it might be well to point out that it should not be used for merely producing *pianissimo* effects if these can be obtained by light foot work.

In cases of rapidly repeated notes, as in that of the frequently found *tremolo* accompaniment, it may be desirable to use the 'Soft Pedal' for modifying the tone of the piano, while using enough power to make the reiterated notes play clearly.

Before leaving the Practice Roll, the student should endeavour to master as much of the manipulation of the 'Pianola' as possible, and should realise that the artistic possibilities of the instrument are practically unlimited.

The remainder of this Booklet describes the various forms of the 'Duo-Art' 'Pianola' Piano.

# CHAPTER III

# INSTRUMENTS FOR REPRODUCING THE PLAYING OF CELEBRATED PIANISTS, AND THE 'PIANOLA' PIANO WITH REPRODUCING ACTION

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## THE ELECTRIC 'DUO-ART' 'PIANOLA.'



The Electric 'Duo-Art' Model is primarily intended for the reproduction of records by celebrated pianists, so that their interpretations can be studied and enjoyed. Doubtless it will prove of interest to give a short account of the method by which the 'Duo-Art' records are produced—

The celebrated pianist is asked to play upon a Grand Piano that in outward appearance does not differ from the usual instrument. Into this piano is inserted an electric cable containing a large number of wires, half of these leading to specially devised contacts under the keys, the remainder running to positions near the point where the hammers strike the strings, whilst the cable itself passes through the wall of the room, coming out into a sound-proof chamber, in which is installed the 'Duo-Art' Recording Apparatus. Here the other ends of the wires are attached to electro-magnets which operate the punches in the powerful perforating machine, each punch corresponding with its proper note upon the piano.

The pianist plays, the punches perforate, the permanent record is produced !

This method of recording ensures accuracy of reproduction, the length of the perforation being determined by the period during which the key is held down. As the machine causes the punches to repeat at the rate of 4,000 pulsations to the minute, it is a proof of the agility of the pianist's finger if he is able to attack and leave the key of the piano during a single movement of the punch, yet such *staccato* notes are frequently found in the records, and these perforations measure about the 32nd part of an inch in diameter.

The Rhythm is determined by the spacing of the perforations in the music roll as it passes through the recording machine at a uniform speed (usually eight feet in one minute), and this spacing is in exact accordance with the interval between the notes played by the pianist, so that when the music roll is placed upon a 'Duo-Art' Piano and caused to move at the same speed, there must result perfect reproduction of the most subtle rhythm.

Dr. John B. McEwen (Principal of the Royal Academy of Music) has mapped out a chart (see page 28) to illustrate the different tempo phrasing used by two great planists when playing the first four bars of the so-called Raindrop Prelude by Chopin.

The Melodic outline is shown by its position in the horizontal sections; the vertical columns represent the regular divisions of the rhythm, each one being of the value of one quaver; the Bat lines are shown by darker lines.

The MIDDLE SECTION shows the rigid metronome tempo with the notes occurring exactly upon the rhythmic positions indicated in the printed music.

The UPPER SECTION is taken from the 'Duo-Art' music roll recorded by Busoni.

The LOWER SECTION shows the amount of *tempo rubato* used by Pachmann in *his* 'Duo-Art' record.

In both records the first note is in excess of its actual value. Busoni held it an extra quaver, while Pachmann increased its normal length by a dotted semiquaver.

The short notes are *all* extended beyond their value by both these artists, and this excess of time is balanced by a reduction

of some of the longer notes, particularly the dotted minim in the second bar.

Where the note F is repeated at the beginning of the fourth bar, theoretically the previous note should extend exactly to the commencement of the bar, but if the note is to be played twice, there must be a point at which the finger is raised, and this is shown by a slight division in the marking of the two notes



just before the bar line in the middle section. It is interesting to observe that while Busoni raised the finger for a very short time and played the two notes with the different values indicated by the composer, Pachmann made a wider space between the notes and played them as though they were of equal value !

The highest note of the phrase is slightly shortened by both pianists, but it is almost certain that if a vocalist had to sing that melody, the top G would be considerably extended. The Touch of the pianist is similarly recorded and reproduced, still by means of perforations in the music roll, in conjunction with mechanism in the recording machine and in the 'Duo-Art' Piano. With four Dynamic Controls, sixteen different degrees of touch can be produced, extending over the whole range of finger power, from the lightest *pianissimo* to the strongest accent; and in combination with the Themodist device the melody is differentiated from the accompaniment, each having its own set of Dynamic Controls with the full range of touch just explained.

When the original record is made it contains several stray wrong notes which no pianist can entirely avoid when playing passages requiring force and rapidity. One of the finest artists recorded no fewer than three-hundred-and-sixty false notes in a single composition. Fortunately there is a method by which the music roll can be edited under the supervision of the pianist himself, and every blemish removed, whilst omitted notes can be cut into their proper places. Nor do the possibilities of editing end at note correction; the touch itself and even the rhythm can be improved upon if the artist should so desire.

It is obvious that when this revision is carefully carried out under the direction of the pianist, there must result a most finished interpretation. This explains Percy Grainger's statement that his records represent him not merely as he did play, but as he ' would *like* to play.'

Perhaps the greatest tribute to the artistic effect came from Paderewski, when, speaking of his 'Duo-Art' record of one of his own compositions, he said that listening to the reproduction gave him the same feeling in his heart as when he played it himself.

For the purpose of playing artists' records upon the Electric 'Duo-Art' it is only necessary to place the roll in position, set the 'Tempo Lever' at the figure indicated upon the music roll, and start the electric motor. The 'Duo-Art' record will then be played with all its variety of expression and will re-roll itself without any further attention.

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Ordinary 'Pianola' music rolls can be played upon the Electric 'Duo-Art' instrument; then the expression is under your personal control by means of the levers already illustrated (see page 26).

The lateral movement of the Lever A will give the whole range of tempo variation from a *pause* to *presto*, and the turning of the milled head of this same lever will give graduations of tone to the *themodised* notes (notes occurring simultaneously with the double marginal perforations). The knob should be turned round to the right to increase the tone of the melody, and the movement should be made slightly *in advance* of the playing of the notes.

The Lever B engages the driving gear for rolling the paper from one spool to the other. When placed to the *right* it will cause the 'Take-up Spool' to revolve, thus drawing the paper downwards over the 'Tracker-bar." By placing this lever to the *left* the gear is reversed so that the top spindle is revolved, for re-rolling the paper back on to its own spool.

If the instrument is provided with the 'Silent' device, this gear lever, when placed centrally, will enable the paper to be moved rapidly over the 'Tracker-bar' without allowing the notes to sound.

The two 'Subduing Levers' (C and D) modify respectively the power of the Bass and Treble portions of the instrument. The upper, or backmost lever controls the Bass section (up to and including the E flat nearest to the middle of the keyboard), and the lower or frontmost lever controls the Treble section (from the next note, E natural, up to the highest note of the instrument).

All accompaniment, or *unthemodised*, notes will be under the control of these levers, the *normal* position giving the maximum power, and this can be reduced by holding the levers partially or entirely over to the left. Accents can be produced by suddenly releasing these levers (after having held them over to the extreme left) at the moment the accentuated chord is about to sound; and, if contrast is still required, the levers can be returned to the left in order to subdue the following notes.

The 'Soft Pedal' and 'Sustaining Pedal' Levers (E and F) merely take the place of the two pedals of the planoforte, which can be used by the feet in the usual manner if preferred, or the Automatic Sustaining Pedal can be made use of by setting the special lever in the music aperture to the 'On' position for this purpose.

With practice it is possible to obtain wonderful effects with the controls in this Electric Model.

## THE 'DUO-ART' 'PIANOLA' PIANO-PEDAL ELECTRIC MODEL

The latest and most complete 'Duo-Art' 'Pianola' Piano combines the advantages of the electrically controlled 'Duo-Art' with all the features characteristic of the 'Pianola' itself. Consequently the remarks relating to the playing of standard 'Pianola' rolls on the 'Pianola' Piano will apply to the corresponding mechanism of this instrument.

It is also immediately available as an Electric 'Duo-Art' Piano for reproducing the records of the great pianists, in precisely the same manner as the ordinary electric model (see page 26).

If it is desired to use the electric motor in place of footwork, whilst playing the music rolls with your own expression, the levers will be found to act precisely as in the electric 'Duo-Art' 'Pianola' (illustrated on p. 26).

It would, however, be well to state that when you substitute the electric motor for your own personal energy, you are depriving yourself of the main enjoyment of 'Pianola' playing, and cannot hope to derive as much musical satisfaction as you will when you shut off the motor and get into intimate touch with the source of tone production. For the playing of 'Duo-Art' records, however, the electric motor is by far the best form of motive power, because the dynamic effects have been calculated to reproduce the required expression under the condition of a constant source of power of a definite amount.

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If this wonderful instrument is used for the two proper purposes for which it is designed, i.e. \* Pianola' playing by foot work, and the reproduction of artists' records by means of the electric \* Duo-Art' control, you will derive the greatest possible pleasure, musical gratification, and educational advantage that any expenditure could provide.

# THE PIANOLA' PIANO WITH draw REPRODUCING ACTION

This instrument is intended for cases where the ordinary electric current is not available. It serves for the playing of 'Duo-Art' records without the manipulation of any levers, giving an exact reproduction of the tempo phrasing, but it requires careful foot work to give the correct amount of power for the *themodired* notes.

It is possible to estimate the strength required, by observing the value of the dynamic perforations on the right-hand side of the roll. These occur in four parallel lines, the outermost being of the value of one degree of power; the next, two; then four; while the inside line is of eight degrees. The various combinations of these will produce all the numbers from one to fifteen, so these perforations serve as an indication of the power needed for reproducing the touch, as recorded upon the roll.

The unthemodised notes will not be affected by the variations of foot pressure, unless the power is dropped to a lower amount than that arranged for by the dynamic perforations on the lefthand side of the roll; but no amount of effort will increase the tone of the unthemodised notes beyond the limits imposed upon them by these dynamic perforations.

As a broad general rule, it may be said that one can feel the trend of the power required for the melody by keeping it clearly above the tone of the accompaniment.

This instrument is specially suitable for the use of standard 'Pianola' rolls, since the controls are quite the same as in the ordinary 'Pianola' Piano Hence nothing more need be said, except that the 'Duo-Art' lever in the music aperture must be set according to the kind of music roll it is desired to play—'Duo-Art' or ordinary 'Pianola.'

# **Early Mechanical Music**

#### by Philip Coole, F.B.H.I.

Keeper of the libert Collection of Clocks, British Museum,

• Control of the skeleton of basis for what might be called a family tree.

Following this premise the modem form of mechanical music, for our present purpose, is not the gramophone or tape-recorder where a pattern of the vibrations is recorded subsequently to be reproduced. It is immaterial whether this recording is made on disc, tape or photographically on film.

The pinned barrel is not a record of actual sound but a programme to cause tuned elements to vibrate in a predetermined sequence and is equivalent to written music for the human performer who is thereby told when to sound what note. The programme can vary in complexity, the simplest form is the alarum clock where a single note is sounded at equally spaced intervals; the most complex arrangement is the true modern form of mechanical music a computorised electronic organ, The tuned electrical circuits being actuated by a tape containing music composed by a computor. Another computor can write a lyric should it be required,

In any form the true musical box should be capable of producing music without its programming device because it contains tuned elements. With a little practise it is possible to play the comb from a musical box; I have yet to find an ordinary person who can get a tune out of a pickup.

Therefore for our purposes mechanical music needs two components, tuned elements and a programme; any random form of sound production is ruled out. We can exclude such things as aeolian harps, wind bells and bird warblets although these can be and were driven by artificial means. As we know, machines were produced to play actual instruments, the player-piano is the obvious and, in some ways, simplest example. But successful attempts were made with the violin with the attendant problems of bowing and fingering. However these machines were made on a purely mechanical basis and no attempt was made to provide a representation of the actual musician which simplified the problem somewhat.

This idea of producing a human figure that actually played an instrument had a challenge that was met successfully several times in the 18th century by people like Vaucanson, Jaquet-Droz and Kintzing who made this cymballam player in 1783. Properly this idea belongs to the realm of automata, of talking heads, chess-players and figures which drew pictures and could write. Nevertheless, these figures should not be confused with those which simulate the playing of an instrument to the accompaniment of a musical box like the mandoline player of the end of the 18th. century or the two musicians of about 1825-30. The best ones actually played their clavecins or spinets. When you realise the problems of flute playing, the movements of the tongue and lips, the supply of air at the correct intervals and pressure and the placing of the fingers all of which had to be synchronised, you can begin to appreciate the genius of their creators.

But however entertaining and interesting these excursions may be they are taking us away from our main theme - mechanical music.

The vibrating rod probably evolved from the runing fork but may owe something to those reeds to be found in certain stops in the organ which date back to the regal of the Middle Ages and which, in turn, probably evolved from reed instruments. The main effect of the invention of the reed was one of miniaturisation which permitted simple music to be fitted into seals and lockets and more elaborate music to be played by a machine that could be incorporated in a snuffbox. This it did by replacing the bell and its associated hammer-work. This, in turn, cut costs and allowed the musical-box to reach a wider market. A good thing this otherwise our society would not be in existence. Even with the great numbers which are produced, especially of the larger boxes, the percentage of survival has been small.

However the idea of the pin acting directly on to the vibrating element was not new but had at least been suggested by Robert Fludd early in the 17th century.



A frame was built on a float or piston and fitted with vertical bars. These bars had spikes driven in their sides at intervals demanded by the tune. The bars passed between the strings of a harp. The frame and harp were placed on top of a cylinder filled with water, or in some types sand, so that the float rested on the surface. As the level of the filling sank so the frame moved downwards and the spikes plucked the strings.

It is interesting to note that the harp is properly constructed and it must be one of the very few attempts at scaling in a musical box so that all the strings are at the same tension and would be equally loud.

Scaling is best seen in organ pipes where the area of the cross section varies as well as the lengths. A lack of scaling causes a dull sound in the bass notes of a comb and the over-brilliance at the other end.

The obvious drawback to this system was that it was necessarily limited by, first, the need to draw the frame back up through the strings and, secondly, having to refill the cylinder with water or sand as the case might be. Also the speed of fall would not be constant, as the head decreased so would the speed and so upset the rhythm.

As it is, it is an amusing example of an unrolled cylindrical pin-barrel which Fludd also used in a more conventional manner and the apparent crudity tempts one to think that he might have encountered this or a similar device in his researches into the history of music but, so far, there is no evidence to support this theory.

His more conventional machine on the left of the illustration is used with an organ. As it is shown, there must have been a tendency for the piston to fall over, but at the bottom of the travel the board which it has replaced can be removed and the piston lifted out for more easy filling of of the cylinder.



The device on the right is also for an organ but the pinned board moves upwards. It is hoped that a drain plug was fitted although this is not shown.

These machines of Fludd's with their various resetting problems bring a further modification of our present definition of mechanical music. In the broad sense a street piano or barrel organ may be termed, quite rightly, mechanical music, in that they make no demands for the skill on the part of the performer. For this reason they will be excluded and we will only consider those machines which have their own source of power which can be replenished easily.

With Fludd we have gone back into the 17th century missing out the musical clocks and mechanical organs which abounded in the 18th century, but as this period is fairly well covered there is no need to linger on the conventional clock or the more elaborate type with automata. Fludd's work was copied in the middle of the 17th century by both Gasper Schott in 1657 and Anastarius Kircher in 1650 although it is problematical if either of them had any real idea of the mechanics involved as the illustrations show.



Robertus de Flustibus: » Instrumentum nostrum magnuem»

This is clearly Fludd's frame but with spikes on both sides of the bars and showing details of the notes and values. There are two differences, the loop at the top and the steadying weight at the bottom. The loop was to hang it by a rope from a barrel turned by a spring mechanism. Unfortunately they managed to fix it firmly to the harp so that it could not have worked. They have also lost the correct shape of the harp.

This is Schott's illustration of the machine. On the same page is an organ which could be an ancestor of the pianola as the tracker rods are connected to a keyboard. Notice how the water is expected to do two jobs. As it runs into the tank it is supposed to compress air to feed the organ, notice the twin baffles to hold the splashes back. As it runs out it turns the pin barrel by means of a water-wheel and gearing. Even this



idea may have been borrowed from Fludd except he got things in the right order. The water-wheel is turned first and then compresses the air. Naturally it could only play for a limited period before the tank became full. History does not relate what he hoped to achieve by stopping the tops of the organ pipes but a more conventional arrangement is shown on the right.



Nevertheless, the two-for-the-price-of-one idea was considered capable of expansion and automata were added. If this were not enough a second organ was introduced.



Both Schott and Kircher give details of a device for pricking cylinders on the left, this is Schott and shows a more practical, not to say more conventional method of supply air for an organ. It can easily be seen that Schott borrowed from Kircher. The lifts are preformed with the length being related to the duration indicated by musical notation. The barrel is marked with a rudimentary form of keyboard. Only chords of three notes are provided for the movable markers mainly because the air supply could not cope with it. Also provision is made for putting more than one tune on the cylinder by sliding the keyboard along. This, of course, foreshadows the work of Pere Engramelle in 1775.

The barrel marking device may show that musical machines were in sufficient demand to necessitate its invention; it may be only a pipedream as these writers were strangely out of touch with current practice.

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On the other hand, Salomon de Caus, writing in 1615, who was mainly dealing with much bigger machines seems to have had more practical knowledge. This is a well designed organ with three stops even if they are manually operated. He even provides us with an early example of the interchangeable barrel. The scale can be partially determined by the inclusion of lifting gear for the barrel. (Facing page)

As we are going backwards one of Kircher's devices is of more interest to us even though it is actually later. This is a carillon connected to a clock but the bells are not mounted in the straight line to which we have become accustomed and which their hemispherical shape would have They are, however, mounted to save allowed. space, one large bell being in line with two smaller, and with the medium sizes being grouped together at the side. Something of the same idea is followed in the smaller machine at the bottom. In the larger machine the lifting pieces would not be in chromatic sequence and there would be a small transposition problem which does not occur in the smaller as the motion is



transmitted through cranks which can take care of transposition by offsetting the arms.



Here Kircher was following current, if not earlier, practice as is shown by this clock reputedly made by Nicolaus Vallin, Clockmaker to Queen Elizabeth I in 1590. As can be seen the crank system is used for offsetting, in some instances the bells are struck on the outside, in others the inside. The loose wire on the left is for a small bell placed on the next stage under the big hour bell. Although the bells are not in a straight line the lifting pieces are, and in this follow what may be called the clavier on keyboard tradition. The same system was employed in the two nefs, one in the Conservatoire des Arts et Metiers in Paris, the other is in the British Museum.

Before we pursue this idea of traditions we will have a suick look at what another practical man was doing at the end of the 16th century, clockmaker to the Holy Roman Emperor Rudolf II, Hans Schlottheim. This was the organ work for the Christmas Crib which was, unfortunately, a



victim of bombing. The clockwork drives both the automata and the organ. To save space the face of the wheel is pinned as well as the cylinder just behind it - an idea he also used in the more elaborate organ in his Tower of Babel. The variation in length of lifts can be plainly seen.

This use of discs at so early a date is interesting. However the lifts are still in a straight line and except for pinning on radial lines there was no new problem of transposition as there was in the later discs which were used in watches. As the reeds were ranged round part of the disc, the datum line for pinning is spiral. To make things more complicated the disc is pinned on both sides.

Even this circular disposition had been attempted by Fludd in a variation of his harp which used bells. Fludd had no transposition problem as he simply wrapped his flat board round a vertical instead of the usual horizontal axis,





for him the datum line was still straight. However the interesting point is the arrangement of bells in a circle and at a time when people were inclined to borrow ideas and modify them. Did Fludd borrow this idea? It seems that he may well have done so.

Isaac Habrecht of Schaffhaussen went to Strasbourg to rebuild the clock in the cathedral. The clock proved to be past repair so he built a new one which proved to be so popular that he was commissioned to make three smaller versions basedon the left tower, one was made for Ratisbon and is, at present, missing, one is in the Rosenborg Slot at Copenhagen and the third is now in the British Museum. This incorporates a carillon with the bells arranged in part of a circle round a cylinder which revolves horizontally. With this circular plan the placing of the pins has to be offset in a manner agreeing with the disposition of the lifting pieces. In this clock the bells are not equidistantly arranged, nor are they in sequence which naturally added to his transposition problem. He undoubtedly went to all this trouble to save space in plan. He had height to spare so the bells were on two planes. There is no linkage, each hammer is lifted directly by the pins on the cylinder.

Habrecht's clock was weight driven, but both Nicholas and Jacques Vallin made spring driven clocks with horizontal pin barrels surrounded by the lifting pieces. In these the bells are in musical sequence so the transposition is a simple matter of staggering each row of pins by an equal amount. The earliest known of these Vallin clocks is dated 1565. All of them are rectangular in plan and closely resemble the conventional clocks of the period.

So in the 16th Century, we have found that domestic, as opposed to public, musical clocks were being made with their bells ranged in a circle and this could provide a clue to the mechanics of a clock mentioned in the Inventories of Elizabeth I having been brought forward from the time of Henry VIII.

It is entered as "ITEM: one great Basone guilt wherin standeth a Clock with a Cheyme in the foote gamisshed with Camewes standing upon vj pillar of silver guilt within the same a myne of silver standing in the same a barnisshed man and two women the Clock latten and Irone with divers wrestes and Jointes of Irone the belles of Steele the top gamisshed with couers stones standing thereupon a barnisshed man bolding in thone band a mace in thother band a buckeler lacking many smale peces weing with copper Irone and Steel. vijc vij oz."

This had appeared in the inventories since 1550 but, like so many other treasures, was sent to the Mint to be broken up for the silver content in October 1660 after Cromwell had died and the army had seized power under the title of the Committee of Safety. So seems we could never do more than guess at what the mechanism of such a clock was like. But, as so often happens, chance came to the rescue.

The Victoria and Albert Museum acquired, on loan, a clock in a silver gilt urn. The figure on the top revolves and indicates the hours engraved on the rim of the neck, with a staff. Half the globe is enamelled blue so it will simulate the phases of the moon as it revolves, at the same time a pointer shows its age. The figures in the colonnade forming the neck stand just over -12 inches high.

The movement shows how the other Tudor clockmakers managed to get their chime in, the same way as Vallin had done, by placing the bells in a circle.

We have now established two traditions, the straight line and the circular. It may be that the first is a miniaturisation of the large carillons but it is equally possible that it belongs to mechanical organ practice if we could establish that such a tradition existed.

Our mechanical music trail has now got back to the first half of the 16th century, close to the period most people consider as the beginning of small machines. Large carillons are known in the early 17th century. Can we get back further? Are carillon really so big?

Early manuscript records of clocks in monasteries show that some had what is called *exitatoriam.* This word usually translated as an alarum but if we examine the word in its complete context we find that its translation as "alarum" is the easy way out but that, in fact, it means something more. Primarily *excito* meant 'to rouse forth' and 'to arouse from sleep' is only a minor translation with 'e somno' implied. It can also be translated as 'to call forth by shouting' or 'to summon' so we now have the possibility that the clock was not intended to awaken the monks but to summon them to prayer.

This receives some support from the fact that many of the existing carillons play before the hour and that they were usually religious tunes. The Habrecht clock in the British Museum plays the Lord's Prayer, one of the six tunes played by the third Strasbourg clock, and in turn one of the original three played by the 14th century clock. Unfortunately we know virtually nothing of the mechanism of this clock. We have a good idea of its overall size but there is no way of knowing the size of the movement, so it may be that the early carillons known only from records were smaller than has been previously thought.

Is it possible to arrive at some idea what these clocks looked like? The most fruitful source for illustrations of medieval clocks is the illuminations of the various manuscripts of the 'Horloge de Sapience' a mystical religious work and the associated Othea of Catherine of Pisan. All of the clocks shown are quite small and without music. The exception is the Brussels and Vienna copies of the 'Horloge de Sapience'. The Brussels copy shows Wisdom, standing in the centre, with her hand on a clock. The date is about 1460. The other figure is Henri de Suso otherwise Heinrich Seuse author of the 'Horloge de Sapience'. The scale cannot be relied on as illuminators tended to emphasise things by making them larger than life and this might well have happened here to judge from the size of the bells on the carillon. You will easily recognise the mechanical form of this. In spite of our knowledge that this type of construction was used in

the 16th century can we trust this picture or is it a figment of the artist's imagination later translated into fact.

In general, illuminators tended to depict objects with which they were familiar and examination of other objects in the picture seems to show that our artist was no exception. The astrolabe, sundials and quadrant are all conventional and correct for the period and, more important, the construction of the clock is of a particular type. Note the small machine on the table, this could virtually only occur in a Burgundian manuscript as it had only just been invented, so we may assume that he was working from life and we can safely accept the carillon as fact. Supporting evidence is obtained from a second, later copy of the manuscript. The composition is different but all the components are the same with one important exception, the small movement on the table. As there is barely ten years difference in the date the copyist omitted it from unfamiliarity whereas he was acquainted with all the other items and so we may assume they did exist, particularly our carillon.

The horizontal pin wheel is driven by a contrate wheel and the artist had difficulty with his perspective while trying to show the teeth standing at 90 degrees to the plane of the wheel. The arrangement of the hammers is quite familiar now.

Can we go back yet further? There is a technical horological manuscript in the Yale Medical Library. The introduction promises details for the construction of a musical clock. Unfortunately the manuscript is incomplete, but by using the 'incipit' or opening words another copy was found in Cracow, this can be dated at about 1380. Comparison of the two shows that they are both copies but not from an immediate common ancestor, and that the original must date from 1350 at least.

The Cracow copy contains the crucial musical which gives complete details for making a carillon such as that shown in the 'Horloge de Sapience', the only significant difference being in the shape of the bells. The instructions are for a *cymbellorum* with hemispherical bells whereas the illumination shows a *tintinabulum* with small almost bell-shaped bells.

The instructions are really complete. Not only do they go into the problem of off-setting the rows of pins on the cylinder, but tell how to cast a set of bells which will require a minimum of tuning. This section on bell founding has been



taken almost word for word from a general technical treatise of the early 11th century. So far there is no precedent for the carillon itself.

The bells are cast by the lost wax process and the scaling is done by weight. From a given weight of wax you produce the model for a hemispherical bell of a given diameter, another piece of wax half the weight and modelled to half the diameter, will make a second bell sounding an octave above the first, the remainder of the octave is produced by appropriate sub-division.

No dimensions are given, you are virtually told to make it as large or as small as you like, but judging from other parts of the manuscript the author was thinking in terms of something about eighteen inches high. So we see that small scale, weight driven carillons were being made as least as early as 1350. But even this is not all! A further section of the manuscript provides instructions for building a mechanical organ complete with organist. This last is a marvellous example of simplicity almost amounting to the touch of genius often shown by early mechanics. The figures is seated in front of the organ with its weighted jointed fingers resting on the keyboard. As the keys are pulled down by the machine the fingers will follow, giving the impression that the organ is being played.

I hope I have been able to demonstrate that both mechanical carillons and mechanical organs are far older than many people may realise.

This article is an edited text of the paper delivered to the last Meeting of the Society by Mr. Philip Coole. The illustrations, also provided by Mr. Coole, are from manuscripts within the British Museum collection

More letters on Page 211

#### A Member writes:

I have had a letter from a Member who asks to see the musical box collection 'at my convenience'. How he knew I'd got any there is a mystery! Funnily enough, i have one and enclose active snapshot to prove it. When in action, it plays "Horsey" or "Le Marche des Bananes" according to the tune sheet. The same tune sheet bears the trade mark "H.P." - a Parisian firm which I suspect existed on the production of 'musical novelties'. As the words "Made in France" are printed in English this suggests another daring French production to shock(?) the Puritan British market.

I would hate to be an embarrassment to fellow members at the next meeting (I must add that this musical toilet roll IS NOT JAPANESE) and will use my nomde-plume in closing. Yours musicalboxically: 'SANS NICOLE FRERES'

(Oh! The Shame of it all .... !!)



LETTERS TO THE EDITOR

#### Another Member writes:

I am very impressed with the 'new look' magazine and its professional appearance. It is a great credit to our Society and I can imagine the tremendous amount of work it must mean to you. But I do miss the amusing little stories you used to write in your Editorial. I think they made the magazine have a wider appeal.....

EDITOR'S COMMENT: Thank you for your kind words. Would you like to see the words of other Members who said "Why do you write such a load of rubbish on the first pages?" The facts are that now, with so much good material being unearthed and so much more which I know each and every one of you is about to send in (loud bint there), it is neither necessary nor right that space should be taken for 'non-essential purposes'. In any case, the appeal of the magazine is to mechanical music lovers and I am certain nobody ever subscribed to the Society just to read my Editorials! People reckoned I had an odd sense of humour. Incidentally, this month's cover picture shows pop-star Katie "Hippy-Hips" Nurkit caught by our camera unawares in her bathroom at her sumptuous Hampstead flat. "I like having someone round to play my musical boxes", she told our embarrassed reporter.



IN THE FACE of competition from Aeolian, Skinner and Wilcox & White in America, efforts to put British-made player organs on the market were shortlived. One such attempt was the instrument described above and illustrated right. This was designed by the man who made the Celestina organette in 1887 - A. Maxfield, who patented a rolldrive air motor in 1897. The reed organ seen here was the subject of British Patent No. 16,579 of July 27th, 1896. Of the compass of 61 manual notes, 31 can be played from perforated paper music 51/2" wide. Provision is made to play both endless bands as well as rolls. The case is about the same size as a barrel piano and the stops are Vox Humana, Flute, Melodia, Celeste, Diaspason, Sub Bass with Bass and Treble couplers (manual only). The instrument shown is the property of Member Frank Greenacre and the advertisement is from The Strand Magazine for February, 1900 loaned by Member Alan K. Clark of Orpington



BRITISH

PLAYER

ORGAN

From Music & Letters, Vol. 29, 1948. Sent in by Member Michael Foster

# COUNT DEYM AND HIS MECHANICAL ORGANS

#### By O. E. DEUTSCH

In the B.B.C.'s Third Programme Ralph Downes gave, on August 13th 1947, a delightful organ performance of Mozart's three works for mechanical organs, an experience which reminded me that I was in a position to add something to the history of these pieces. Even well-known facts, however, are distorted when an announcer informs us that they were ordered by a Viennese nobleman for an instrument installed in his house, the first of them as a homage to the deceased Field-Marshal Laudon. (I am quoting from memory.) That it was not one instrument, but at least two, and more probably three, for which Mozart wrote those pieces in 1790-91 has not been established so far. Indeed Mr. A. Hyatt King, who recently wrote twice about them<sup>1</sup>, had some doubts: "We do not, in fact, know ", he says, "that this Andante [K.616] . . . had any connection at all with the Laudon mausoleum: there were doubtless mechanical instruments elsewhere in the gallery ". It is true that Count Deym's "Art Gallery" contained numerous mechanical organs, but even Mozart's second piece (K.608) had nothing to do with the Laudon group, although it is related in style and mood to the Fantasy (K.594).

To begin with, let us make closer acquaintance with Deym. Joseph, Count Deym von Stritetz, was born in Bohemia in 1750. He became a soldier, and after a duel in which he believed he had killed his opponent, he fled to Holland under the assumed name of Müller. Availing himself of his gift for wax modelling, he started a new life as a sculptor. At Naples, favoured by Queen Carolina, he obtained permission to make plaster copies of antiques, including vases from Sir William Hamilton's collection. Having become a wealthy man, he went to Vienna about 1780 and exhibited a hundred or more copies of statues, busts and vases, first in the Stock-im-Eisen-Platz (near St. Stephen's Cathedral) and about 1795 in the Kohlmarkt (near the Imperial Palace). He called his *Glyptothek* and *Panopticum* the "Müller'sche Kunstgallerie", but it

<sup>1</sup> 'The Music Review', August 1944, pp. 189-90; 'The Musical Times', January 1947, pp. 11-14.

became more and more of a wax-works cabinet, like Madame Tussaud's later establishment in London. In both types of exhibition Deym was a forerunner of nineteenth-century experiments, although Madame Tussaud's uncle, Christopher Curtius, also opened a wax-works cabinet in Paris about 1780. The gallery, including some pictures (copies) and several wax groups of erotic interest, finally moved in 1798 into a splendid building Deym-Müller had built for himself near the Rotenturmtor on the Danube Canal. The "Müller'sche Gebäude " kept its name long after the gallery had vanished, from about 1820, when its hall was used as a ballroom and concert-hall, until as late as 1889, when the house was finally demolished.<sup>2</sup>

Among the wax portraits exhibited between 1790 and 1800 were the whole royal family of Naples in full size, the Emperor Francis on horseback and several Austrian generals. Among the plaster copies was the Laocoon group, the Medici Venus and the Venus of Knidos. The first music automaton we hear of was attached to the "Bedroom of the Graces". A Viennese directory of 1796 describes it as follows:

In the famous Bedroom of the Graces stands an elastic bed<sup>3</sup>, gently illuminated in the evening by alabaster lamps, with a fair sleeper on it, and behind it resounds the most enchanting music, especially composed for the place and for the exhibit. In a niche 18 feet high stands the Venus Kallipygos, excellently coloured, by means of cunningly placed mirrors representing the three Graces, after whom the bedchamber is named.

The hair and clothes of these wax figures were real. Among the automatons was a writing-machine. There was also an anatomical figure of a pregnant woman that could be taken to pieces, which in 1791 brought the police to the gallery without detriment to the business. In 1795, in fact, Josef Müller received the title of Imperial and Royal Moulder and Sculptor, and later that of chamberlain.

In 1799 the gallery was visited by Countess Brunsvik and her two daughters, Therese and Josephine<sup>4</sup>, who are well known from Beethoven's biography. Deym, reassuming his original name, married Josephine a month after their first meeting. The marriage was not a success. Furthermore his fortune soon diminished in the new house. He died as early as 1804, during a visit to relatives in Prague. His widow was adored by Beethoven, her teacher, and she gave musical parties in her splendid house. She married again, and

<sup>\*</sup> Cf. Theodor Frimmel, in 'Alt-Wiener Kalender' (Vienna, 1922), pp. 128-35. The story of Deym's Gallery as told there is incomplete.

<sup>&</sup>lt;sup>8</sup> This resembled an object in Dr. James Graham's cabinet in London, where Emma Lyon appeared in 1780.

<sup>&</sup>quot; Cf. La Mara, " Beethoven und die Brunsviks ' (Leipzig, 1920).

after her death in 1821 the gallery was partly disposed of and partly destroyed. Not a particle of the mechanical organs survived.

Between 1804 and 1819 the gallery was carried on by Deym's widow and by Antonia Sacchetti, a stage painter. During the Vienna Congress of 1814-15 it was still very famous, so that at the banker Arnstein's house *tableaux vivants* were arranged in imitation of Deym's wax-works groups.<sup>6</sup> Already in 1814, however, some of the exhibits were sold by auction, and in 1819 the gallery quietly came to an end.

Besides several advertisements in Viennese newspapers, there is a description of the gallery, by "C.M.A.", in two editions dated 1797 and 1814.<sup>6</sup> It gives the following descriptions under the head of "Mechanical Clocks" (*Spieluhren*):

... a bracket-clock [Pendile, i.e. pendule], eight fect high, running uninterruptedly for eight days and playing on steel rods twelve different pieces;

... a lady en négligée [sie] and modelled life-size, scated at the pianoforte, on which lies the apparatus required for playing; she touches the keys with her fingers, and one is frequently deceived with the more certainty when the adjoining magnificent clock, which is in a well-gilt case, announces the quarter-hours with its chimes, but the hours with the pianoforte itself;

... an ingenious apparatus representing Pan with goats' feet and horns and distinctly blowing sundry merry shepherd's ditties on its nine-note Pan's pipes;

... a pyramid nine feet high ... with a precious clock, which plays the flute most deceptively;

... another elaborate clock ... with two boys in Spanish clothing seated on either side and at each hour blowing a different duct on their flutes;

... an automaton dressed as a Spaniard, blowing the flageolet;

... the Bedroom of the Graces ... flutes and a pianoforte play, now by turns, now together, and again both mingling their unadulterated sounds with other musical instruments and representing a full concert;

... a mechanical canary bird . . . pipes several neat pieces very clearly and distinctly;

... a mechanical art clock ... which strikes quarters as well as hours and accompanies them each time with chimes ... two choirs of trumpets and drums parade in the background.

What most concerns us, however, is the unknown author's description of the group which Deym called "Laudon's Mauso-

<sup>6</sup> Giulietta Guicciardi, cousin of the Brunsvik sisters, posed as Niobe at Pistyan in 1802, also taking Deym's plaster copy for her model.

\* Both editions are in the Vienna City Library; the second is slightly abridged.

. leum "? and advertised in the 'Wiener Zeitung' on August 17th 1791 together with Mozart's Funeral Music (K.594):

No. 37. A magnificent Mausoleum crected in honour of the great Emperor Josef and Field-Marshal Laudon. It represents a temple poised on blue columns with finely gilt capitals and architectural decorations. The temple, as well as its principal structure, appear pictured in white marble, the blue fillings as well as the beautiful arabesques thus making a particularly good effect. In the background we see, as though in a magic mirror, the immortal Josef in Laudon's company. They are engaged in an intimate Elysian colloquy. Before them on a pedestal stands a fiery urn that throws a gentle but quite perceptible glow over them. At the base of the pedestal sits, mourning, a little Turkish girl brought back by the Field-Marshal from Belgrade and subsequently adopted as a daughter. To the right, at the plinth of the temple, sits the genius of Austria, clasping, in tears and deeply moved, the urn containing the hero's heart. In the foreground, at the entrance, stands Mars in iron armour, with bowed head. He leans upon his naked sword and appears to be profoundly affected by the loss of the hero. On the frontispiece<sup>8</sup> are the great warrior's well-merited victory trophies together with his laurel-wreath, and in its centre is a clock whose pendulum represents a sun made of pierres de Strasse, which by its motion, particularly at night, produces a most excellent effect. Each hour a suitable funeral music, especially written for the purpose by the unforgettable composer Mozart, is to be heard, which lasts eight minutes and in precision and purity surpasses anything that was ever attempted to be suitably applied to this kind of artistic work.

According to the advertisement Laudon's Mausoleum was exhibited in the third room at the Stock-im-Eisen establishment. "While the whole is beheld one is surprised by a choice funeral music of the composition of the famous *Kapellmeister* Mozart, wholly appropriate to the object for which it was set". Mozart entered this piece in his catalogue at the end of the year 1790, but without any indication of month or day. If he really finished the music in 1790, the delay in exhibiting the Laudon group may have been due to technical reasons.

Mozart's Fantasy was thus written in December 1790 for a joint memorial to the emperor and his field-marshal, who had died that year on February 20th and July 14th respectively.<sup>9</sup> Laudon took Belgrade in 1789.

<sup>1</sup> It may be worth noting that Haydn's Symphony No. 69, dating from 1779, was named in honour of the same general.

• The actual word used in the German original.

\* A contemporary report called the music Mozart's "Mourning Cantata on Laudon's death " (\* Vertraute Briefe zur Charakteristik Wiens ' [Görlitz, 1793], II, pp. 59(.).

Another description of the Laudon group, which appeared in 1799, is to be found in Josef Richter's popular magazine in the Viennese dialect<sup>10</sup>:

The funeral monument to the great Ceneral Laudon may also be seen in life-size. Then, right at the end of the hall, are the Elysian Fields, where the late Emperor Josef promenades about with Laudon. 3

The same magazine wrote in 1804<sup>11</sup>:

Our elegant ale-houses too become beautified from day to day. Mine hosts are even procuring valuable mechanical clocks, and these play the most beautiful little pieces to the guests, so that they may drink beer in strict time. One of these gentry, for instance, has among other things the Emperor Josef and General Laudon, each of whom bears a fine clockwork in his chest; and indeed they must often pull long faces when the guests kick over the traces and are minded to remain squatting in the ale-house till after midnight.

The ale-house group may have been an imitation of Deym's original; but one wonders how the landlord distributed Mozart's music between the two heroes: did he give the Adagio to Joseph and the Allegro to Laudon, or vice versa?

We have one more description of Deym's gallery attributing a piece by Mozart to a certain exhibit. The record of 1801<sup>12</sup> tells us that the music for the "Bedroom of the Graces" was also his:

A glorious flute music, as though inspired by the breath of love, resounds, without its being possible to tell whence the magic notes come. It is an Adagio by the unforgettable Mozart.

Alfred Einstein, whom I consulted in the matter, suggests that the music for this room was nothing else than the Adagio and Rondo for harmonica, flute, oboe, viola and cello (K.617), written on May 23rd 1791 for the blind virtuosa Marianne Kirchgässner and played by her on August 19th of the same year at the Vienna Opera. The Adagio, says Dr. Einstein, is in essence a dialogue between celesta and flute, and the Rondo may be said to represent "a full concert", as the description of 1797 tells us. Mozart apparently gave the music to Deym after it had served as a harmonica quintet. Thus Deym obtained four pieces for his mechanical organs.

It seems impossible to ascertain to which items in the gallery the other two pieces by Mozart belonged. J for one should choose

<sup>&</sup>lt;sup>10</sup> Die Eipeldauer Briefe ', ed. by E. von Paunel (Munich, 1918), II, p. 11.

<sup>11</sup> No. 29, second letter, pp. 14f. Not reprinted in Paunel's edition.

<sup>14 &#</sup>x27; Neuestes Sittengemählde von Wien ', (Vienna, 1801), Vol. I, p. 38ff.

the lady at the pianoforte for the Andante (K.616). It is now clear that only the Fantasy (K.594) belonged to the "Mausoleum", but we cannot guess for what group the 'Organ Piece for a Clock ' (K.608) was written. Mozart in his catalogue describes the three works as follows: K.594, "A Piece for a Mechanical Organ in a clock"; K.608, as mentioned above; and K.616, "for a Cylinder in a Small [mechanical] Organ".<sup>13</sup>

As regards Deym's relations with Mozart, we know that Leonhard Posch, the sculptor who in 1788 made a relief of Mozart, worked for the count, and it may be that he introduced Mozart to him. It is recorded, furthermore, that Deym took Mozart's deathmask; but not that he exhibited it or used it for a wax portrait in his gallery. Mozart's widow is said to have kept the mask and to have broken it in the end. The fact that Beethoven owned the autograph of the Fantasy  $(K_{1,504})$  and the manuscript copy of the organ piece (K.608) may be explained by his relations with the Brunsviks. In 1799 he wrote his variations on ' Nähe des Geliebten ' for planoforte duet into the two sisters' album. At the back of the autograph, found among his remains, was an Adagio, Scherzo and Allegro noted on four and two staves respectively. These pieces also were apparently written for Deym's mechanical organs. Deym just failed to persuade Hayda, the most expert among the three masters in this matter, to work for him too.

<sup>12</sup> Mozart, in his letter of October 3rd 1790, to Constanze, calls Müller-Deym the Uhrmacher. This has sometimes been translated as "watchmaker", but the real meaning is "clockmaker", Uhr being in this sense a Spielakr or Spielaerk (musical clock). Many of Deym's mechanical organs were connected with chronometers. Some of his contrivances may have been nuisical boxes.

MEMBER JOHN GOODACRE Jnr. has found the following interesting reference to the use of a barrel-organ in a work entitled 'The Possibility of Approaching the North Pole asserted by The Hon. D. Barrington' published in 1818:

"A barrelled organ, which plays a few country dances, might amuse during the dark months, and also be of use in the first intercourse with the savages, musick being a sort of universal language: and Sir Francis Drake, for that reason, carried musicians with him"

Such an instrument was, in fact, taken on the Scott Polar Expedition. The organ remained in existence in the Expedition Museum at Cambridge until comparitively recently when, because of deterioration (it had been restored since the War), it was destroyed.
Book Review

## CHURCH AND CHAMBER BARREL-ORGANS BY The late CANON NOEL BOSTON M.A., F.S.A., M.M.C.M., HON.F.A.M.S. AND LYNDESAY G. LANGWILL HON.M.A., HON.F.T.C.L.

WORK of singular interest to those who love the barrel-organ is the culmination of much study by that scholarly and enthusiastic amateur musicologist, Lyndesay G. Langwill. His earlier works, devoted to orchestral wind instruments and in particular the bassoon, are already acknowledged as being volumes of outstanding reference value. Langwill has searched for us and listed almost every maker of wind instruments in the world, past and present. That he should now focus his talents anew and produce a volume on that much-maligned but nevertheless important instrument, the British barrel-organ, is to our lasting benefit.

A member of the Musical Box Society of Great



Britain, Mr. Langwill has obviously put a great deal of effort into this book, and has succeeded in spite of difficulties which might have deterred a lesser man. His co-author, Canon Noel Boston, died on holiday last year when only part of his contribution had been accomplished, so throwing the task of completion and publication entirely upon his shoulders. The result is a deserved success.

The work is divided broadly into five sections. the first and major part being a description of the instrument and its later developments as well as its early history. A list of British makers of mechanical organs and barrel-pianos follows and then there is a county-by-county listing of barrelorgans past and present. A comprehensive list of tunes, both religious and secular is followed by a list of places and collections where surviving barrel-organs and suchlike can be seen today. The There are many excellent illustrations. emphasis on the church barrel-organ is of necessity since the instrument emanated from an ecclesiastical need, but the inclusion of an account of its secular uses and many of the lighthearted melodies which they played embraces the whole history of this offspring of the King of Instruments, eulogised by Balzac and countless others.

For the technically-minded, a description and drawing of the workings of the barrel-piano and barrel-organ along with their subsequent developments has been contributed by Mr. Arthur Ord-Hume. What criticism there is - and no work has yet appeared which may entirely satisfy the critic lies in the admixture of text and illustrations which tend to break up still further an already necessarily broken up work. Whilst the makers list is admirably comprehensive, and itself contains a great deal of interest to the enquiring reader, it might have justified a more readable typography.

Langwill sketches in the early days of the barrel-organ, revealing to us the surprising antiquity of the instrument, and then tells us just why it was to fulfil such a long-felt want more than two hundred years ago.

The book is good reading matter, profoundly thorough and interesting to the enthusiast and an invaluable authority on a subject which, to the best of my knowledge, no other work exists.

R.A.

LIMITED EDITION OF 1,000 COPIES. Royal Quarto. 128 pp. Price £2:10:0 Mr. Keith Harding of Keith Harding Antiques, 93, Hornsey Road, London, N.7. writes:-

On page 190 of Volume 2 of The Music Box you illustrate the tune sheet of a 6 cylinder revolver mandoline musical box made by Nicole Freres and belonging to Gerry Planus. In your caption you state that "the significance of the added legend "16p. 241." is unknown but probably relates to the type of music performed."

In fact this legend stands for "16 pouces 24 lignes" and is a measure of the effective dimensions of the two-piece comb. The pouce is the French inch, or literally "thumb" and is equivalent to 1.066 English inches. Maybe the French have bigger thumbs than we have. The pouce is divided into twelve lignes, thus 24 lignes would be 2 pouces, or 2.132 English inches. It was a convention to give length in pouces and width in lignes to avoid confusion. I have verified these measurements on the box in question.

Most tune sheets also list the "gamme" number, which is a reference number for the tuning scale of the comb. "Etouffoirs en Acier" means dampers in steel. Incidentally, we have restored a considerable number of Thibouville Lamy boxes since you last listed the characteristics of this make on page 125, volume two, and have found that where the original dampers are present they are often of brass held in with steel Some boxes have had steel dampers pins. soldered on by later repairers, but usually traces of original brass dampers have remained in the Can anyone make head or tail of the holes. Thibouville serial numbers which appear to bear no relation to the date of the box? Could it be an indication that several makers are involved?.

#### Jack Tempest of 27, Cringle Hall Road, Burnage, Manchester, 19. writes:

I have unearthed a local with a collection of about 90 boxes but he is not interested in joining the Society. He has a box which plays bird calls on a steel comb. Just like a musical box but with a 'voiceless' singing bird which does antics as the trills are played on the comb. I think it is called a "Bird Chanter". It looks late Victorian but I haven't heard of anything like this before and other collectors are mystified when I mention it. Do you know anything about it?

EDITOR'S COMMENT. I have heard of combplaying singing bird movements but have certainly never seen one. Whether 'late Victorian' or

## LETTERS TO THE EDITOR

otherwise, it is undoubtedly a rarity. Can any other Member shed any light on these? In the interim, perhaps Mr. Tempest can be prevailed upon to obtain a photograph of the instrument for reproduction.

It is interesting to note that the bird, with its almost infinite complexity of movement and song, was quite the most prolific example of automata based on living creatures. Sound was produced (in the case of the majority of these) by an adjustable whistle or miniature pipe and nearperfection was achieved in many by makers from 1750 onwards. Whilst the combination of bird and song was common, a number of fine, late specimens were made without the bird, being just plain boxes containing the bird-song movement. These were known as the 'Chant du Rossignol' and a particularly fine specimen is in the collection of our Secretary, Cyril de Vere Green. The standard form of singing bird is still made to this day, there being made in Germany richly ornamented cases with the usual type of oval hinged lid in the top through which the bird appears to sing its song. The movements of these birds are far less complicated than those of the older examples. Birds in hanging cages are still made and are still popular and, indeed, for those who want to 'make' their own singing bird, some 'do-it-yourself' shops will sell you a cheap, stylised modern mechanism to build into your own box. The work of Member Peter Ward of Grantchester has already been mentioned in an earlier issue: he bas built a snuff-box type of singing bird modelled on an early craftsman's piece. The finished item, almost indistinguishable from an 'antique' is a brilliant piece of handicraft.

More letters on Page 202

#### NOTICE

Mr. de Vere Green has received back from Baud Freres a re-pinned musical box cylinder belonging to a Member of the Society. Unfortunately, he is unable to identify to whom the cylinder belongs. Someone has a cylinder-less box and he has a bright, bristling, tuneful cylinder! If you have sent our Secretary a cylinder for pinning, and if you are still waiting for it, please get in touch with him at once.

## LIST OF MEMBERS

- 306 P.H.J. Baker, 362, High Street, Brentford, Middlesex.
- 307 T. Raggett, 527, Holloway Road, London, N.19.
- 308 A.E. Jones, "Three Ways", Market Street, Hambleton, Nr. Blackpool, Lancs.
- 309 Julian Hunt, 52, Canonbury Park North, London, N. 1.
- 310 The Director, Department of Science & Industry, City Museum & Art Gallery, Newhall Street, Birmingham, 3.
- 311 Frank Vogel, 5, Henley Lodge, Selhurst Road, London, S.E. 25.
- 312 R. Williams, 62, Kingswood Road, Kingswinford, Staffordshire.
- 313 Dr. A.J. Costello, 16, Ellington Road, London, N. 10.
- 314 Baron Alexander V. Hodenberg, 565, Solingen-Ohligs, Haus Hackhausen, Germany.
- 315 E. Mould, 19, Dunbar Road, Talbot Woods, Bournemouth, Hampshire.
- 316 R.G. Miller, Prestwood House, Ifield, Sussex.
- 317 J.M. Fitzpatrick, 117, Iverson Road, West Hampstead, London, N.W.6.
- 318 Bryan Jackson, 228, Marua Road, Mt. Wellington, Auckland, New Zealand.
- 319 J. Warburton, 180, Chapel Street, Leigh, Lancashire.
- 320 Leicester Museum & Art Gallery, New Walk, Leicester.
- 321 J.S. Donovan, Manchester Hotel, St. Michaels Road, Bournemouth, Hampshire.

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172 D.G. Evans, 6401, Boulevard East B. 1, West New York, New Jersey 07093. U.S.A.

## CORRECTION TO CHANGE OF ADDRESS

#### 291 G.J. Goodacre, The White House, Ashby Parva, Nr. Rugby.

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#### ANNOUN CEMENT

de la pers

The Musical Box Society International of America has questioned the statement which we print on the rear cover of THE MUSIC BOX, viz. we publish the only journal anywhere in the world devoted solely to musical automata. The American Society does, in fact, publish a Bulletin five times a year and has done so for some years. When first we made this statement, our Journal did hold a unique position but a recent change in editorial policy has developed the American Society Bulletin into a publication which can justly qualify for recognition amongst collectors and enthusiasts alike. Quite naturally, we enjoy the friendly spirit of rivalry between our two publications and accept that our statement, printed on our covers for this year, is no longer applicable. Unfortunately, the same back cover states that Associate Membership costs \$9. This should, of course, read \$6.

THE MUSIC BOX is designed by Arthur W.J.G. Ord-Hume and printed by Search Press, 59, West Cromwell Road, Landan, S.W.5. and published four times each year by The Musical Box Society of Great Britain at 11 Devonshire Place, Wimpole Street, London, W.1. Text VariTyped by Montagu Watson, 40, Buckingham Mansions, West End Lane, London, N.W.6. Autumn 1957

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