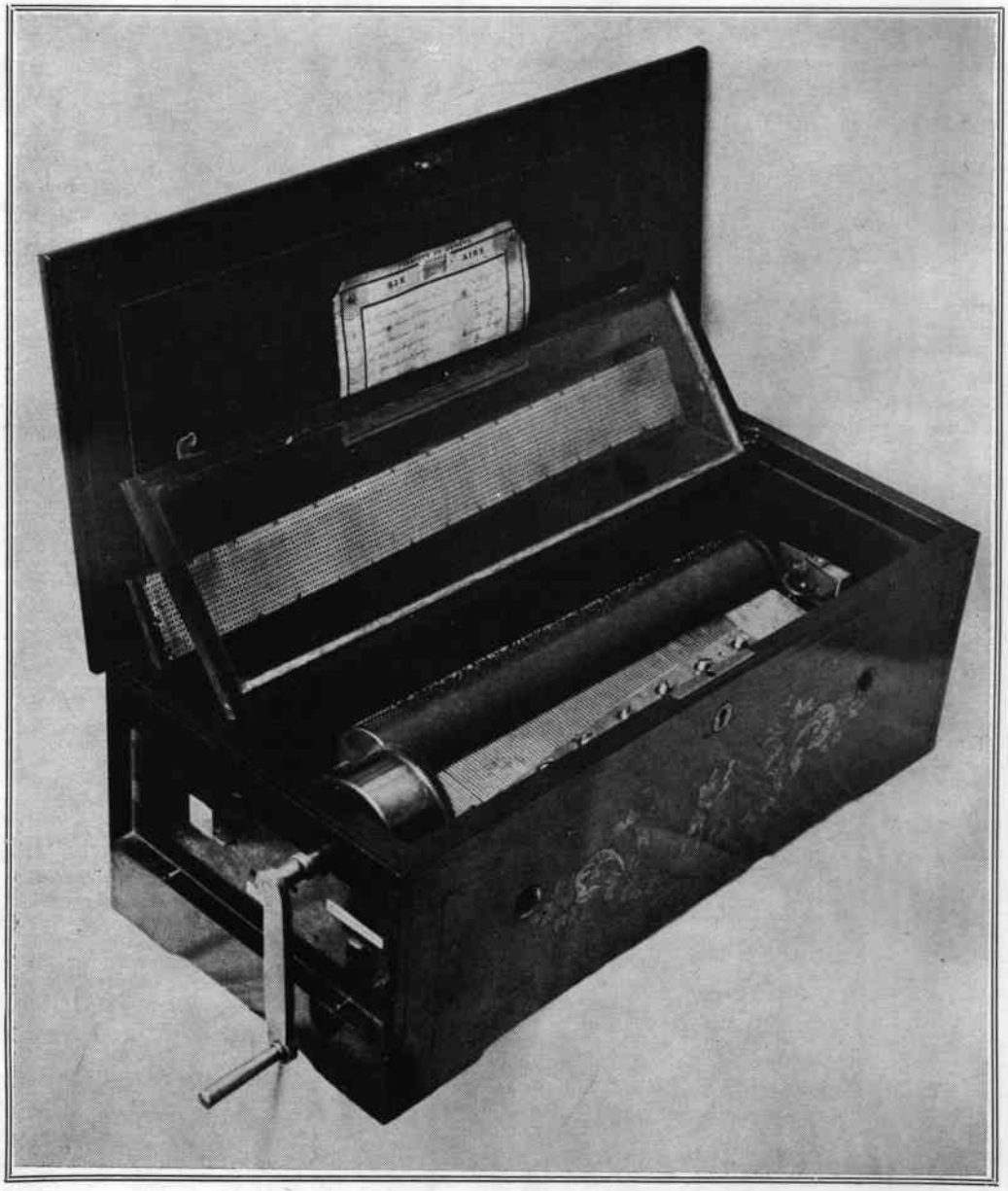
The Music Box

an international magazine of mechanical music

THE JOURNAL OF THE MUSICAL BOX SOCIETY OF GREAT BRITAIN

Volume 7 Number 6 Summer 1976



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The Editor writes. . .

THE purpose of this column has always been reserved for those comments, expressions of hope, encouragement — and despair — which the holder of the office of editor has chosen to commit into print. Indeed, editors and their comments are, in some circles, something of a joke in the world of publications. Only, perhaps, in The Times and the New York Times do the editorial leaders actually get read. For the rest, then, it is an editor's vain hope that his carefully-chosen words get looked at at all.

Well, this time there is a change because of the anomalous situation which has arisen. This time, then, this column doubles as a message from your new President.

With the exception of seven issues between 1971 and 1973 which were ably edited by Graham Webb, I have held the office of editor from the formation of the society when, with a score of musical box enthusiasts, everybody knew everybody else. The one man who did so much not just to bring about the formation of the Musical Box Society of Great Britain was Cyril de Vere Green who, in addition to his growing professional duties, which were to include the office of Dean of the Dental College at University College Hospital and, even later, a leading member of the Executive Committee of the International College of Dentists, took up the office of secretary.

By the autumn of 1969 it was becoming impossible for him to devote the time needed to our society and so he resigned. Happily, at the Annual General Meeting of 1971, he returned to the office of President, a position he has held until this summer. At last, though, increasing pressures from his professional work have forced his retirement.

It was discussed by the Executive Committee as to who we might put forward as a successor and, in the light of no other nomination forthcoming, I agreed to serve as President, thereby creating the unusual situation of holding two offices, that of Editor and President. Because a dual office would necessarily diminish the number of the Committee and in order to ensure a broader representation, it was decided to increase the number of officers on the Committee to ten by the election of four instead of two ordinary members.

To accede to this high position is, in itself, a daunting proposition. But to accede to the office which has so masterfully been the domain of Dr Cyril de Vere Green is even more testing. Nevertheless, rest assured that having been elected to this office, I shall do all I can to further the society and its interests.

Let me remind you of the previous incumbents to this office. Our first President was **John E T Clark** (1962 to 1965); **Dorian Dinsmore** (1965 to 1966); **Robert Burnett** (1966 to 1971); **Cyril de Vere Green** (1971 to 1976).

During the years in which our society has operated, it has become more and more noticeable that our many members throughout the world share an interest in the whole fascinating variety of mechanical musical instruments, not just musical boxes. It was solely as a result of this that it was decided to put before you the suggestion that we should change the name of the society to something more descriptive of the activities

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MOZART'S MUSIC FOR ORGAN CLOCKS

by Alexandr Buchner

AMONG the very many compositions of Wolfgang Amadeus Mozart are three little fantasias for mechanical organ, K.594, K.608 and K.616. In this article, translated from the Czech by Richard Kahane, Alexandr Buchner describes the circumstances surrounding the writing of these pieces

IN THE 1780s a man named Josef Müller arrived in Vienna from Italy with a great quantity of baggage. He found a house on the "am Stock-im-Eisen-Platz", and not long afterwards a sign appeared above the entrance: "Müllersche Kunstgalerie" (Müller's Art Gallery). The gallery contained plaster of Paris casts of the ancient statues, busts and vases of Sir William Hamilton*. This exhibition was moved to the Kohlmarkt (Coal Market) in 1795 and less than three years later to a magnificent building which Muller had built near the Rotenturmtor (Red Gate). Here, for greater appeal, the gallery was expanded to include wax figures, portraits of famous persons, and mechanical musical instruments.

Josef Müller, whose real name was Josef Count Deym of Stritez, was born in Bohemia and had been an officer in the Austrian army. Forced to flee Bohemia because of a duel, he had adopted the name of Müller. His talent for modelling and sculpture enabled him to set up the art gallery, in which the so-called "Room of the Three Graces" drew special attention. Its spell was heightened by the music of an organ clock, playing music composed by Wolfgang Amadeus Mozart.

Organ clocks were mechanical musical instruments with small clockwork-driven pipe organs, the controlling mechanism being set in motion at fixed intervals according to the clocks attached to them. They were in great favour from the second half of the eighteenth century, right up to the Beidermeyer period. Arrangements of overtures, operatic arias, portions of flute concerts and sonatas, marches, and dances — these were the pieces which the cylinders of the organ clocks would play. But the program of compositions played was not limited only to arrangements of existing works and popular pieces; it also included musically-valuable pieces especially composed for the organ clocks.

*Sir William Hamilton was the English Ambassador at Naples, an archaeologist and the husband of Emma, Lady Hamilton, mistress of Viscount Admiral Horatio Nelson. Hamilton died in 1803, Nelson in 1805, and Emma in 1815.

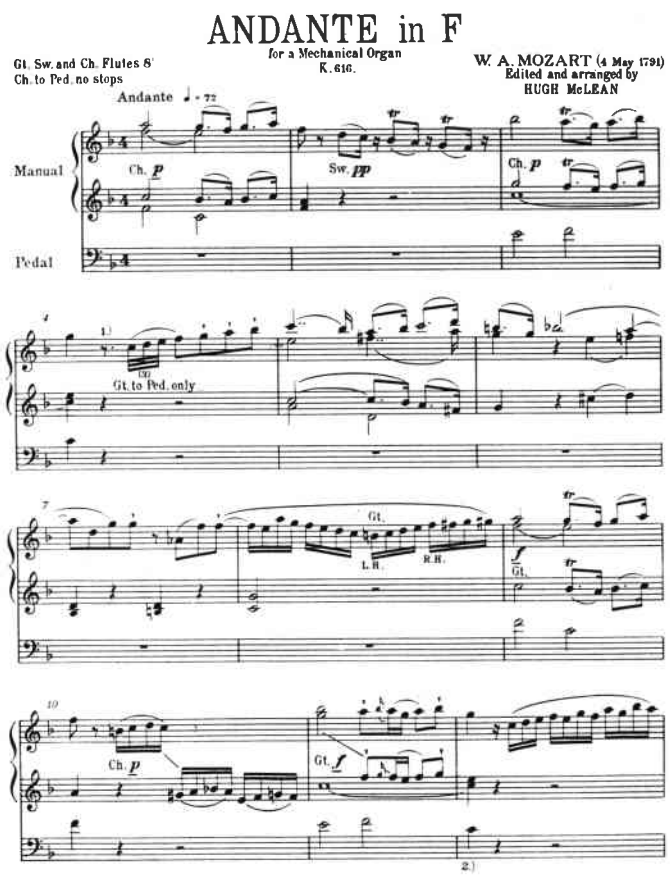
"Great Distaste"

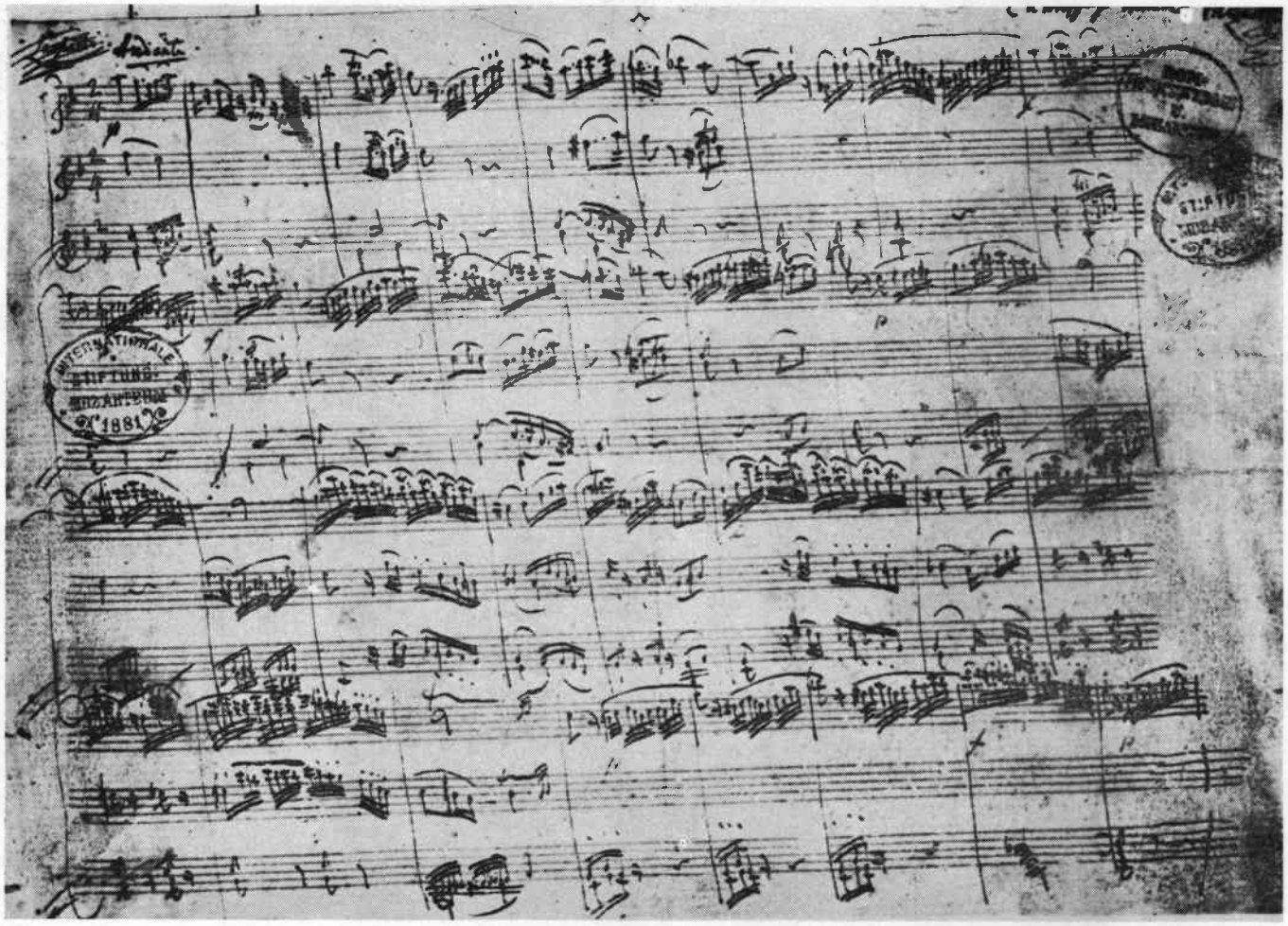
Until recently, it has been overlooked that in the last two years of his life, Mozart also composed music for these mechanical musical instruments in order to try to improve his unsatisfactory financial situation. Mozart began to write the first composition, entitled *Adagio and Allegro* (K.594) with great distaste—as a letter written to his wife on October 3rd, 1790, testifies[1]—and he finished it after his return to Vienna from Frankfurt in December of that year. He listed it in his own thematic directory under Number 122, as "A Piece for an Organ Work in a Clock". Several reports give the particulars of the reasons for the composition of this piece[2] and they agree that it was intended as a funerary composition for the mausoleum dedicated to Josef II and Field Marshal Laudon which Müller had built in his art gallery.

The second piece (K.608), inscribed in Mozart's thematic directory under Number 131 and entitled *Organ Piece for a Clock*, appeared on March 3rd, 1791. It is a fugue fantasy, written — as was the first composition — in F minor. The third piece (K.616), the manuscript of which is in the Salzburg Mozarteum, was written on May 4th, 1791, at which time Mozart was already working on *The Magic Flute*. This manuscript is interesting for several reasons.

First it shows that Mozart took

Reproduced with acknowledgement to the Oxford University Press is this, the first page of Hugh McLean's edited arrangement of Mozart's Andante in F (K.6.6). Published by the OUP as part of its Oxford Organ Music series, the note values of this edition have been doubled and "redundant accidentals" have been removed. This score cautions against the use of 16ft stops, recommending flute stops of 8ft with and without upper work.





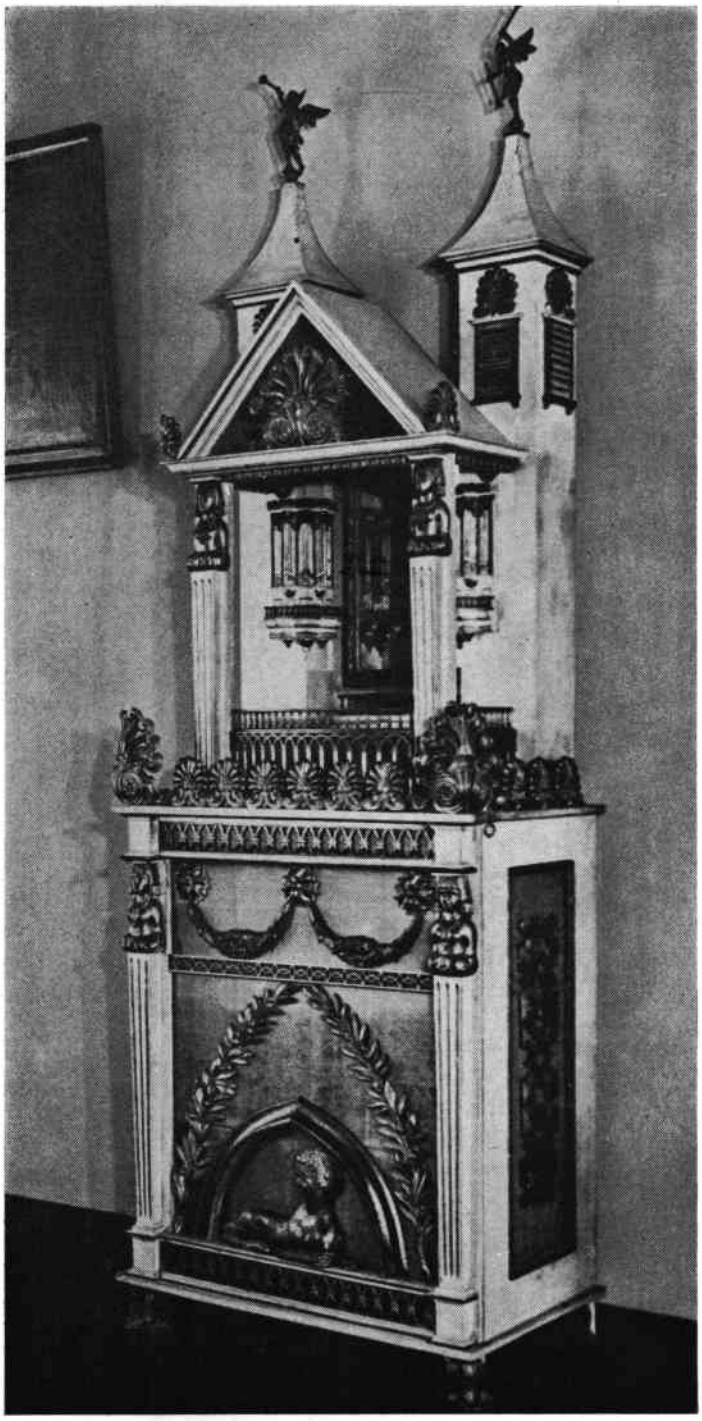
The original manuscript of K.616 in the hand of Mozart and reproduced with acknowledgement to the Internationale Stiftung Mozarteum in Salzburg. The MS is approximately $9\frac{1}{16}$in × $12\frac{1}{4}$in (230mm × 310mm) and this first page, above, shows bars 1 to 33. Four pages comprise the MS ending on bar 144. The original tempo is shown as *Larghetto*, but Mozart replaced it with *Andante*. The original has a compass of 41 notes.

into account the technical limitations of the mechanism by noting a twofold possibility of shortening the composition at the beginning, in case the whole piece could not fit on the cylinder. The dynamic marks stand out, as well. That is to say, mechanical organs did not allow for a dynamically graduated performance, and this situation was certainly known to Mozart. Therefore, the original provenance of these marks is questionable. Formally, this *Andante* is a combination of sonata and rondo elements, where the rondo factor is more strongly emphasized by the fact that in the reprise, the principle of transposition is not observed, but a scaled arrangement of the exposition is allowed. This touching composition in F major, listed in Mozart's thematic directory under Number 137, as "For a Cylinder in a Small Organ", was transposed in a somewhat shortened version to the cylinder of an organ clock which is today in the Museum of Musical Instruments of Leipzig[3]. That the owner of an organ clock asked Mozart for original music for a musical cylinder is no less interesting than the fact that Mozart, taking into consideration the reproduction possibilities of mechanical performance, attempted in these compositions to create *a particular style of mechanical music* which differs from the style of his other works.

Beethoven's Involvement

When Müller moved his growing collection to the new building near the Red Gate in 1798[4], he married the Hungarian Countess Josefina Brunswick, the sister of Beethoven's friends Franz and Teresa Brunswick, and he once again took up the name of Count Deym. Thus, Deym-Müller came into contact with Beethoven, and it is not impossible that he asked the then already famous composer — as he at one time had asked Mozart — for compositions for his musical clocks. Beethoven's biographers Georg Kinsky[5] and Georg Schünemann[6] assume that Deym had given Beethoven as a model the manuscript of Mozart's *Fantasia in F Minor*, which was purchased from Beethoven's estate in 1827 by the well-known Viennese publishing house Artaria, which published a great deal of Beethoven's music. This Mozart composition so pleased Beethoven that he recopied it in his own hand. Further documenting Beethoven's relations with Deym, it is known that Beethoven's compositions for organ clocks are in the same notebook as are four of the six variations on the theme of Goethe's song *Ich denke Dien*. It is only thanks to Professor Dr A Kopfermann that three other compositions in Beethoven's notebook have been identified as compositions for mechanical instruments. The first of these, the outstanding *Adagio in F Major*, strongly resembles Mozart's *Fantasia in F Minor* in the manner of its notation.

A Mozart composition for an organ clock came to be played on one occasion under very moving circumstances. The creator of *Don Giovanni, The Magic Flute, Requiem*, and other gifted works did not foresee that the owner of Müller's art gallery would come to his bier to take his death mask



Preserved in the Karl Marx University, Leipzig, is this flute-playing clockwork organ which dates from about 1810. Its barrel is pinned to play Mozart's Andante in F (K.616).

for an exhibit which replaced the Laudon mausoleum. Deym himself died in 1804 while travelling to Prague to visit his relatives. Unfortunately, the organ clock which had played the original Mozart compositions was not preserved.

The compositions were, however, published on innumerable occasions: K.594 in a version for piano for four hands by Breitkopf and Härtel (*Oeuvres, Cah 7, No 1*), at the same place in a new edition as *Sonata for Pianoforte for Four Hands* (*No 3*), further by T Haslinger in Vienna (*Piano Works, Book 20, No 3*), by J Andre in Offenbach (*Anhang, No 14*), and by Peters in Leipzig (*Four Sonatas, etc, No 6*). K.608 in Mozart's arrangement for piano for four hands was issued by the following publishers: Breitkopf and Härtel (*Partitur-Bibliothek No 1126 and Oeuvres, Cah 8, No 2*), T Haslinger (*Piano Works, Notebook 21, Fantasia No 3*), J Andre (*Anhang, No 16*), Peters (*Four Sonatas, etc, No 16*), and originally J Traeg in Vienna in 1799. The composition K.616 was published by Breitkopf and Härtel in the collected edition of the works of W A Mozart (*Series 10, No 20*), in the Partitur-Bibliothek (No 1127), in Oeuvres (*Cah 6, No 3*), and later in a new edition (*12 Piano Pieces, No 1*), by T Haslinger (*Piano Works, Notebook 31, No 4*), by Peters (*Fantasias, etc, No 19*), and by N Simrock in Bonn (*No 71*).

NOTES

1. "Ich habe mir so fest vergenommen, gleich das Adagio für den Uhrmacher zu schreiben, dann meinen lieben Weibchen etwelche Ducaten in die Hände zu speilen; that es auch—war aber, weil es mir eine sehr verhasste Arbeit ist, so unglücklich, es nicht zu Ende bringen zu können—ich schreibe alle Tage daren, muss aber immer aussetzen, weil es mich ennuirt—und gewiss, wenn es nicht einer so wichtigen Ursache willen geschähe, würde ich es sicher ganz bleiben lassen—so hoffe ich aber doch es so nach und nach zu erzwingen;—ja, wenn es eine grosse Uhr wäre und das Ding wie eine Orgel lautete, da würde es mich freuen; so aber besteht das Werk aus lauter kleinen Pfeifchen, welche hoch und mir zu kindisch lauten." (I have fixed in my mind to write the Adagio for the clockmaker (this refers to Count Deym—Editor) right away so as to give some ducats into the hand of my dear little wife, and I did it. However, because I am working under a lot of pressure I was so unhappy not to be able to complete it. I am writing all day on it but have to give up because it bores me and certainly if it was not so important a matter I would leave the whole thing alone. I hope, however, to be able to complete it sooner or later. Now, if it was a large clock and the thing sounded like an organ then it would please me. As it is, the work consists of small loud pipes which to me sound shrill and childish.) L Sciedermair: *Die Briefe W A Mozarts und seiner Familie*, 5 Tom, München-Leipzig 1914, Tom 3, pp 117 ff.
2. Wiener Zeitung of 17.VIII.1791, Dresden Anzeiger of 23.V.1924, and others.
3. Viz P Rubardt: *Führer durch des Musikinstrumentenmuseum der Karl Marx Universität*, Leipzig, 1955, p 69.
4. According to a communication from Irene Herzner of the Municipal Historical Museum in Vienna, the whole so-called Müller House burned down with its collections in 1820. This is inconsistent with the assertion by E Simon (*Mechanische Musikinstrumente fruherer Zeiten und ihre Musik*, Weisbaden, 1960, p 74) that after the death of Countess Deym, the children's guardian sold everything during the period 1821 - 23 and that the building was pulled down in 1889.
5. *Beethoven und die Flötenuhr* (Mit einem ungedructen Marsch des Meisters). Beethoven's Almanach, 1927, p 323.
6. In the introduction to the piano arrangement of *Pieces for the Playing Clock*, by L van Beethoven. Published by B Schott's Sohne, Mainz, 1940, No 2890.

For further information on Count Deym, see *Count Deym and his Mechanical Organs*, published in *Music & Letters*, Volume 29, 1948, and reprinted in *The Music Box*, Volume 3, pp 204 - 209.

WHO WERE THE BROTHERS LIMONAIRE ?

by Arthur W. J. G. Ord-Hume

TALK fair-organs to anybody and the name that springs to mind is Gavioli. Look up Gavioli and you will find a host of information about the son of a church organ-builder in Modena who went to Paris and made, if not exactly a fortune, then certainly some of the best of the French show organs. Of course, Gavioli was an Italian who adopted France as his home.

But there were other makers of equally-spectacular organs. Marenghi, for instance, or the brothers Gaudin who took over from Gavioli after his business finally foundered. Then there was Mortier, Hooghuys, Ruth, Wellershaus and the brothers Bruder. On all these craftsmen we know at least something of their history, background and family. One maker, however, has remained something of a mystery. This one is one of the very few French makers among a largely predominant Italian-sired industry. Not that this maker is in anyway inferior, or unknown, or unusual. In fact, quite the contrary. A wide variety of fine organs flowed from the Paris workshops bearing this famous name, and all were distinctive and beautiful. Considered by many to be more subtle and, dare one say it, musical than their contemporaries, the name and address of the maker is really all that is known. The name of the maker? Limonaire Freres.

Date founded

Who were the brothers Limonaire who laboured so long and so ardently to produce these fine instruments, yet who left behind them no recorded history, no first names and, apparently, no successors?

First what do we know about the date of foundation of the business? If we consult the German-published music trade directories of 1903 and 1909 we find that Limonaire Freres, then of 166 avenue Daumesnil in Paris, was established in 1846. If we now look at the London Post Office Directory for 1889 we find that Limonaire Brothers & Co was in business as the London branch of the French company. This short-lived enterprise—it seems to have operated for only a year—was run from 150 Great College Street, Camden Town. Here we find that the company was "Established 1840". An examination of a directory of the French music industry of the start of the present century revealed two other references to Limonaire which were contemporary with the Paris operation. The first was at Bayonne and the other was in Biarritz.

The Bayonne entry showed:

"Limonaire, F, 6 - 9 rue Thiers. Piano, harmonium, musical instrument and talking-machine agents. Also in Biarritz."

The Biarritz entry gave:

"Limonaire, F, 22 avenue Victor Hugo. Piano and musical instrument and talking-machine dealer. Branch of head office in Bayonne."

Was this any connection with the Paris Limonaire business? To begin with, Bayonne and Biarritz are almost adjacent coastal townships in the Department Pyrenees barely 20 miles from the Spanish frontier. It would be harder to find a place in France further away from Paris than these two small towns where the River Adour runs through the ancient Labourd region of Gascogne into the Bay of Biscay.

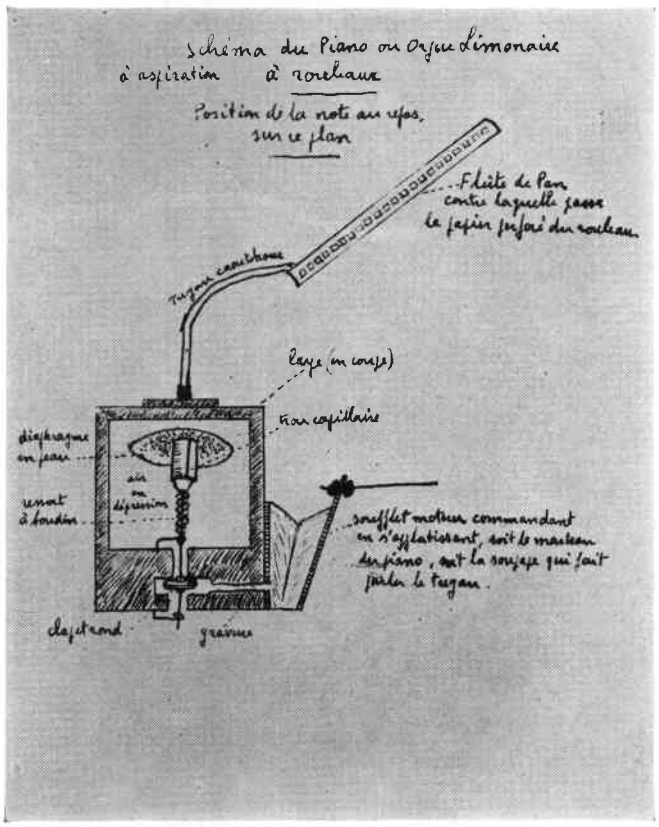
The first major clue came from Claude Marchal who said that he understood that a descendant of the Limonaire brothers lived in Saint Jean de Luz. The small seaside town of Saint Jean de Luz lies in the narrow margin of France between Biarritz and the Spanish border, Bayonne being only about six miles to the north of Biarritz. The area looked worthwhile exploring and so a start was made with telephone directories and at once the name Michael Limonaire turned up in Biarritz.

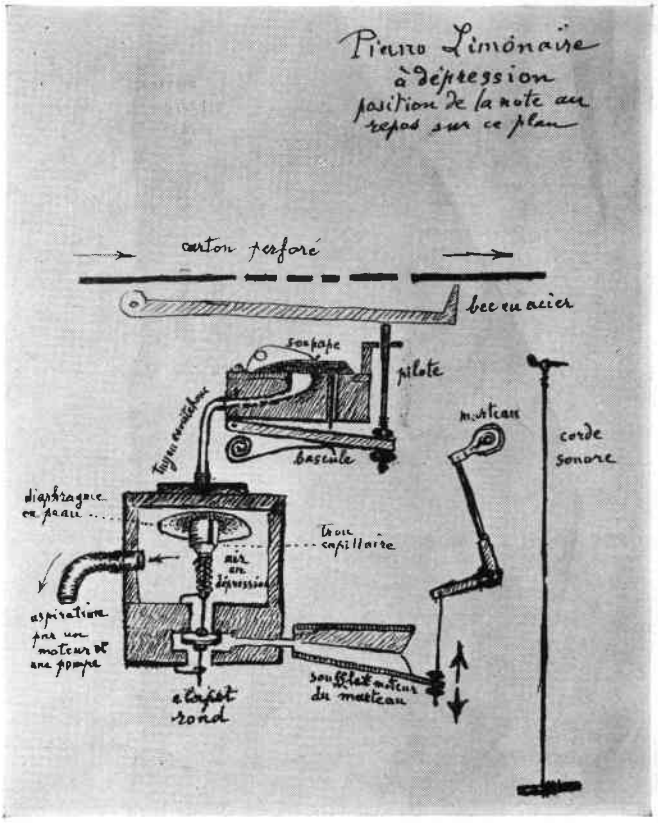
Through the collaboration of Mlle Suzanne Etchevers, a meeting was arranged with this man who turned out to be a descendant of the Paris organ-builders. He is a man in his fifties and operates a shop in Biarritz and another 50 miles away at Pau. He appears to be involved in a lot of musical activities, concerts, meetings and so on, and is a grand nephew of the Paris organ-builders.

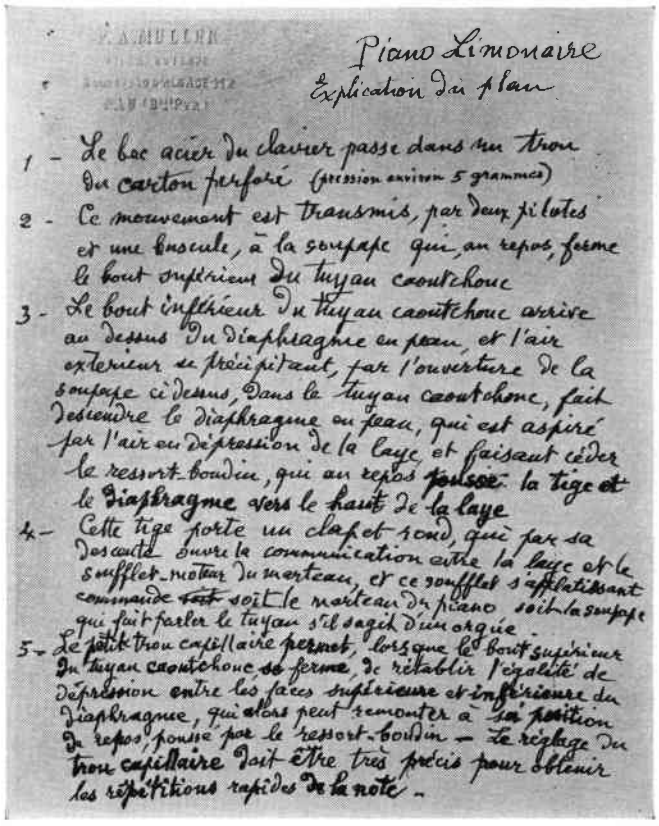
Pierre's notebook

Like so many distant relatives of former notable men, his knowledge of the activities of his forebears is scant. However, he has in his possession some pages torn from an old spiral-bound notebook which belonged to one Pierre Limonaire. These show the system of operation of the Limonaire pneumatic piano which played perforated cardboard music. Although no instruments of this type are known to have survived, they may have been made at the time Limonaire was manufacturing show-organs using perforated cardboard music. The title of the sketch, reproduced here, "Schèma du Piano ou Orgue Limonaire à aspiration à roleaux" states plainly enough that the system could be used for either organs or pianos and one drawing shows a tracker bar for a keyless type of operation.

These three sheets of paper, measuring approximately 5ins by







The three pages from Pierre Limonaire's notebook showing a book-operated pneumatic system suitable for operating either an organ or a piano. The text, right, describes very accurately how the system was to operate. Top left shows a system using a tracker bar, i.e. keyless. Top right shows a keyed system.

8ins, also bear the impressed stamp of *A Muller, Villa Euterpe, 112 Boulevard d'Alsace, Pau.* Apparently this man was well acquainted with the Limonaire brothers but, according to Michael Limonaire, he is probably dead by now.

Michael Limonaire says that the Limonaire family started making pianos in Bayonne and their workshop was located on the rue Chegaray which is the present rue Victor Hugo. There would appear to be a confusion here between Bayonne and Biarritz. The members of that family settled in Pau where they set up making organs and, apparently, automata, although it was not possible to establish what sort of automata they produced. The two brothers were Eugene and Camille. Eugene Limonaire was the technician and Camille was entrusted with the accounts and the managerial side of the partnership. They married but had no sons, only daughters who married and took the names Flamand and Mustellier.

Madame Francoise Mustellier lives today at 104 Boulevard Arago, Paris 13e, and is probably able to fill in much missing data about her family.

Another lead is recalled by Michael Limonaire. There used to be a renowned organ-maker in Paris called Gonzalez whose business was making and repairing instruments at 30 rue Reveillon, 91800 Brunoy. Today he is succeeded by his son-in-law, a man called Danion. Michael Limonaire recalls how, when he was a child, Gonzalez was full of stories about the Limonaire brothers. Sadly, of course, the spoken word was not recorded, the stories are forgotten and Gonzalez is no more.

Perhaps understandably, the Limonaire family in Biarritz today is not over-occupied with the heroics of its predecessors and the great-uncles have been all but forgotten.

So, then, we have a Pierre Limonaire who was still alive at the time when book-playing instru-

ments were in their infancy—the late 1880s. We have two brothers Eugene and Camille. Were they sons of Pierre? And ultimately two daughters, now named Flamand and Mustellier. There is obviously a family tree to be compiled, many more questions to be asked, and a lot of time-consuming research to be done.

The story is incomplete. What I have done, though, is to provide the sum total of my findings to date in the fervent hope that someone else, preferably in France, will take on the task and tie-up the many loose ends. In conclusion, may I express sincere thanks to Mlle Etchevers who has worked closely with me on this project, and Mr Michael Limonaire for allowing the pages of Pierre Limonaire's invaluable notebook to be photographed.

TAILPIECE

Limonaire Freres continued making organs until the business closed in 1918. They were the last great show-organ builders to remain working in Paris and, when Gavioli went into liquidation in 1910, Limonaire took them over, making many "Limonaire-styled" Gaviolis—or "Gavioli-styled" Limonaires. The company always called their big organs *Orchestrophones* and their publicity said that the organs could be recommended as producing music as distinct from those which gained the attention of the public by their electrical effects and coloured lights.

First magazine of the AAIMM is published

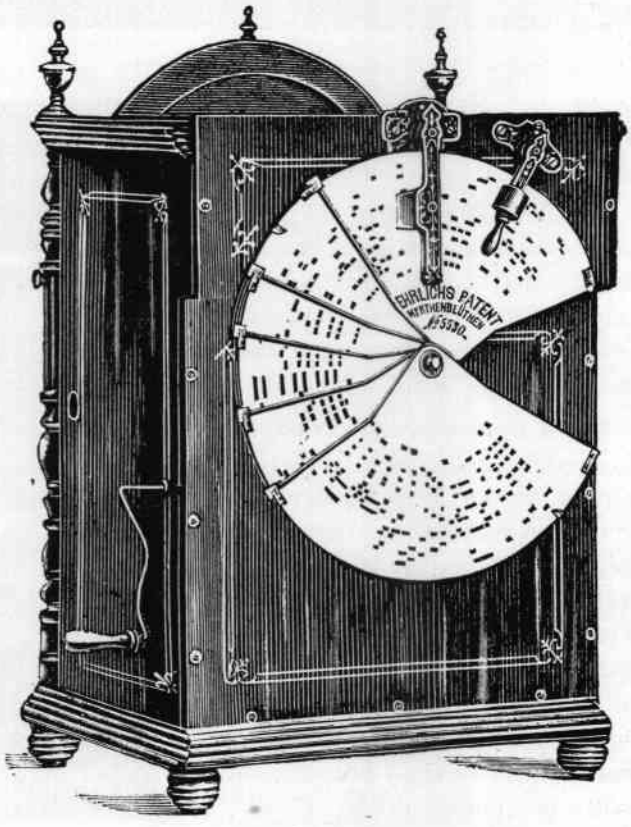
AFTER the news on page 196 concerning the formation of the Association des Amis des Instruments et de la Musique Mécanique is the welcome arrival of the first issue of the Bulletin of the association.

Capably edited by M Marcel Goujon, this 24-page publication comes in the same page size as *The Music Box* and is printed offset litho on coated (slick) paper.

Well-illustrated with large photographs, the Bulletin includes a report on the meeting which this French counterpart of our own society held at Lyon last October. There is also a quick-reference guide to the points which must be considered before buying a musical box (together with the advice that, faced with the offer of a disc box, you should hesitate as discs are very difficult to find), a fine description of an un-named free-standing dulcimer clock, a Bruder street organ, a shepherd clock by Pierre Jaquet-Droz, a survey of organs by Hooghuys, and a guide to classification of Swiss musical boxes. Particularly commendable is the fact that the unusual musical pieces described and illustrated are accompanied by the setting down of the scale played.

The large format of the magazine, which not only matches ours but also the new German society's publication, includes many fine and unusual illustrations and these include the accompanying two woodcuts showing in fine detail the mechanism of the Ariston Excelsior organette which plays a fan-disc. No examples of these have ever been seen but it is known that a table model, styled like the ordinary Ariston, was marketed to play these fan-discs.

For a first issue, the French society, under the jurisdiction of its President, our member Claude Marchal, is to be congratulated on producing so professional a publication. Membership of the society, which currently has 170 members, costs 15 francs per year. The Bulletin is, of course, entirely in French.



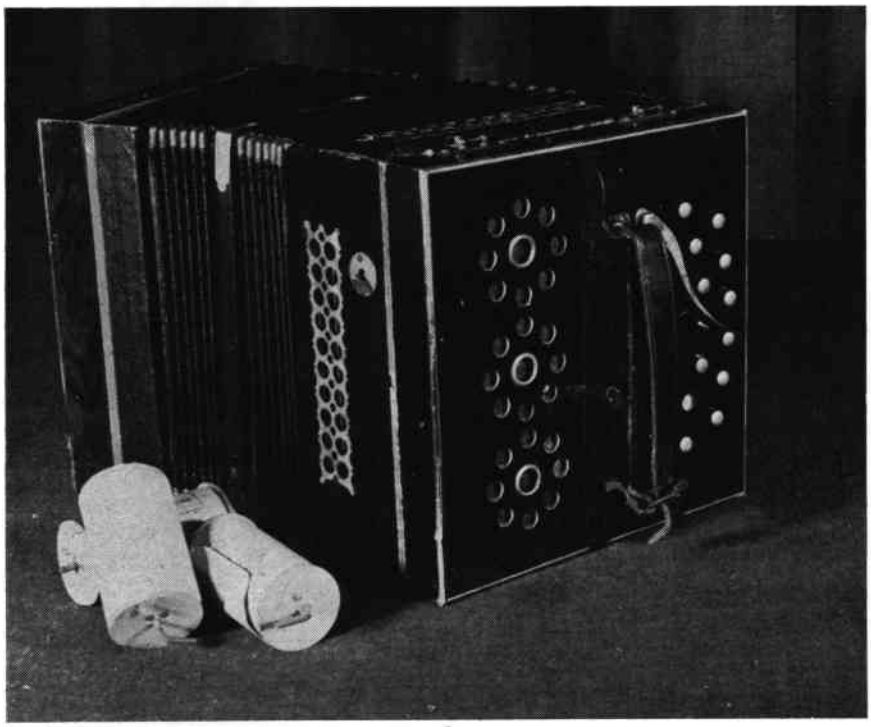
TANZBAR, THE AUTOMATIC CONCERTINA

THERE is hardly an instrument used in the production of music which has not at some time or another been converted, modified or otherwise adjusted so that it could be played automatically. Violin, flute, trumpet — all have their self-playing counterparts.

The accordion ended up as an overt centre attraction of the cafe organ, its automatic prowess heightened by its being " opened " and floodlit during the period when its reeds were being blown.

But at a much earlier period, the concertina and the rectangular variant known as the Bandoneon were constructed in self-playing format. The owner-operator was still called upon to work the thing, however, as rather like the ordinary pedal player piano, he was required to ensure both a supply of wind (by moving the concertina body in and out) and to apply power to the music programme drive.

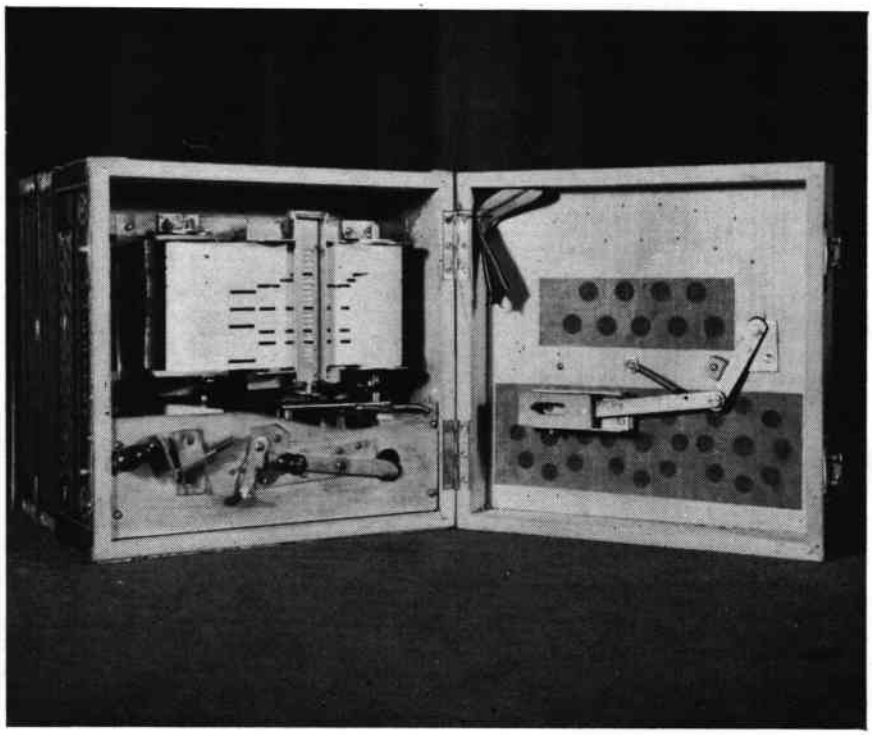
Whereas many inventors applied their creative powers to producing a self-playing system, only a very few examples were ever to see anything like volume production.



The first was the pinned wooden barrel patented in Leipzig by L A Klepzig in 1884. Examples are illustrated in Buchner (plate 63) and Weiss-Stauffacher (page 97).

But it was Alfred Zulegar of Konigsplatz 4, Leipzig, who devised a workable perforated paper system during the late 1890s. Using a roll of stiff paper, rather like Imhof's leaf-system, the instrument featured a keyframe and models were made which played 14 or 28 single notes, or 32 or 80 quadruple reeds. Called the *Tanzbar,* various styles were in production until the late 1930s. In use, the player has to keep flicking the trigger, visible in the first picture, to keep the music rolling.

This model comes from the collection of F A Welti of Bletchingley by courtesy of whom these pictures are reproduced. Right is the first of a four-page tune list, the highest roll number on which is 632, Bertram L'Estrange's *Red Wing* two-step.



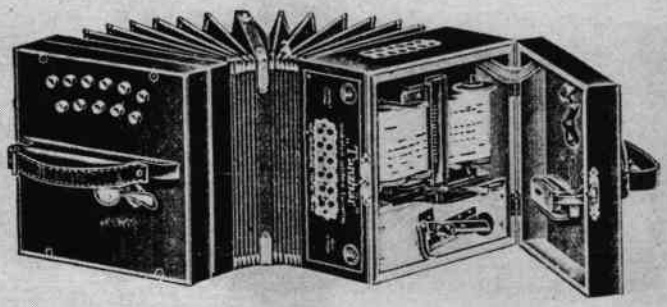
Notenverzeichnis

zur mechanisch spielbaren Concertina „Tanzbär" mit einlegbaren langen Noten.

List of rolls

for the mechanical playing concertina „Tanzbaer" with exchangeable long music rolls.

Für Größe Nr. 0, 1, 1a
mit 32 Tönen
und
Nr. 2 mit 80 Tönen.



For numbers No. 0, 1, 1a
with 32 reeds
and
No. 2 with 80 reeds.

Nr.	Titel	Title	Komponist
1	Über den Wellen, Walzer	Over the waves, waltz	J. Rosas.
2	Der lustige Ehemann, Rheinländer	The merry husband, Rhenish dance	Oscar Straus.
3	In lauschiger Nacht, Walzer	In peaceful night	Zielrer.
4	Unter dem Siegesbanner, Marsch	Under the banner of victory, march	F. von Blon.
5	Unsere Garde, Marsch	Our Guards, march	Förster.
6	Cake walk, „At a Georgia Campmeeting"	Cake walk, „At a Georgia Campmeeting"	Kerry Mills.
7	Pfeif-Polka aus der Operette: „Frühlingsluft"	Pipe Polka from the operette: „The spring air"	E. Reiterer.
8	Walzer aus der Operette: „Das süße Mädl"	Waltz from the operette: „The sweet girl"	R. Reinhardt.
9	Walzer aus der Operette: „Frau Luna"	Waltz from the operette: „Miss Luna"	P. Lincke.
10	107er Regiments-Marsch (Frohsinn-Marsch)	March of the regiment No. 107	Hauschild.
11	Grüße an die Heimat (Teure Heimat)	Home greetings	K. Kromer.
12	Torganer Marsch	March of Torgau	Friedrich II.
13	Zwei dunkle Augen, Walzer	Two dark eyes, waltz	C. Heins.
14	Donau-Walzer	At the blue Danube, waltz	Strauß.
15	Glühwürmchen-Idyll	Glow worms, Idyll	P. Lincke.
16	Cadetten-Marsch	March of volunteers	Sorgel.
17	Stille Nacht, heilige Nacht	Still night, holy night	
18	Hohenfriedberger Marsch	March of Hohenfriedberg	
19	Die süßen kleinen Mägdelein, Rheinländer	The sweet little girls, Rhenish dance	V. Holländer.
20	Meine einzige Liebe, Walzer aus der Operette: „Lysistrata"	My alone love, waltz from the operette: „Lysistrata"	Lincke.
21	Wiener Blut, Walzer	Vienna blood, waltz	Strauß.
22	Am Wörther See, Walzer	On the lake at Woerth, waltz	Koschat.
23	Donauwellen, Walzer	Danube waves, waltz	Ivanovici.
24	Honeymoon-Marsch	Honeymoon march	G. Rosey.
25	Polka aus der Operette: „Jadwiga"	Polka from the operette: „Jadwiga"	Dellinger.
26	Die schöne Polin, Mazurka aus der Operette: „Der Bettelstudent"	The fine Polish girl, mazurka from the operette: „The beggar student"	Millöcker.
27	Grüß Euch Gott, alle miteinander, Polka aus der Operette: „Der Vogelhändler"	Polka from the operette: „The birdseller"	Zeller.
28	O du fröhliche, Weihnachtslied	Christmas song	
29	Küssen ist keine Sünd, aus der Operette: „Bruder Straubinger"	To Kiss is no sin, from the operette: „Brother Straubinger"	Edm. Eysler.
30	Berliner Luft, Marsch	Berlin air, march	P. Lincke.
31	Ein kleines bißchen Liebe, Rheinländer aus der Operette: „Berliner Luft"	Only a little love, Rhenish dance from the operette „Berlin air"	P. Lincke.
32	Tief im Böhmerwald, Volkslied	Deep in the Bohemian wood, Song	H. Bieberl.
33	Wer Euch getraut, aus der Operette: „Der Zigeunerbaron"	Who has married you? from the operette: „The gipsy baron"	Joh. Strauß.
34	Es war einmal, aus der Operette: „Im Reiche des Indra"	Once it was, from the operette: „In the land of Indra"	
35	O du mein Pusselchen, Rheinländer	Rhenish dance	Holländer.
36	Leise, leise schleicht ein Schatten	Rendez vous, Gavotte	W. Aletter.
37	Heimat süße Heimat	Home sweet home	
38	Den König segne Gott	God save the king	
39	Rosen aus dem Süden, Walzer	Roses from the South, waltz	Strauß.
40	König Karl-Marsch	King Charles March	Unrath.
41	Schlittschuhläufer, Walzer	The skaters, waltz	Waldteufel.
42	La Czarine, Mazurka	The Czarine, mazurka	Ganne.

Society Archive

WITH the oppointment of Mr Keith Harding as Hon Archivist (see page 248), the Committee has sanctioned the initial expenditure of up to £200 of funds to obtain copies of books having a bearing on mechanical music and its instruments. This is to form a nucleus of a reference library which will be available to members for study purposes.

Members who would like to donate books, old catalogues or other printed material are invited to write first to Mr Harding so as to avoid unwitting duplication.

Details of donations and purchases will be published in due course.

Barnett Henry Abrahams tunesheet and trade-mark

ON PAGE 91 was illustrated and described the Imperial disc-playing musical box made by Barnett Henry Abrahams of St Croix. Besides making the Imperial and Britannia disc boxes, the BHA initials are closely associated with the manufacture of cylinder musical boxes, frequently those fitted with bells and manufactured around the closing years of the last century.

The number of names given to these late-period boxes by their makers was large and, so it seems, the later the box (and the greater the pressure on the market exerted by the disc machine), the more colourful both the names and the tune-sheets.

Seen here is a very fine example of one of these late-period tune-sheets. Richly coloured and printed lithographically, this is a microcosm of all the design gimmicks contrived to embellish the products of the period. Taking pride of place at the top of the card is the trade-mark, seen in greater detail below. This appears only on later boxes. The only indication of the maker's name is to be found at the bottom left-hand margin of the tune-sheet where the name "BHA Ste Croix, Switzerland" appears with the word "& London" in the facing corner.

Details of trademark.

BHA boxes are generally of good quality, loud in sound, pleasing in tone and coarse in comb. This one, however, was of somewhat better-than-average quality and was fitted with bells of above-average quality.

The factory of Barnett Henry Abrahams was situated in St Croix and was operating at some date before 1870. In 1886 it had an address in London at 128 Houndsditch, but later all the company's products were distributed through the Star Silver Depot. Many of its cheaper products were decorated with skilfully designed and printed transfers (decals) so that the case appeared to be finely veneered with marquetry designs: in truth they were of cheap softwood on which the design was laid.

The tune-sheet is reproduced here with grateful thanks to Christopher Proudfoot of Christies South Kensington, who included this box in a recent sale.

WHEN WARNIES WENT ON WHEELS

LAST year was a year of anniversaries in Holland. Amsterdam celebrated its 700th birthday, Leiden University was 400 years old as was the famed Bols distillery. But another anniversary almost went unnoticed in the clamouring. It was exactly one hundred years ago that the blind Leon Warnies decided he'd had enough of carrying his heavy " belly organ " around Holland, and put it on wheels. Thus came about the development which made the Dutch street organ unique. The mobile street organs are now renowned throughout Holland and in this article, reprinted from *Holland Herald*, the English-language magazine of the Netherlands, is related the story of how the film *Organs on Wheels* came to be made

HE WOULDN'T have known it at the time, but the fellow who invented the wheel was also responsible for saving the life of the street organ.

Those large, vividly painted and carved, jolly-sounding mechanical music boxes, which can suddenly appear around any corner in the Netherlands—and *only* in the Netherlands—have just celebrated their 100th anniversary.

It was in 1875 that Leon Warnies, who carried a " belly organ " around, decided to put the cumbersome instrument on a cart and rent them out. The cart meant that the " belly organ " man could wheel himself over more territory in a day. And the rental procedure ensured that the instrument would always be returned for repairs, cleaning and tuning, and even be exchanged for a more handsome model. Many fine street organs were saved from the scrap-heap this way. " Treat these street organs well ", said the blind Warnies, who was reputed to be a man of considerable means, " and you'll get a better one next time."

The earliest organs rented out by Warnies, a Belgian who had lived in Holland for several years, contained a cylinder or barrel with spiky protrusions which made the music. One barrel could contain only eight or ten different tunes, and was difficult to change. New ones were expensive, which meant that the organs had a limited repertoire.

But as Warnies was still mounting his barrel organs on carts, an Italian living in Paris, Anselmo Gavioli (whose family name is linked to some of the most beautiful instruments ever built) was busy inventing a book organ to replace the barrels. This was 1892.

The book, on heavy, folded cardboard, had holes punched in it which released keys to play the music. The books were easy to duplicate. A repertoire could now be expanded. And in no time every street organ could be fitted out with the hit tunes of the day. The popularity of the instrument was thus guaranteed.

These days, although there are still some barrel organs to be found, nearly all street organs are operated by the book system. Even these have disappeared from nearly every country in Europe except the Netherlands, and the reason is twofold:

First, a flat country such as Holland is practical for a bulky instrument like the street organ (imagine pushing one through a Swiss village).

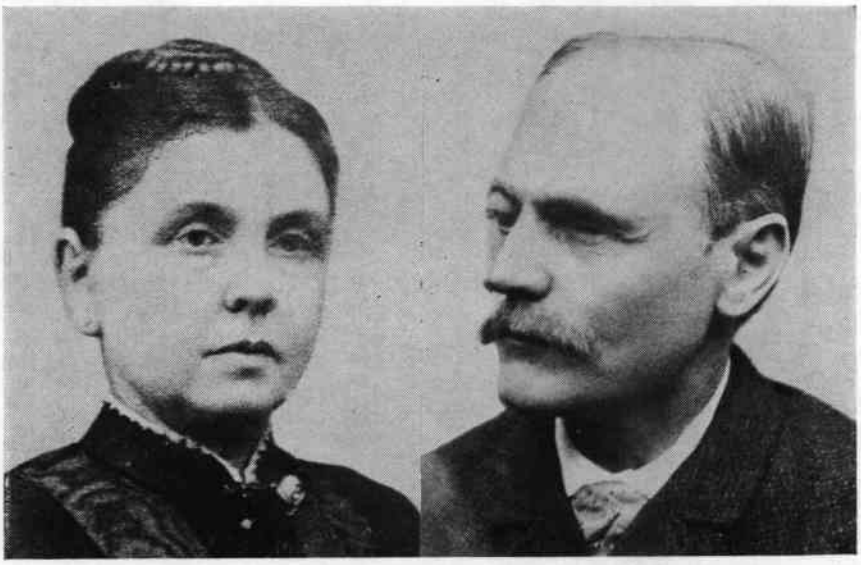
Second, the Dutch street organ culture is kept alive by the enthusiasm of a few hundred people who belong to a club called the Kunkel's Foundation, named after a man who donated his street organ to the club's efforts. They are hobbyists, organ builders, organ renters, music lovers, and all of them admitted fanatics. Their main aim is to keep Holland's loveliest street organs from being sold abroad, and at the moment they are jealously guarding about 150 instruments.

Reinier Meijer and his wife, Ellen, film-makers from The Hague, are both street organ enthusiasts and members of this " fanatics " club.

Government aid

Having made feature films and many travel films such as " Surprising Amsterdam ", they had tried for years to get a government subsidy for a film on the street organ. " I knocked on more doors at the Ministry of Culture than I'd care to count ", he says. " Finally they gave me the subsidy, if for no other reason than to get rid of me."

Meijer's film is called " Organs on Wheels " and runs for 20 minutes. It is currently circulat-



Leon Warnies, born St Niklaas, Belgium, February 1838, died December 1903, was first to put book organs on the streets — he bought a fleet of Gasparinis. Maria van Hinste, Louis Holvoet's widow, became his wife and continued the business until her death in 1910. Two of her sons had already taken over in 1905. These portraits of Leon I and Maria hang in the museum in Utrecht.

ing various film festivals and is available to interested groups who apply either to the Netherlands Government Information Service (RVD) or their local Dutch embassy or consulate.

"This is a musical country", he says. "We have carillons, street organs and even street musicians, although they are vanishing rapidly. My film has no narrative, just the music of the street organ in picture."

"Drunk, crazy grinders . . ."

According to Ellen: "Many of the Dutch have a completely wrong picture of the street organ man. They will knowingly tell you he's either drunk or retarded, crazy or uneducated. Nothing could be further from the truth. The man with the street organ may even be quite wealthy and at the least he earns a very good living. In general, they are very nice people."

Who are these "nice people" who devote the lion's share of their time to the street organ? The people responsible for keeping these mechanical, musical giants alive? The people Meijer found worthy of being noted on film for posterity?

Gijs Perlée, from Amsterdam, certainly has the most street organs. Meijer says he must have between 60 and 70 instruments and reports a warehouse full of street organ parts just waiting for fitting together and restoration. Perlée's family have been in the business for generations (a Perlée son married Leon Warnies' daughter). And they own what some people feel is Holland's most beautiful street organ, although it reportedly does not have the best sound.

This organ, called the *Drie Pruiken* (Three Wigs) is decorated with Gavioli puppets and the owner brings it out himself on special occasions only. The others in Perlée's collection are either rented out or sold.

Never heard of again

Around 25 years ago a street organ, together with about 30 books, would fetch about $2,800. But today, an organ which takes from 12 to 24 months to build or restore, can cost anything from $40,000.

Several wealthy collectors in England send for Perlée or ship their street organs back to Holland when repairs are needed. But some lovely instruments sold to the US have never been heard of again.

Another Perlée speciality is the

Two of Leon Warnies' original "belly organs". Both date from the 1870's, that on the left being a Meloton reed barrel organ and that on the right a Harmonipan flute and piccolo barrel organ. Both were made by Cocchi, Bacigolupo and Graffigna in Berlin (see the picture on page 239). Both organs are preserved in the Nationaal Museum van Speeldoos tot Pierement, Utrecht, by whose permission this picture was specially taken.

miniature street organ. One of these instruments was presented to Queen Elizabeth and Prince Philip when they paid an official visit to Holland several years ago. It was to be a gift for Prince Charles and every year Perlée sends the Prince new books of the latest hit tunes, to keep him in touch.

Anton Pluer, from Bussum, is an organ builder, and while his name may not have achieved the international fame of a Gavioli, Carl Frei and even Perlée, two of his "children", the *Harmonica* and the *Rosita,* have won many national street organ contests. Many Dutch enthusiasts feel that the *Harmonica* has the best sound of any street organ in existence.

During the week Pluer can be found working in a Hilversum carpet factory. But his free time is spent in his backyard shed where, with one helper only, he turns out complete street organs and even carves the pipes himself. Pluer's son walks with the *Harmonica* through the streets of Amersfoort, which helps to disprove the popular misconception that Amsterdam has the best (and only) street organs.

Henk Veeningen, from Balkbrug near Zwolle, is a farmer. He has two barns. One filled with cows, the other with street organs. He builds and restores the street organs, tunes and cleans them, repairs the pipes, and then rents them out in much the same way Warnies did, and Perlée does now.

Most organs today have, through the years, been repainted, had bits added or taken off, and have even had a change of name. But Veeningen owns perhaps the oldest street organ still in use and in its original state.

Organ lovers generally believed that a fine instrument, called the *Engelenkast* (Angel's Cabinet) had disappeared some 30 years ago. Veeningen, hearing that the widow of a carnival worker had a street organ to sell which was in a bad state of repair, rushed over to have a look. He paid about $400 for it and took it home. Only when Veeningen began to clean the organ did he realise what a treasure he'd found. It was the old *Engelenkast.*

Feite Posthumus, a civil engineer for the government in The Hague, whose day-to-day task includes the building of bridges and roads, is one of the foremost historians on the subject of street organs. On the board of directors of the *National Museum from Music Box to Barrel Organ* in Utrecht, he spends his free time painting the large, garishly beautiful fronts of street organs, and has done restoration work for the museum. Posthumus works mostly in the attic of his home, where the organ fronts are carried up in small sections.

Risqué art

For inspiration he often uses old books which were considered risqué at the turn of the century; books showing buxom women in low decolleté. For in the early 1900s the paintings and puppets on the newly-popular street organs

could possibly be compared to the sex shops of today.

When two figures were depicted dancing one was always in female dress and the other male. But it wasn't hard to see that they were actually both females with one figure a transvestite.

Fred Lindstee, a factory worker in Gorinchem, has mastered the art of carving organ fronts, and carving and painting the puppets in the style of the master Gavioli. And it is fortunate there is still a craftsman in Holland who can do this for, during the last war, when the street organ man found it difficult to earn a living, many fine puppets were burned for fuel.

Adrie Vergeer, from Gouda, was 16 when he went to work as a house painter. It was not to be his career for long. Adrie worked with a beat band in his spare time, but his passion was the street organ and eventually he began making organ books, doing his own composing and arranging. Now it's practically a full-time job.

Making books for organs is difficult, as they all operate on different systems. Some have piccolos, drums and clarinets, others cymbals and trumpets. Some have 50, 65 or 90 keys, the biggest being the most popular type. And the book producer must be thoroughly familiar with the street organ he's writing for.

Coen Alta owns a record shop and teaches folk music at a school in Haarlem. But his hobby is a street organ which he pushes through the town on Saturday afternoons. His helpers are students who do the job for a packet of cigarettes or a beer.

The mansebak

In most cases it's the owner or lessee of the organ who carries the *mansebak*, an oval, flat copper cup. Being a *manser* requires some skill. Shaking the cup in time to the music, his job is gently to coax coins from passers-by, being persuasive but not persistent.

These days, to the horror of the members of the Kunkel's Club, however, many street organs are no longer turned by hand but by a motor. This means that the owner has his hands free for the *mansebak* and needs no helpers. Even helpers earning the minimum wage are expensive, and only street organ men on a profitable beat like the Dam Square in Amsterdam can afford to hire help.

Alta, whose students walk with him just for fun, is an exception. Additionally, the Haarlem enthusiast has one of the few street organs left which is mounted on a cart with wooden wheels. The others are nearly all on rubber wheels for easier transport, particularly when they must travel the country, even to foreign countries, for street organ demonstrations and competitions. The carts are then simply hooked up to the back of a car.

Romke de Waard, president of the Amsterdam Court of Justice, is probably the country's foremost authority on street organs and it is to him that Meijer's film has been dedicated. Not only has de Waard, as an historian, written several books on the subject, he is an ex-president and board member of the Utrecht Museum, an arranger and composer of music for street organs and organiser of meetings, lectures and competitions.

All street organ lovers have close ties with the Kunkel's club, which regularly holds meetings and dances—to the tunes of street organ music, of course. They meet in a large hall in Haarlem which once served for building ships' hulls.

All the profit made by the club, from selling raffle tickets, coffee and beer, go into a fund which is used to buy instruments that might otherwise be sold outside the Netherlands.

Street organs are not only beautiful to look at and delightful to listen to. Their names alone often raise a smile—names which have sometimes changed through the years as an organ was rebuilt and repainted.

For example, there's the *Cement Molen* (Cement Mixer) in Rotterdam, so named because the turner looks as if he's churning cement.

After a repaint job the *Chocolade Kast* (Chocolate Cabinet) was rebaptised *Flower Girls*. And when the *Baker's Child* became the first street organ with paintings of nude females, it was renamed *The Tit*.

Street organ music is best heard in its natural environment. But lovers of all sorts of mechanical music, from its earliest beginnings to the present day, can best head for the *National Museum from Music Box to Barrel Organ* at Achter den Dom 12, Utrecht.

The museum is open from Tuesday to Sunday from 2 to 5 p.m. And there are concerts every Thursday evening from 8 to 9.30 p.m.

THE ORGAN-BUILDER'S SON WHO PREFERRED BUILDING CARS...

THE earliest barrel organs—worked into clocks, intricate manicure boxes, dolls and liqueur sets—became popular during the Renaissance, when they served as curios and playthings given from one royal family to another.

Next in line were the aristocracy who considered their barrel organs to be special treasures. The barrel organ system, however, most likely dates from medieval times.

In the early 19th century, particularly in England, barrel organs which played psalms and hymns were often preferred to a church organist. In comparison, the organist had only 10 fingers and was far more limited than the limitless possibilities of the barrel organ.

But by 1870 the barrel organ reached the public in the form of street organs as well as dance-hall and merry-go-round organs. Folk from Austria to France and Belgium danced to the lively music of the organ man, regardless of whether the dance floor was a street or hall.

The men who built the organs were precision mechanics and expert cabinet makers. Their skills were usually handed down from one generation to the next.

But occasionally a son of an organ man, perhaps because he had no ear for music, would seek work in another field. Like Hollreth, for example, who used the book system of playing mechanical organs and applied it to a new field. He invented the punch-card system which today forms the backbone of the computer industry.

And the boy who preferred tinkering with machines and automobiles to building organs like his father. His name was Maserati.

SUBTERRANEAN AUTOMATOPHONY

LAST summer, Ruth and David Newland visited the Luray Caverns in Virginia and found a most unusual mechanical musical instrument. Fondly, if imprecisely termed The Great Stalacpipe Organ, this is an electro-magnetically-operated percussion instrument sounding a scale of musical intervals on stalactites. It can be played by hand or from an automatic player mechanism

LYING between the Shenandoah River and the Blue Ridge Mountains, a mere 70 miles as the crow flies from Washington, is the town of Luray in Virginia. Close by is one of the most breathtaking examples of Nature's beauty, the Luray Caverns. Over 64 acres of subterranean wonderland greet the visitor to this natural wonder. The extraordinary profusion of stalactites, which are a prime feature of these famous limestone caves, creates a most beautiful effect.

Naturally with such a feature on hand it has been commercialised and it has become a leading tourist attraction as, with comfortable, constant temperature and now a smooth floor underfoot, there is now a charge for what Nature made for free.

Owing to the perfectly regular, close-knit structure of a stalactite aided by the fact that it develops in the same way as a tree around an extending core, the carbonate of lime which forms them is capable of producing a sonorous sound when struck.

An electronics engineer named Leland W Sprinkle visited the caverns in 1954 and was inspired to suggest that, with such a wide variety of stalactites to hand, it should be possible to create a mechanism for playing music on the stalactites.

During the following year Sprinkle developed an instrument which carries the title of *Great Stalacpipe Organ* which, although it has neither pipe nor organ, justly lives up to its claim as being the largest musical instrument in the world—it covers many of the 64 acres of caves—and it is still being added to.

The spectacular situation of what may rightly be claimed as the world's biggest mechanical musical instrument — certainly as far as acreage is concerned. The smooth floor provides a contrast to the rugged surroundings for people who stand to listen and be charmed by the most unusual instrument in the world.

Rock music

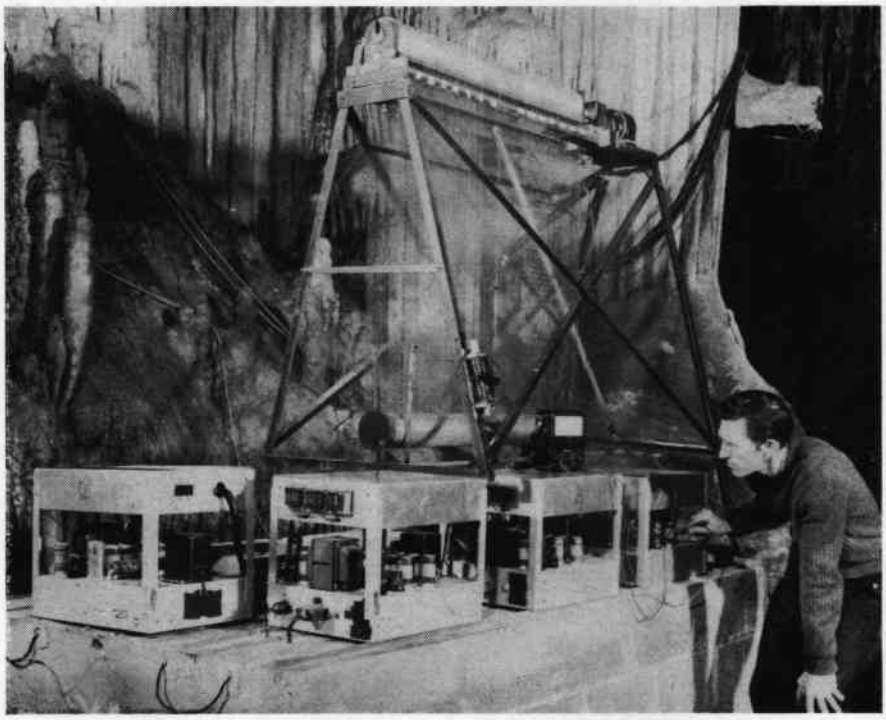
The difficulties in making the instrument were, as might be expected, formidable. Not surprisingly, Sprinkle found that only two of the rock formations were naturally able to conform to the divisions of the musical scale and so the first hurdle to be overcome was to discover a way of tuning a stalactite. The outcome was a process of grinding using aluminum-oxide sanding discs, a task made that much more difficult by the extreme hardness of the rock which rapidly wore the discs away.

Using tuning forks in conjunction with precision oscillators suitably amplified so that they could be detected above the grinding, each stalactite was brought up to the required pitch. Once tuned the rock stays perfectly in tune in its naturally air-conditioned environment with a constant temperature of 54 deg F. Sprinkle has commented that tuning might prove necessary every thousand years or so. . . . Another advantage of careful grinding is that unwanted harmonics can be removed in the same manner as the tuner of a church bell can control frequencies.

Three years of research, design and experiment were needed to develop the so-called octave chassis for the instrument. A system of modular design was adopted so that the driving

chassis for each octave is a complete and separate unit with power supply, electron tubes (valves) and firing apparatus. All units are interchangeable and spares are maintained for immediate replacement. A unit operating the bass can be interchanged with either of the units operating the treble without affecting the operational sequence of the instrument.

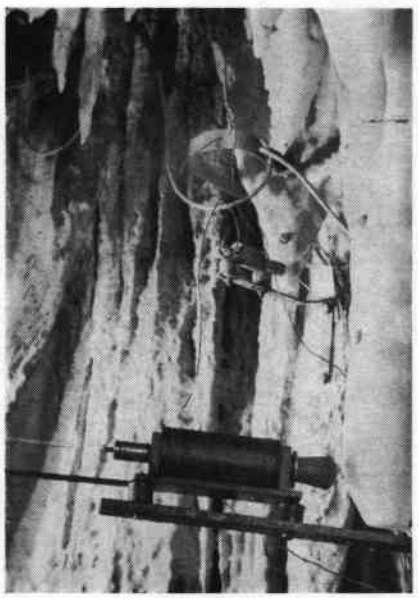
The octave units are controlled by metal wire brushes similar to the Mills Violano system. The music sheet is a Mylar plastic belt ·003 inches thick and 40 inches wide. The perforations for mechanical playing are burned through this using a soldering iron. This somewhat cumbersome and Heath Robinson-like system seems not to have benefited from the numerous patents taken out by Sandell for the Mills Company which covered just this type of system, but considerably more refined in execution. The player system, first used on July 29th, 1956, to play *A Mighty Fortress in Our God*, must certainly rank as a hark back to a long-past level of technology.



Inventor Leland W Sprinkle, electronics engineer, who visited the Luray Coverns in 1954, seen here with the mechanical player portion of his instrument. An amateur organist, Sprinkle sought to apply organ technology to his percussion mechanism.

Adjustable volume

Nevertheless, the system of actually sounding the stalactite is both ingenious and well-founded. There are eight degrees of volume capable and this is selected from extra information perforations in the music-belt. To sound a note, contact is made through the belt by the metal brush. This initiates a current to be discharged through a relay which, in turn, discharges a storage condenser through a long electric cable to the required stalactite where a striker unit is excited, its piston hitting the rock at the pre-signalled intensity.



The attachment of one of the electro-magnetic hammers which are used to strike the tuned stalactites. Different degrees of striking power can be selected to vary the volume of music.

The striker unit contains a central piston and is, in effect, a scaled-up solenoid with the usual magnetic moving core. The large ones have pistons of soft iron with a brass tip sheathed in rubber. Smaller ones have rubber-tipped ferrous pistons and are mounted on Monel metal brackets.

Early on it was determined that the relationship between piston weight and stalactite size was crucial to intonation. A large, resonant rock would not respond properly to the impact of a small piston: a heavy one must be used to impart the proper vibratory motion to the stalactite. To mount such necessarily large striker units, large, heavily-founded and electrically-welded brackets were needed, each individually made to suit the surrounding rock. Rubber cushioning was used to eliminate the transfer of mechanical sound from piston to mounting bracket.

Fixing the brackets presented its own problems: in some cases the brackets encircled the rock but more often were attached rigidly to the rock by lag screws. Resonant rock formations had to be avoided since they produced unwanted tones of their own—usually in the form of an undesirable thump as the piston sprang back into position after impact.

The instrument comprises four distinct component categories — the octave chassis, the automatic player, the four manual-and-pedal console, and the tone-producing rock formations. Unification for the components comes at a terminal board and control panel. Any stalactite can be sounded automatically and at a predetermined intensity for testing. The console carries a "remember" and a "forget" switch by means of which a combination of the three volume switches may be recalled through a built-in memory bank. The "forget" position is simply a cancel setting.

One "rank"

So far only one rank of 37 stalactites has been tuned and wired-up to the console — more than five miles of wire have been used for this alone—but plans include the conversion and use of every stalactite in the caverns which is capable of being tuned. Each manual encompasses five octaves.

Power to actuate the sounding pistons comes via continuously charging condensers and the sequence of sounding breaks the circuit to discharge the unit.

The area where the instrument is situated is called the Ball Room

and the echo effect is claimed to be outstanding. Experiments to create a celeste stop using two stalactites sounded together with a discernible beat are being exploited although its effect in a situation with a natural reverberation period of two seconds remains to be seen.

The playing console for the instrument was built by the Klann Organ Supply Company of Waynesboro', Virginia, and features volume control switching pistons operated by expression pedals, and the stop draw-knobs are numbered to designate the ranks of stalactites and numerous couplers. The four manuals are called Harmonic (the equivalent of the Great), Cathedral, Solo and Echo, while the pedal department complements the Cathedral.

Noting the music

Arranging music for mechanical performance has unsuspected complications due to the random spacing and siting of the individual sound sources. Preparing to note the plastic belt calls for one operator in the stalactite area linked to the second operator at the control board by telephone. A passage of music is repeated over and over again while instructions concerning volume level are telephoned back. After the establishment of a satisfactory setting, the positions are used as a visible reference to aid in the melting of corresponding volume perforations in the plastic belt rather in the same way that expression holes are added to a music roll for a reproducing piano.

On replay the automatic memory reads and retains the information and from then on playback is completely automatic. A selector cuts out the automatic player when the manual console is used.

Designer Leland Sprinkler has contrived his unique instrument to have a long and trouble-free service life and certainly the environment presents a rare opportunity to approximate ideal conditions for longevity.

There are four tunes so far recorded. Besides the first hymn, *A Mighty Fortress in Our God,* there is the 18th century Dutch *Hymn of Thanksgiving, Christ the Lord is Risen Today* (which is played at Easter) and a rendition of *Silent Night* with special stalactite chime effect.

Although the world's largest organ remains as the Atlantic City, New Jersey, Auditorium Organ, and the largest player organ in the world (with player console as well as six manuals) is still the organ now in Wanamaker's Store, Philadelphia, the Luray instrument must claim the title for the *widest-spread* organ in the world!

The designer of the Great Stalacpipe Organ, Leland W Sprinkle, writes from Springfield, Virginia, with the following technical description :

THE stalactite organ is built around one set of 37 stalactites (no stalagmites are used) ranging from C one octave below middle C, to C two octaves plus one tone above middle C. All rocks are tuned to concert pitch with the A above middle C tuned to 440 cycles per second. A set of standard pitches, one for each tone, is used during the grinding process and when beats are eliminated the rocks are so accurate that they can be used for a reference to tune a pipe organ. In fact, since a stalactite, once struck, produces a tone which dies out in a finite time while the reference tone (the tuning tone) continues, I have had to figure out how to recognise and eliminate a section of a beat that would extend longer than the tone of the stalactite.

The tuning process has turned out to be incredibly successful, especially with a constant 54degF temperature and slow build-up of calcium.

Couplers

The lowest manual—Harmonic —is directly connected to the solid-state controls which eventually regulate the timing of the hammer blows on the rocks: 37 keys to 37 rocks. The last octave above in the treble is connected in parallel to the last directly-connected octave so that the next to the last octave is repeated. In going up the scale, the second octave above middle C is repeated as the fingers mechanically progress up to the end of the manual (keyboard). The same is true of the bass.

The next keyboard up — the Cathedral manual—can be coupled one-to-one to the keyboard just discussed, the Harmonic. Furthermore, the Harmonic can be super-coupled to the Cathedral simultaneously for a brilliant effect.

The next higher manual — the Solo — and the top manual — the Echo—have been left for future expansion which can extend to the full 64 acres of caverns. The pedals are connected by couplers in unison and by super-coupler to the Harmonic.

Pure sine waves

The original idea was to have sets of rocks (ranks), but since the tones are all pure sine waves, it seemed unnecessary especially in the light of amplification by use of magnetic pick-ups activated by half-iron and half-nickel bolts embedded in the stalactites but not touching the magnets themselves. However, this is another story on which I lecture occasionally.

There are no "mixture" stops. Unlike a pipe organ in which pipes can be ordered from the factory, we must deal with tone sources where Mother Nature placed them, and the activation of even the one set of rocks required a stupendous expenditure of care and energy. To obtain three ranks, for instance, would require three more sets of rocks, brackets, wiring, miles of wire, special tuning, etc. I should, however, locate a half dozen more rocks above the present key of C for more range and added brilliance.

Therapeutic effect

It may be of interest to know that both the John Hopkins Hospital in Baltimore and the United States Health Education and Welfare Department have had representatives observing public reaction to the pure tones with a view to the therapeutic effects. The instrument through the years has demonstrated an uncanny ability to rivet attention and hold audiences spellbound with its majestic effects.

Under the auspices of the United States Information Agency *Vision* series, issue number 40, there is available a motion picture of the Luray instrument.

DUTCH ORGAN WRITER DIES

THE author of *Glorieuze Orgeldagen,* Frans Wieffering, died in February, 1976, at the age of 69. He had been suffering from cancer. A well-known organ enthusiast, his book was published in 1965 and comprised the histories of 100 organs illustrated with a rare assortment of photographs, some of great age. Instruments long since lost, and case-styles subsequently rebuilt, were carefully documented by Wieffering. He was a member of the Kring van Draaiorgelvrienden.

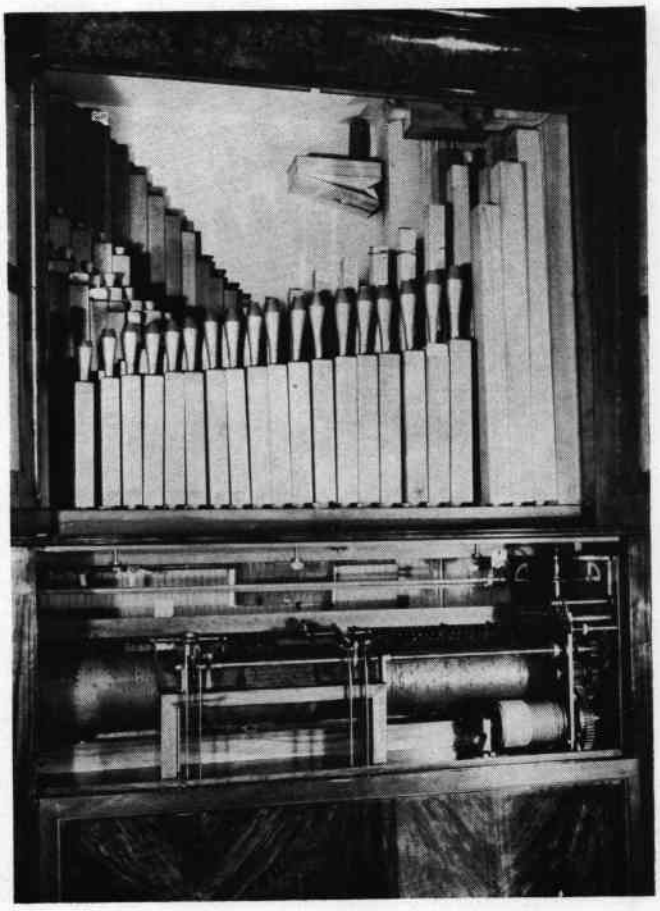
RESIDENCE BARREL ORGAN

ON PAGE 111 is shown the Imhof & Mukle two-stop residence barrel organ in the collection of Bruce Angrave. Here is another example of this type of instrument, also made by the Black Forest makers Imhof & Mukle which contrasts sharply with the other one and illustrates the diversity in styles and construction.

Recently restored by the Editor and the property of Mr Tom Greeves, is has 72 keys of which four pairs are used for register changing. The organ features stopped Vienna flutes, shaded flutes and a fine rank of softly-voiced, low pressure reeds along the front.

Weight driven, the clockwork drives four feeders, the lifting rods for which can be seen centrally in front of the barrel.

The remarkably handsome case is " secret-jointed " and a previous restorer had tried to prise the back off the case to withdraw the organ. Fortunately he had abandoned this before too much damage was done. The front of the organ features a glazed door, seen closed in the upper picture, open in the other. To dismantle the instrument, the top of the case together with front and side doors, can be lifted straight off as a unit. The narrow strip of veneered wood forming the front edge against which the glazed door closes is then lifted upwards, so freeing blind tenons to the case sides and the front. The front panel, comprising glazed door down to the next row of cross-banding below it, can then be pulled straight out, revealing the two large screws securing the organ body and bellows to the inside of the case.



The original gut line broke some years ago, allowing the heavy cast iron drive weight to plunge down its wooden gulley at the back of the case and shatter the bottom frame of the organ. The line is now made of terylene (synthetic fibre) rope. The small bellows visible near the top of the organ inside the case is a tell-tale for indicating when the organ is fully wound. A projection on the bottom board of these bellows protrudes into the narrow vertical weight chamber. When the weight rise up against it, the bellows is collapsed so forcing air through a small whistle.

LATE PERIOD MERMOD

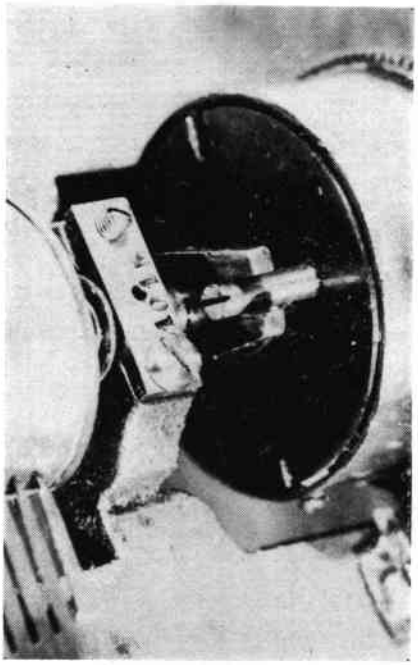
An example of mass-production ingenuity

AS PART of the policy of *The Music Box* whereby we take a look at all types of musical box, whether early rarities or much later products, we present here a close look at a musical box in the collection of Colin Thorpe of Chiswick.

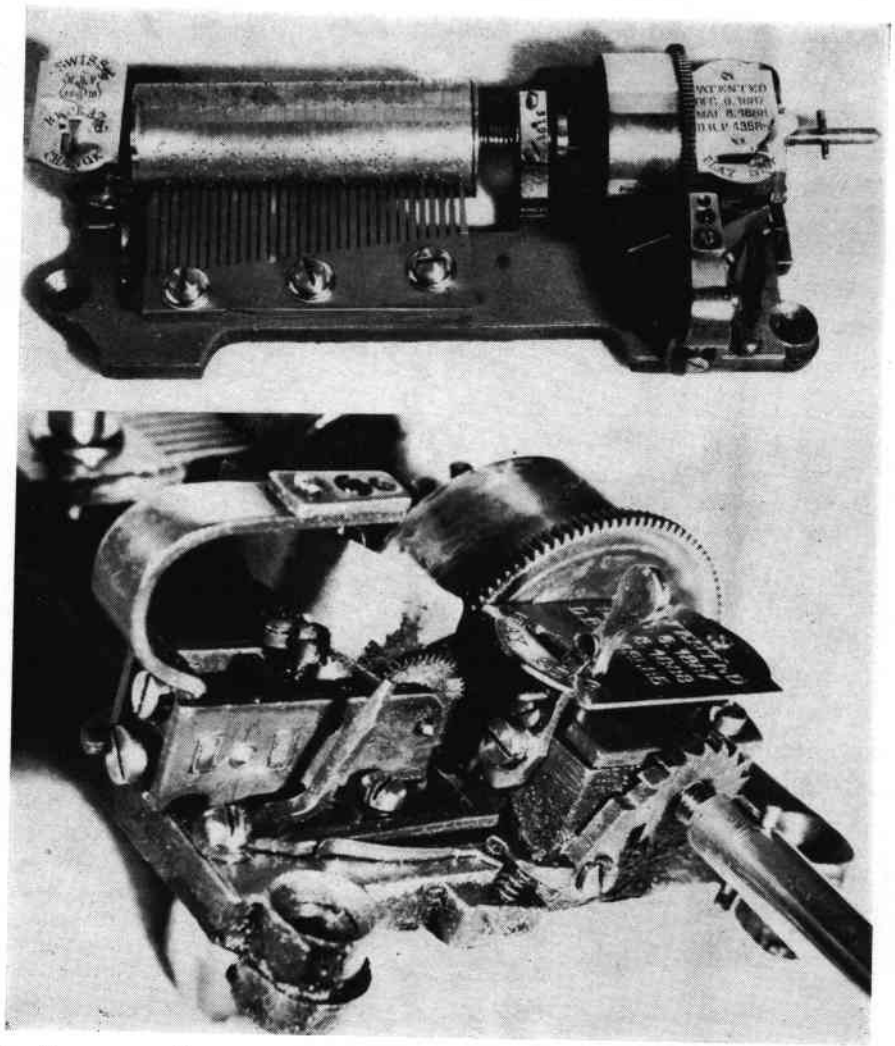
Basically, this is a late-period, mass-production item from the factory of Mermod Freres in St Croix, Switzerland. It dates from around 1890 and is an excellent example of the developing technology which began to affect the whole of the musical box industry during the period when competition from first the disc musical box and then the gramophone was taking away a formerly profitable market.

Mass-production

Manufacturers such as Paillard and Mermod spearheaded a design campaign to eliminate many of the costly and lengthy processes in production and the first major step came in the early 1880s with the perfection of cylinder reproduction for the cheaper boxes, this dispensing with the lengthy process of pricking each cylinder individually.



The system of driving the cylinder. A peg protruding from the face of the motor barrel engages with a fork attached to the cylinder arbor. The cylinder is retained in cast tunnions by a screwed cap-plate.



In the upper picture can be seen the layout of the complete movement with the large change/repeat escutcheon on the left end, and the stop/start escutcheon with the patent numbers on the right. Immediately above is a detail view showing the direct drive from motor to endless and the stop/start system as well as the coil-sprung winding ratchet pawl.

Next came the integral casting of cylinder arbor supports as part of the bedplate. This one move not only saved the casting and finishing of the two brass trunnions, but eliminated the time-consuming alignment during fitting to the bedplate.

Simplified motor

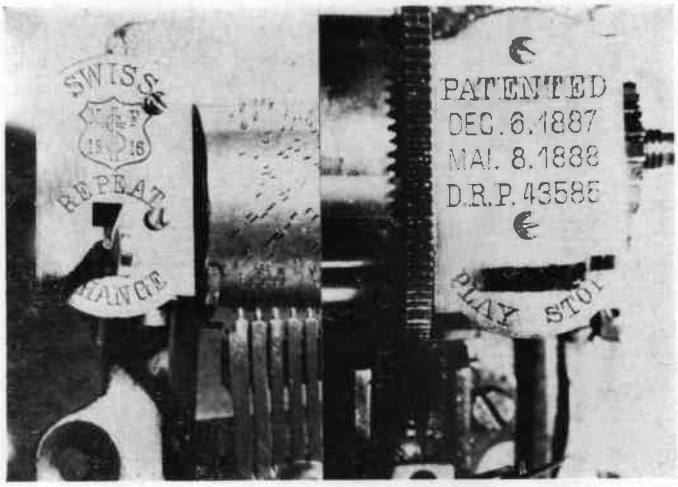
It was only a matter of time before a similar process was applied to the attachment of the motor and here Mermod was the first to adopt the system whereby the bearing for the spring barrel arbor was only supported on one side by a long bearing. By positioning the escapement so that it was actually driven by the spring barrel great wheel, and by placing that great wheel close to the arbor bearing face, not only were parts and their fitting saved, but also the former close tolerances ceased to be needed. In fact, working tolerances of hitherto unheard of latitude were now admissible. The cylinder needed no rigid or precise relationship to the driving motor and the spring barrel rotated it by means of an offset driving peg which engaged in a fork or yoke projecting radially from an extension to the cylinder arbor.

A simplified escapement or train was devised, largely comprising pressed-out or sheared components. The stop-start control also became a simple, pressed-out low-tolerance part.

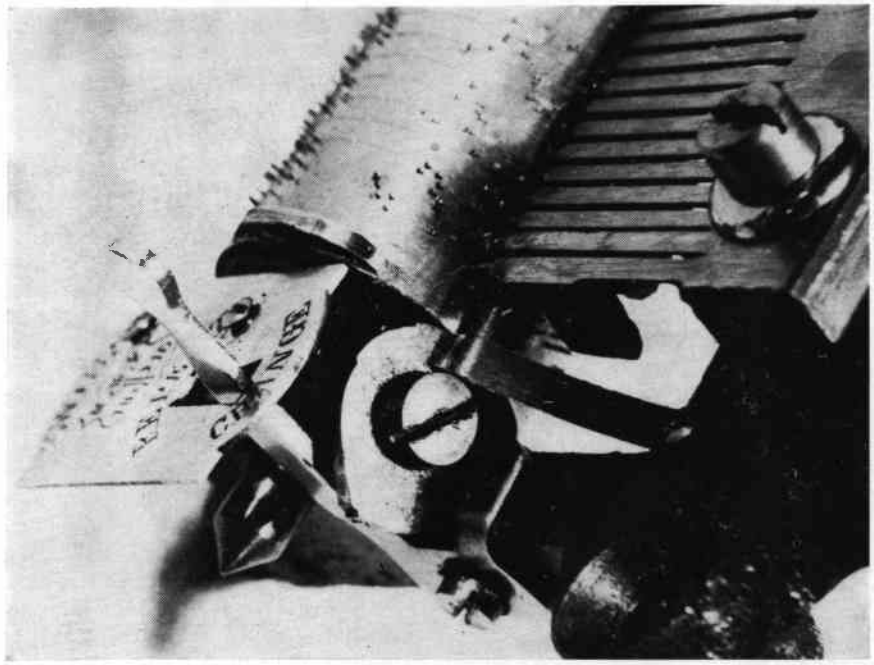
One extremely interesting departure was the abandonment of the form of star-wheel and face-cam tune-changing mechanism. The production of this one part was among the most complex of the entire musical box and its setting-up called for fitting skills of a high order to ensure that star-point and face-cam combined in the proper position with the height and penetration of the change finger.

Mermod's system dispensed with all this and replaced it with a vastly-simplified yet extremely effective system, the key feature of which was a stamped-out steel cam mounted at right-angles to the cylinder arbor in such a way that the edge of the cam rested on the edge of the end of the cylinder. The cam was prevented from unwanted rotation by physical contact with a simple change/repeat lever, and by a strip-steel spring which pressed against its face. This strip-steel spring also had at its end a projecting arm which could ride just clear of the end of the cylinder surface, held in that position by the in-and-out positioning of the tune-change cam. However, around part of the circumference of the cylinder was situated a raised portion of sufficient size that as the cylinder rotated it could lift the spring clear of the change-cam by means of the projecting arm on the spring.

If the change/repeat lever was now set to "change", this cam would be free to rotate and, as a small radial gulley in the cylinder end contacted the cam, it would now turn, so impelling the cylinder laterally just sufficient for another tune's pins to align with the comb tooth tips. Once again, manufacturing tolerances on this part were much more than on the conventional snail and face-cam.



Composite illustration showing details of both ends of the cylinder. The Mermod trademark is clearly visible on the left escutcheon. This is invariably repeated on the tunesheet.



The unusual change/repeat mechanism can be seen clearly in the illustration above. The face cam, centre, is normally prevented from rotating by the pressure exerted by the strip spring and by contact with the control lever. When the lever is set to "change", and when the spring is lifted clear by the cam on the cylinder itself, seen uppermost on the end of the barrl, the cam can turn and so move the cylinder to a new tune position.

Other modifications

Many other small modifications were embodied to reduce costs. The ratchet pawl for the handle-wound spring motor, for instance, carries a tail against which a small coil spring presses, so dispensing with the usual form of spring.

The patents listed on the stop/start escutcheon comprise two American and one Swiss. That of December 6th, 1887, is US patent 374,410 in the name of Charles H Jacot, Mermod's US agent. The second patent is number 382,292 of May 8th, 1888, and this is in the name of Louis Campiche of St Croix. Campiche worked for Mermod and all his patents are assigned to that company. The existence of American patents but not British ones is explained by the fact that Mermod Freres had a strong link with the United States through Jacot and Emile Cuendet, both from St Croix and who together went to America to set up the Mermod agency there.

Our thanks go to Colin Thorpe for allowing *The Music Box* to dismantle and photograph this interesting specimen.

Mermod Freres was established in the year 1816 at St Croix and were described in the catalogue of the Great Exhibition, held in London in 1851, as high-class watchmakers. The name soon became associated with complex and ingeniously constructed musical boxes and the music on their cylinders was almost always brilliantly set up. The only exception to this was with some of the disc boxes they produced where the melody was somewhat thinly presented.

By 1902 the business was operated by the brothers Louis Philippe, Gustave and Leon Mermod at Avenue des Alpes in St Croix. According to James Hirsch (*vide* MBSI Bulletin), in 1911 Marc K Mermod was the New York agent for the company which was still flourishing at that time.

Mermod is one of the few musical box manufacturers to have produced a disc-playing musical box driven by an electric motor—the 26inch disc-size Electric Stella Orchestral Grand. This was first advertised in the 1902 catalogue.

THE PIANOLA SHOP CLOSES

by Dan Wilson

NOBODY who could lay claim to being a player piano enthusiast can have lived in England this past decade without having heard of the unusual and in many ways remarkable shop run by Mary and Eddie Belton in Brighton. Here, in this famed Victorian holiday resort, with its incredible Regency Pavilion, pebbly beach and the advantage of being just one hour on the old "Southern" out of London — plus the disadvantage of the day-trippers, here was a haven of perforated paper, rubber cloth, little valves, pneumatic motors and the ever-present sound of music-by-foot. Dan Wilson looks back over about eight years of cups of tea, countless cats, clapped-out jangleboxes, fine pianos, Chaminade and, above all, friendliness

THE Original Pianola Shop has closed its doors for the last time. People are still rebuilding and offering player pianos and there is even a remaining shop—Pianorama in Windsor—but Mary and Eddie Belton were somehow a special case. They did the job in ramshackle style. Their final abode, Nos 102 and 102a North Road, Brighton, was a handsome old corner shop with ornate painted panels in blue and red and two display windows—one devoted to QRS rolls and minor antiques and the other usually given over to the current plum piano, a Blüthner with the Hupfeld tram-driving gear or a stubby Steck grand. Over the street hung a single sign—a portrait of Chopin in oils. What commercial piano company would ever have thought of a touch like that?

Inside, Eddie ran a sort of roll bar—his half of the shop had been a pub—while the oaths from next door indicated that Mary was supervising operations on pianos. Eddie, tall and courtly with pebble glasses, would usually be peering resignedly at his heaped shelves of Chaminade rolls ("wish they'd do a television programme on her and clear us out . . .") or packing up what appeared to be a very respectable flow of mail orders for QRS rolls. Having myself bought rolls from the Aeolian Corporation and (Larry Givens) Melodee by post when they attempted to compete with QRS in the 1960s, I could never see how Eddie, after paying duty, could at his prices pay for his cups of tea, never mind his suit or the rent.

Good and loud . . .

Mary likewise gave good value. Too good, perhaps; player piano restoring is a tug-of-war between doing it properly so that you do justice to the machine and give the new and ignorant owner an inkling of its potential scope—and charging accordingly—and giving in to his ignorance and stinginess and just getting the thing to play foxtrots good and loud with, if possible, the keys going up and down. This battle, between what the customer starts off wanting and what he might (and connoisseurs would prefer him to) progress to later, has racked the pianola trade from the start. It divided the American and English branches of the Aeolian Company and even, in the end, the latter its own chief salesman and prophet, Reginald Reynolds. If you visit the USA you will find player piano men in every Yellow Pages section—but only a handful will have seen with their own eyes a piano fitted with a Themodist action! Suffice it to say that, being Rolls-Royce minded in the matter, I have often found the compromises of trade a mite distressing.

The cats and others

Mary, short, sharp-faced, forthright and chain-smoking, was the complete cynic, with a soft spot for only one kind of customer: the furry or winged. If she ever restored a reproducing piano perfectly for the sake of it and let it go at a throwaway price, it must have been to a cat. The house was full of rescued strays and if a drowsy bee or damaged wasp should drift into the premises, all business had to come to a stand until it was succoured. Customers were gently bullied about their culpability for such things as vivisection.

The Pianola Shop's especial virtue lay in permitting you to try out rolls on one or two pianos jammed into the roll room. Usually these were discordant Triumphs or cheap Aeolians being shaken down for the tuner, but from time

PVF style 711 tunesheet

From Colin Thorpe comes this tunesheet for a late-period PVF style 711 cylinder musical box. The original is a richly-coloured lithograph. This manufacturer appears to have used several styles of tunesheet for the same style of box for with this same musical box came several other tunesheets which, although bearing the legend "Style 711", do not carry the initials PVF. **See also the illustration on page 250.**

to time Mary would park a very nice Steinway or pre-Great War Steck on Eddie and one could be seduced into buying some of his mountain of Mendelssohn. Regular customers thus got very familiar with the freak bargains that pianos can sometimes offer: I still remember a theoretically low-grade Stroud with single-finger tracking which had the bass growl and treble silver of a Steinway. The Themodist primary valves could be heard working but it wouldn't bring out the theme. Mary was not at fault: the tubing was perfect and she had left it untouched. Treble and bass theme tubes had been crossed over at original manufacture (you could tell from the lengths) and never corrected—astonishing. Once put right, the Stroud was a £600 job going at £200.

Proper old janglebox . . .

The most amazing thing about the economics of the Pianola Shop was that whereas most restorers one meets handle their own transport, tuning and final setting up, Mary Belton hired other people to do these things, concentrating herself on the donkey work of rebuilding the stacks and pneumatics and providing the business sense. Outside valuations had to be done by bus (after Eddie had to give up driving due to illness) or were abandoned altogether, Mary buying pianos blind over the phone. This was conducted most shrewdly. I was once in the shop when she asked a seller cheerfully whether he could see his face in the casework. Upon (apparently) her receiving the answer no, her attitude switched like a policeman's in the interview room: "Oh. I see. It's a proper old janglebox, then? Beer rings on top and moth inside?" It sounds risky but (not being a dealer) I'm willing to bet that just as many Joannas thus purchased turn out, when the dust is blown off, to be Duo-Arts as total duds. At all events, the Pianola Shop did not close because of financial crisis, but because the Beltons felt it was time for retirement—at Peacehaven, not far away.

From one pianola fanatic—regrets, and thanks.

The above article first appeared in the Bulletin of the Player Piano Group and is reproduced by permission of the Editor.

Editor's themodised note: I had wanted to write something about the Beltons myself, but while I was sucking the end of my ball-point pen (will I *never* learn?), Dan Wilson beat me to it. Over the years I have bought a number of instruments from Mary and each transaction has been a memorable event! Recently she agreed to sell me her own pride-and-joy, a massive 65/88-note dual Steck which, incredibly, she kept in a tiny upstairs room. As the door was an askew, squinch-type with a maximum width of about twenty-one inches with a right-angle bend to a near-vertical Dutch-type staircase of the same width, I said I would buy it when it was downstairs! The whole thing had to come to bits, but it all went back together and the piano now sits in with my Orchestrelles, barrel organs and pipe organ. Mary Belton may now be living in retirement, but I don't doubt that sooner or later there will be a pedal-piano in her home somewhere for her to play her favourite dance tunes on. But can Brighton's North Road ever be the same again without that overtly eccentric little corner shop against whose window puzzled passers-by would press their peckers to peer in at a pianolist from Petworth, Pinner or Penrith ponder-polished Peerless in the petite piano parlour?

Custom-cased Orchestrelle

Most of the instruments produced by the majority of manufacturers tended to be in perfectly standard cases. Unlike Henry Ford, though, who allegedly said "you can have it any colour you like so long as it's black", most piano and organ makers offered instruments in mahogany, oak or rosewood cases. Very occasionally, however, a wealthy owner would prevail upon them to follow his specific whim. The rococo-cased Chickering piano is a good example. Here is a large Aeolian Orchestrelle Model XW in a Jacobean-style oak case. It was sold last December at the Vaux sale.

Making The Best of Your Music Box Case

Arthur Cunliffe takes a look at the casework of the musical box and concludes that while it is impossible to restore the case exactly as it was when new, there is much you can do to "make the best" of what you have.

TWO or three years ago, during a meeting of the Musical Box Society, I chanced to hear a fellow member say that in his opinion the first task in any overhaul of a musical box should be case restoration. What sound advice! Surely, what can be better than having a good, sound and well-finished case ready to house the restored movement!

Having said all this, one has to decide what constitutes a case restoration. It is quite impossible to have a case *exactly* as sold originally. The very passage of time prevents this, but I feel one should aim to make a case as near as possible to original, not worse, and certainly not better. Hence my title, "Making the Best of . . ." rather than "How to Improve . . .".

First ask yourself the question: What work is necessary to make the case better? Now ask the question: Have I the ability to do this work? If the answer to the second question is yes, then I hope the following hints and tips will be useful. Please note that my remarks will be concerned more with the structural side rather than the refinishing side of the job.

Spend some time examining the case to be restored and note carefully any faults and possible snags. Then, before even removing the musical movement, examine your tools, especially your screwdriver sets. Note how badly ground and generally run down they are! How many screws have been damaged and how many scratch marks have been made by faulty screwdrivers! Screwdrivers must be ground with straight ends and then cross ground to fit screw slots exactly. Drivers with rounded corners and merely ground to a pointed V-shaped blade will tend to rise out of the screw slot when pressure is applied. Always use the largest driver possible to fit the screw slot. The width of the screwdriver blade must always equal (or nearly equal) the width of the screw slot.

Using your correctly-prepared screwdrivers, remove the movement from the case being careful to (*a*) replace all fixing screws back in their correct locations, and (*b*) have a safe home for the movement whilst the case is being worked on. When working on any musical box case please remember the following points:

1. Keep as much of the original case as possible. Every piece cut off or sanded off cannot be put back again.
2. Use glues, timbers and materials that are in keeping with the period of manufacture. Most modern quick-dry "Polly put the kettle on" adhesives are *not to be used.*
3. Stop woodworm attack by all means but do not replace casework unless absolutely necessary.
4. Work carefully on a clean and uncluttered workbench.
5. Replace every screw, catch, lock or any other bit of case furniture, in the same place as originally fitted, and fitted the same way round as original.
6. Your work and any replacement made must be of the highest workmanship possible with no attempt being made to deceive.

Initial preparation

After removing the movement, remove the lid, keeping a careful note of screw and hinge positions. I find it useful to lightly scratch on the back of each hinge the letters L/H and R/H to denote position. Scratch on the side facing the lid so that accidental reversal of the hinges can be avoided. Next remove the tune-card and pins, keeping them in a safe place for re-fitting later. To prevent scratching of any part of the box or lid, I find covering the bench with a thick pad of cloth can be useful.

Screws. Should a woodscrew break off during removal the remains must be removed. Attempting to re-drill and force another screw down by the side of the broken screw nearly always leads to the second screw interlocking with the first, and then that breaks, too. Then you have got trouble! Why not do it properly in the first place and drill out the broken portion? Where screw holes have become enlarged, the old dodge of gluing in a piece of soft wood as a plug is useful. Allow the glue to set before re-drilling the hole.

A general note here about screws and their fixing may not be out of place. A screw forced into wood without drilling has much less grip on the wood than a correctly fitted screw. Again fitting screws in this forced way can split the wood and result in the screw breaking in half. Ideally, two sizes of drill should be used. One to give clearance for the shank, and the primary drill to give relief for the threaded portion of the screw. If the hole is correctly prepared, the screw will go in without wandering off centre or becoming too tight. It helps to dip the screw thread into wax before the final fitting.

Lids

If the lid is undamaged and all the inlay and stringing are there, why attack it with glasspaper? Please try cleaning the dirt out of the wood first, and polish the lid trying to keep the original patina. Remember, if you sand away half the thickness of the veneer it is done once and forever. The person trying to re-restore the case in 80 to 100 years time is not going to thank you your efforts!

Having said this, however, there is no justification for leaving a lid in a tatty, broken or previously badly restored state. Missing inlay and stringing should be replaced. Splits and cracks should be re-glued.

During the passage of time some

lids have sustained damage to the lid edge. In the case of later boxes having the black ebonised bevelled edge, severe damage can be repaired by carefully cutting away the damaged part. Only the damaged length should be cut away, and only the bevel up to the flat part of the lid. Now cut a matching piece from a close-grained wood such as red mahogany or ramin. Prepare this carefully so that it makes a good butt joint and then glue and clamp it carefully into place. Leave a day to harden off (see Fig 1). The job is completed by carving to shape, sanding down and finally ebonising with black spirit-based polish, sometimes called black French polish. This procedure is better than trying to build up a damaged portion using plastic wood or stopper which is seldom successful.

Fig. 1

Beading and stringing

Some cases have a simple half-round beading on the edge of the lid, often with a central line of boxwood stringing. The trouble is that this beading is often of rosewood and even small sections of rosewood are quite unobtainable today. Here are two possible ways to tackle the job of replacing missing beading.

One. Select a length of hardwood timber of a colour near to rosewood. Some timbers of the mahogany family can be near. Use a tenon saw to cut a groove lengthwise down the centre of one of the sides. This must be deep enough to glue a piece of 1/16 inch flat boxwood stringing on its edge (see Figs 2a, 2b and 2c). Glue to the edge of the lid, and clamp in place. After the glue has set, shape and glasspaper to a half-round shape (see Fig 2d).

Two. This second method is not all that easy to do and may be tried if all else has failed. First cut eight lengths of rosewood veneer slightly longer than the length required and half the thickness of the lid. Glue together two sets of four leaves keeping the edges as close together as possible. Allow to set under pressure (Fig 3a). After these two pieces have fully set, glue the 1/16 inch boxwood stringing on edge between them, hold in place with veneer tape and once more allow to set under pressure (Fig 3b). Finally complete the job by gluing to the edge of the lid, holding in place with clamps during setting. Shape to half round and sand down. This done carefully does work, and produces some interesting grain-ing effects of the glue lines, but it is a difficult and long-winded way of doing the job. Please remember that at the corners of the lid the half-round edging must be finished with a 45 degree mitred joint.

Missing stringing can be replaced without too much trouble, but it is essential to clean old glue and dirt out of the groove before fitting the new length of stringing. If most of the line of stringing is missing it is better to take

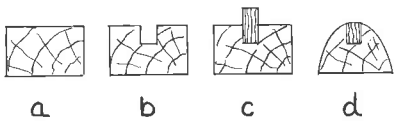


Fig. 2

out the small remaining piece and replace the whole length. Concentrate on making good corner joints. If replacing only a short length of stringing make the join at an angle and not a square butt joint. If you are thinking of tackling a few boxes, it is essential to build up a bank of many different veneers. Sometimes borders need missing pieces replacing one at a time with careful colour and texture matching.

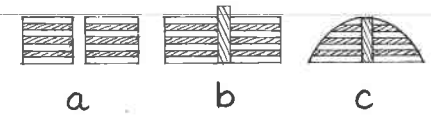


Fig. 3

In the case of missing parts of an inlay the stock of various veneers is essential. Not only does the colour of the wood matter, but also the graining and texture of the veneer is most important. Matching as near as possible to the original is also important.

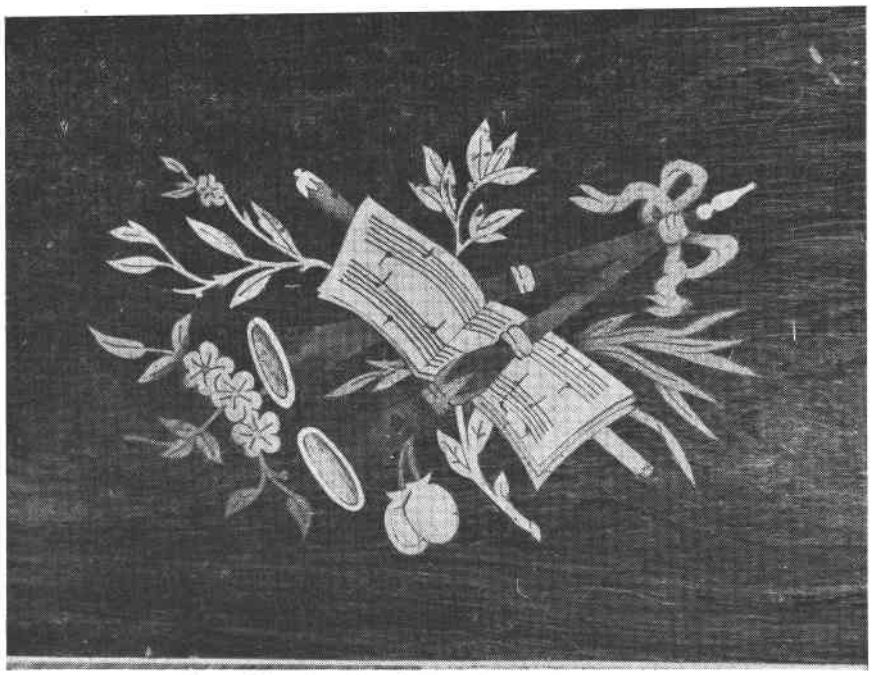
An example of the type of repair that can be undertaken without too much panic is the flower and leaf type of inlay. Supposing a leaf or a petal of a flower is missing, proceed as follows: Clean away all the dirt and remaining glue from the groundwork. Scratch lightly to help the glue to get a good hold, and please remember to use a good brown glue. Using good-quality tracing paper trace out a pattern of the missing shape and transfer this shape using carbon paper to your piece of replacement veneer. Make sure you trace it so that the grain is running in the right direction. There are on the market many good craft knives, so select a type you feel happy using, and cut out the shape cutting on the *outside* of the carbon line. If it breaks or the knife slips, start again. The words "it's near enough" really mean "it is not very good, and I can't be bothered to do better".

Carefully sand off the edge of the cut-out piece, and try it in position. Most likely the piece will be just too large to fit into place. Next, hold the new piece in place and score round the shape lightly with your craft knife. Put the veneer to one side for a moment whilst you cut through the markings on the lid and remove the tiny waste bits of veneer. Go carefully, and when you try the new shape in position it should fit perfectly. Use a "brown" glue to glue into place and hold the work in place with the special double gummed veneer tape. It also can be useful to place a flat weight on the part whilst the glue is setting. Do not attempt to replace too many parts all at one go. It is far better to build up a missing veneer piece by piece rather like a jig-saw puzzle.

Flatting down should be done only when all the missing pieces have been replaced and all damage repaired. Small gaps should be filled up with Brummer stopper. Various shades of stopper can be mixed together to obtain exactly the correct tone. Flat down only as far as strictly necessary using a cork sanding block and good quality glasspaper. I have found Lubrisil glasspaper in grades 320, 240 and 180 to be really excellent. The paper is well made and any clogging can be cleared easily by lightly rubbing a brass wire brush over it. The type of wire brush used for cleaning suede shoes is ideal.

Inner glass lids

Broken glass should if possible be replaced with *old* glass. This sometimes can be obtained from old Victorian picture frames, usually obtainable quite cheaply from local auction rooms. There seem to be two methods of holding the glass in place. The first and by far the most common is by



From the collection of Dr Smyly of Co Leix, Ireland, comes this illustration of a fine 1880 period musical box lid inlay. So often this is the part of a musical box case which has suffered most damage through objects, usually flower vases, being stood on the box. This type of detail taxes the restorer to the full.

badly affected, then replace the use of fine glazing pins and a putty. The second method is to hold up the glass with a quarter round wood beading pinned into place. The second type presents few difficulties, but the snag in the first type seems to be the replacing of the putty. Common putty does not seem to be correct and takes far too long to dry out anyway. Here is one way of effecting a repair.

Break the rule of not using very modern materials and use Exterior Polyfiller. Next obtain some water soluable powder paints in black, red and brown. Mix the colour with the Polyfiller powder to a shade to match the original "putty" and mix to a fairly thick paste. Using a putty or an old table knife putty up the lid and allow a day or two for the filler to dry out. If necessary final shaping can be done using a sharp knife, finishing off with glasspaper. To complete the job the "putty" should be given two brush coats of French polish. Done with care it is possible to produce a result that is very little if any different from the original. I have found that there seems to be no shrinking and no parting even after a year or so.

Sometimes the inner glass lid has been removed from the box. Tell-tale screw holes in the back give the game away. It must be a matter of personal choice whether or not to put a replacement lid back into the box, but I would always advise to do so. Why there should have been a time when people took lids out of boxes seems difficult to understand. Maybe the glass got broken and it was easier to take the lid out and throw it away rather than replace the glass.

Woodworm

Should woodworm have attacked the case, it is vital that all the remaining grubs are killed off. It may be necessary to give two doses of treatment, the second a month or so after the first. The life cycle of the woodworm beetle can take as long as three years, so this gives an indication of the period of time the case will have to be checked for the appearance of new flight holes. There are on the market many excellent fluids for treating woodworm attack, and if they are used in the proper manner there need be no real fears. Severe attack can be controlled, and spongy wood can be firmed up, so there is no real need to make a new case for your musical movement, unless the case is so far gone that it is only the woodworms holding hands that are keeping the box together! Only once have I seen this condition.

Some movements are held in place by screwing into the base of the box. If the base and/or soundboard is so badly wormed that there is a danger of the movement falling out, or the sound is being base. Use seasoned pine or deal and not new unseasoned timber. Again old Victorian dressing tables and sideboards can prove to be a useful source of well-seasoned timber. All joints and construction methods should be in keeping with the original, and made to the same standard of workmanship.

Often when the bottom of a case is very badly wormed one of the ends of the case is wormed also. Access to the bottom can be made by carefully cutting away the bottom inch or so of one end. A new bottom panel can be made and slid up into its case groove via the end. A new bottom section then has to be made for the end panel, glued into position and finally painted with scumble to match the existing part of the panel. No doubt there are other ways of tackling the problem of too badly wormed portions of box, but I have found this method works and to be worthy of consideration.

Finally, a word or two about case furniture. Under this heading come things like locks, hinges, lid supports and key and control escutcheons. In the case of hinges, these should be pressed back into shape if distorted. If a hinge is so cracked or worn as to have very little useful working life left, replace with a good quality brass hinge of a similar pattern and type. If necessary cut or file the new hinge to the correct shape.

Locks can usually be made to work again, and as they are of the simple two-lever type, it is not too difficult to re-file an old key so that the lock is operative again. Pack the working parts with grease to prevent vibration before refitting the lock to the case. Vaseline is quite good for this job. In all instances screws and fixing pins should be polished and slots filed square and tidy. After final fitting all these items can be lacquered.

Nickel plated parts

Some of the later period musical boxes had escutcheons added to the control levers and indeed round the key hole. These can be a source of vibration and should be checked carefully. If the nickel plating has been nearly rubbed off, and you feel it would be perfection to re-plate these items, remember the average plating shop will polish them with high-speed buffs which could remove detail. Also items tend to get lost in the day-to-day running of a busy plating shop. Why not try your own nickel plating? It is quite easy really, demanding only the most careful preparation and cleaning of

the components to be plated. If you write to Mr S Greenway, 25 Pine Court, Cubbington Road, Lillington, Leamington Spa, Warwickshire (tel: 0926 24706) enclosing a SAE, he will send you all details of a small nickel plating plant he has marketed for home use. I can vouch that Mr Greenway's kit really works. Great fun and I should think not too costly. Whilst on the subject of helpful people, for the supply of veneers and all the related materials, I can recommend the Art Veneers Co Ltd, Industrial Estate, Mildenhall, Suffolk. They also produce an excellent book called "Wood Veneering Manual". This is well worth having, listing not only all timbers, but explaining all methods of veneering carefully and simply.

I hope these few hints and tips will have helped in some small way. There will be other methods of working, of course, and I have no doubt some of these other methods are superior, but at least I hope I have given food for thought. If you are in any doubt about any process mentioned in this article please practice on a scrap of wood first. Only work on the actual case when you are confident all will be well. Good luck and many happy hours of work!

Player-Piano Topics

The Player Piano Clinic answers . . .

GERALD STONEHILL presents a selection of questions which he has received over the past year or so from player piano enthusiasts and sets out his answers. If you have any questions for the Player Piano Clinic, either send them direct to Gerald Stonehill or via the Editor

Q: **Why are the theme "snake-bite holes" in a Duo-Art roll so much smaller than the other perforations? Correspondingly, why are the theme duct holes in the tracker bar so much smaller than the others?**

A: Theme holes are smaller, because it is intended that a single perforation should be used, as when one note in the chord is to be themed. Such a note is fractionally offset from the rest of the chord. When there was no danger of theming subsequent notes, double perforations were used for safety. The duct holes in the tracker bar are wider to compensate by width for the shortcoming in length of the double perforations.

Q: **How does one recognize whether the pouches in a given Duo-Art stack were originally "sealed"? Can it be done visually? I have heard vague references to the presence of a fine white powder which is sometimes found in Duo-Art stacks. Was this the talc powder used to eliminate the stickiness of the rubber solution?**

A: You cannot recognise sealed pouches from unsealed ones. There is in any case no need to do this, since they were always sealed. The fine white powder which you refer to might be anything, from paper dust to leather dust, I would be surprised if it was talc powder.

Q: **Is the chemical composition of modern "rubber solution" (for repairing bicycle inner tubes) the same as that originally used when the reproducing mechanism was manufactured? Was it that composition?**

A: I cannot give you a formula, but the solution is the same.

Q: **If the pouches in a given stack were originally sealed, should one expect that seal to have deteriorated by now? Is the seal permanent? Was the sealing "rubber solution" applied to the pouches in all the Duo-Art stacks?**

A: The seal on the pouches does not deteriorate as such, but wear on the perimeter of the pouch would cause leakage, just as leakage occurs on accordions at the hinge point. All pouches, as stated above, were sealed, but early Duo-Arts were sealed with white of egg before introduction of the rubber solution.

Q: **If the seal has deteriorated (leaving the normal porosity of the leather left), should the pouches be resealed to assure uniform porosity? If the pouches were not sealed originally, should they be sealed now? If my pouches were originally sealed, why are they porous now (they are in excellent physical condition)?**

A: This question is largely answered above, but it is wise to re-seal the pouches, making sure not to use too much of the solution.

Q: **The bleed cups used in a Duo-Art stack must have been selected for proper pouch performance, which of course would reflect whether the pouches were sealed or not. Were the same size bleed holes used with all the D-A stacks? If all the pouches were not sealed, did they use different bleed holes for sealed and non-sealed stacks? The bleed hole size in my Duo-Art stack is drill size No. 63 (.037" dia.). Does this information aid in determining whether or not the pouches were originally sealed in this stack.**

A: The same size bleeds were standard in D-A stacks.

Q: **If the pouches were not sealed originally, and are to be sealed now, should the bleed hole size be changed (larger) to compensate?**

A: The bleeds should not be enlarged.

Q: **How does uneven porosity of the pouche in the stack manifest itself in the performance of the Duo-Art?**

A: As a pouch begins to leak the piano has improved repetition, but a dull touch, since the pouch rises more slowly. Later on you have a slow note and no response at all.

Q: **According to Durrell Armstrong of Player Piano Co, Wichita, Kansas, U.S.A., most *player* pianos used bleed holes in the range .026"-.032" (#71 - 68 drill size). Why are the D-A bleed holes so much larger (No. 63, .037")?**

A: The D-A bleeds are larger since a single-valve system was used and larger holes ensure better repetition. Everything has to be at maximum for single valves. Some collectors have changed their pianos over to double-valve systems and find that the rolls fail, since the response is matched to the bleed hole size.

Q: **Why was heavy bellows cloth originally used to seal up the long bar in which the bleed cups are housed? Is it necessary to replace this cloth with the same type, or can thin pneumatic cloth be used?**

A: Heavy cloth was used on the vent rail to make it easier to peel off in case the bleeds had to be cleaned. Thin cloth is okay, but rubberized cloth perishes in time.

Q: **In those cases where pouches were not sealed (either in the stack or elsewhere) how much bleed was provided by the pouch itself and how much by the brass bleed cup itself? Alternatively, could you**

provided me with the ratio of the bleed effect associated with the porous pouch and bleed cup?

A: A leaking pouch can leak more than a bleed.

Q: **Having performed a simple mouth test on the bass and treble theme valve pouches in the expression box, I find them about as porous as the stack pouches. Do these two pouches have to be air-tight for optimum performance? Were these pouches originally sealed also?**

A: The pouches in the expression box have to be air-tight. They were also sealed. A mouth test such as you describe is unreliable since the leak could be elsewhere and frequently occurs due to the cracking of glue around the nipples.

Q: **With regard to the Duo-Art pump, which degrades vacuum capability more, a leaking inner flap valve or an outer one (with the same leaking effect)? Do you recommend replacement of the inner flaps as a general rule, or is it sufficient to "brush them up" to remove dirt and raise the nap of the leather? When a Duo-Art pump is operating properly (after rebuilding), how many inches of water should it be able to pull? Do you know the original design specifications on this parameter?**

A: Probably an external flap leaks more than an internal one. If re-building the pump the leather should be replaced. Brushing the leather often causes them to leak since they are usually more air-tight when bedded in. The test of a re-built pump is that the wheel cannot be turned when the holes are covered. The pump should be capable of pulling 85 inches, but the factory tested them only at 60 inches for a period of 24 hours.

HAIL TO THE SOUND OF THE STEAM ORGAN

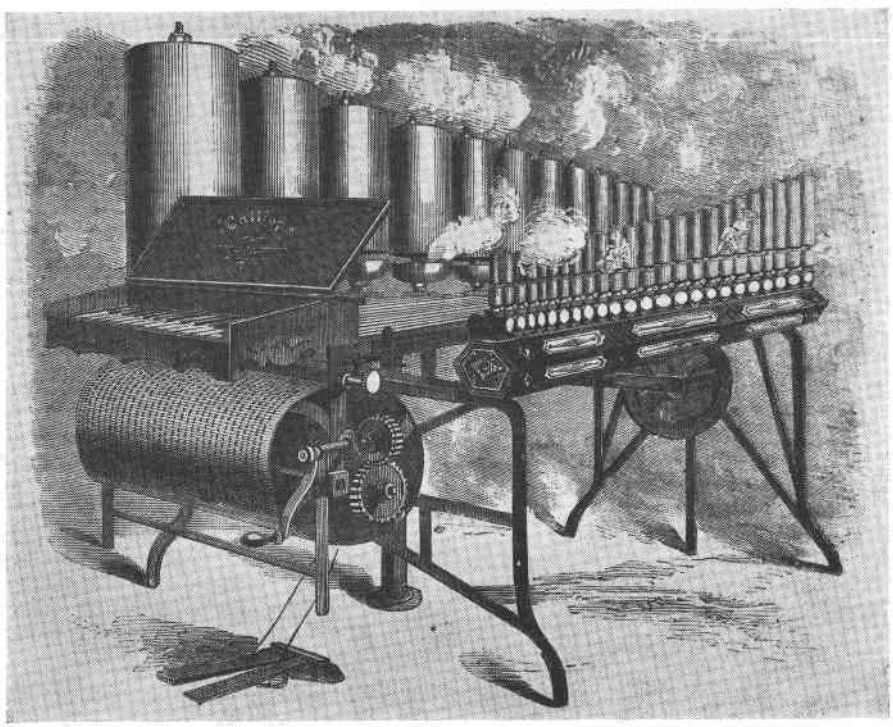
TUNED locomotive whistles, according to the historians, formed the very first steam organ, subsequently to be dubbed by its American inventor with the unlikely name *Calliope*. And the company which put the prototype into production was obviously doomed to failure because of its name—the American Steam Piano Co.

Not that more recent Calliopes present an appearance either distasteful or musically objectionable—your editor recalls standing in the foyer of the Marriott Hotel in Saddle Brook, New Jersey, while a small Calliope, brought in from the unseasonal rain outside, was put through its paces on the carpet. This one worked less scaldingly than its precursors as only air at some extraordinarily high pressure was forced through its whistles. Suffice to say that the hotel was thrown into confusion and traffic on the highway outside promptly and nervously kept to the speed-limit.

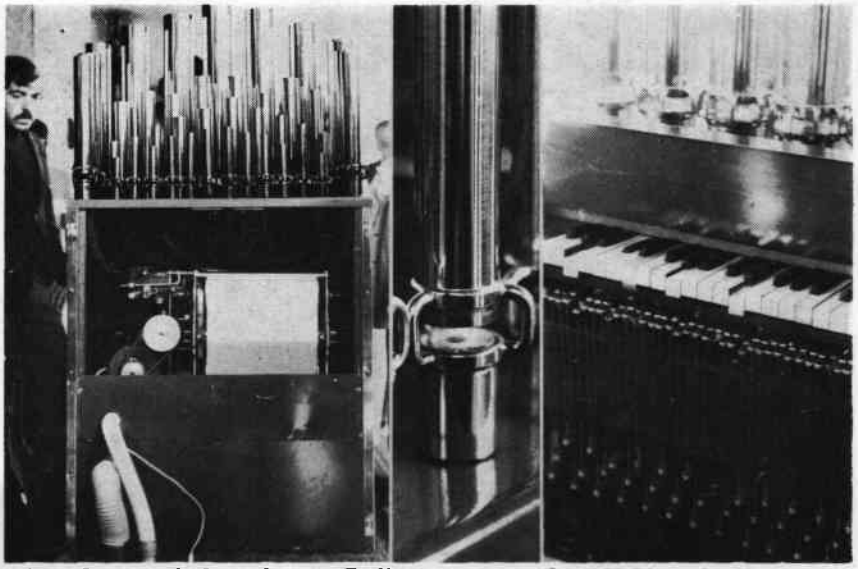
Names like Tangley, Air-Calio and Calliophone all send the adrenalin rising in calliope buffs but even in America today the genuine "steam organ" must be a rarity. While rummaging amongst the treasures hidden away in the workshops of Walt Bellm in Sarasota, I actually found one. Not that I suggest that Walt Bellm had *lost* it, for it would be hard to lose so impressive a piece of plumbing. It was, though, the first (and only) steam organ I have ever barked shins on and, although then mute, it left an impression upon me which time (and liniament) has yet to obliterate.

So it was of interest to receive from Michael Miles the following notice which appeared in *Punch* (indeed, where else!) for November 26th, 1859, describing the instrument which its financial entrepreneur, Arthur S Denny, put on exhibition at the Crystal Palace, Sydenham, London. The inventor was Joshua C Stoddard, a Worcester, Massachusetts, beekeeper.

THE Crystal Palace is a place at all times worth a visit, and it is especially worth visiting just now. Not only are fresh air and unadulterated sunshine, free from fog, to be obtained there (and these are luxuries which anyone who has to live and breathe in London would willingly at this time give a half-crown and half-day for), not only are the pompones and chrysanthemums in blossom, and the orangetrees and evergreens all wearing their best looks, as befits the favoured inmates of a



Joshua C Stoddard's barrel and finger calliope (pronounced kall-eye-o-pee and not kally-oap) which entrepreneur Arthur S Denny brought to London to show in the Crystal Palace at Sydenham in November 1859. The original engraving appeared in The Illustrated London News.



Joshua Sparrow's brand new Calliope seen at the MBSI 25th Anniversary meeting in 1975. Centre : one of the pipes in close-up showing the full-circle mouth and supporting ears. Right : the Master Locoman's fists on your keys . . . Bottom : a finely restored calliope and truck.

nice warm Winter Garden; but, added to the other known attractions of the Palace, there has lately been erected one whose fascinating influence will doubtless draw to Sydenham a myriad of visitors. We hope we shall not startle our more nervous-minded readers when we state that an INFERNAL MACHINE is now on view, and may be publicly inspected in the Central Transept, where it goes off daily at one and five o'clock. For a description of this curious but diabolical invention we are indebted to a contemporary:

"A new American invention called the 'Calliope', or 'Steam Orchestra', was exhibited, for the first time in England, on Saturday last, at the Crystal Palace; attracting, of course, considerable attention by this promise of novelty held out in the title. Nor was the promise altogether unfulfilled. The 'Calliope', if not one of the most harmonious of musical instruments, is certainly one of the most original ever heard in this world, since the discovery of the bagpipes and the hurdygurdy. It is, in fact, a species of organ, the pipes of which are worked with steam instead of air. Externally, it has more of oddity than of beauty in its favour. Upon a common counter-like table, some thirty odd brass cylinders, of varied dimensions, stand up perpendicularly in two rows, while at one end are keys that set in motion the mechanism by which they are made to send forth sound. The same effect is also produced with a barrel, working by means of a handle."

So the grandly-named "Calliope" is in point of fact a barrel-organ, with the extra disadvantage (that is to say, as far as its hearers are concerned) that its so-called music is extractable by steam; so that its motive power becomes a greater nuisance even than an organ-grinder's, inasmuch as it won't tire and has no body to be kicked.

"One manifest drawback to the new invention is, that at each note emitted a puff of steam is sent forth also. The consequence is that, after a few minutes' vigorous playing in the Listz manner, the instrument is surmounted by folds of vapour, heavy and dense-looking as the sculptured clouds in Westminster Abbey. This in the Crystal Palace produces an effect rather picturesque than otherwise, perhaps, and as the steam has plenty of space in which to escape, no manifest inconvenience results. But we imagine that in a drawing-room the 'Calliope' would be calculated to disseminate on all sides illustrations of one of the worst features of 'washing day' scarcely to the taste of dress-coats or crinoline."

This sounds somewhat penny-a-linerish, but it is by no means an exaggerated statement. Our first notion indeed on finding what great puffs the instrument emitted was, that some of our composers would be anxious to employ it, seeing that their music will not go off without puffing. We thought, moreover, that had we been asked to christen the Calliope, we should have tried to find a more befitting name for it. To call it a steam orchestra is contrary to fact, for the sounds which it produces can in no way be compared to those which any orchestra that we have heard has given birth to. We should ourselves have rather called it the Whistling-Eccalobeion, or Steam Music Hatcher, though there would certainly have been a fair objection to our title, for the music which was hatched was not music at all, but in fact a most unmusical most melancholy substitute. Indeed we wonder that the talented inventor of the instrument did not on first hearing it become a sort of *Frankenstein*, and fall an aural victim to the *Monster* he had moulded.

Tips from the Experts

Tuning scales

Arthur Coombs writes from East Dulwich :

I WAS responsible for compiling the list of tuning scales for Polyphons and would like to draw attention to a few errors in Graham Webb's book so that members and others who hold copies of the book can correct them.

6½in Polyphon Number 7 note should read E*b*

9⅛in Polyphon Numbers 8 and 9 notes should read B*b*

11¼in Polyphon Number 44 note should read G

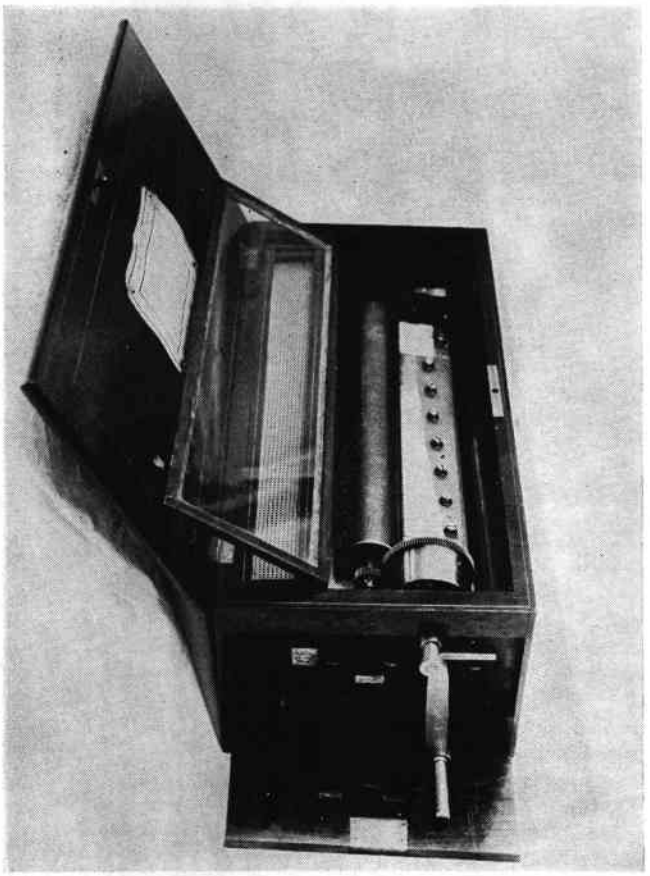
15½in Polyphon Number 40 note should read C#

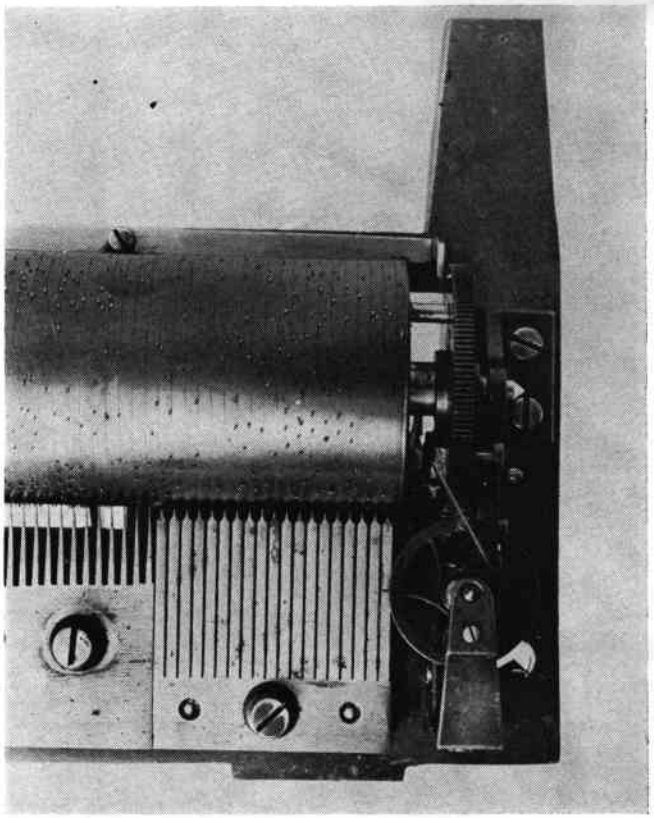
The remaining sizes are guaranteed correct.

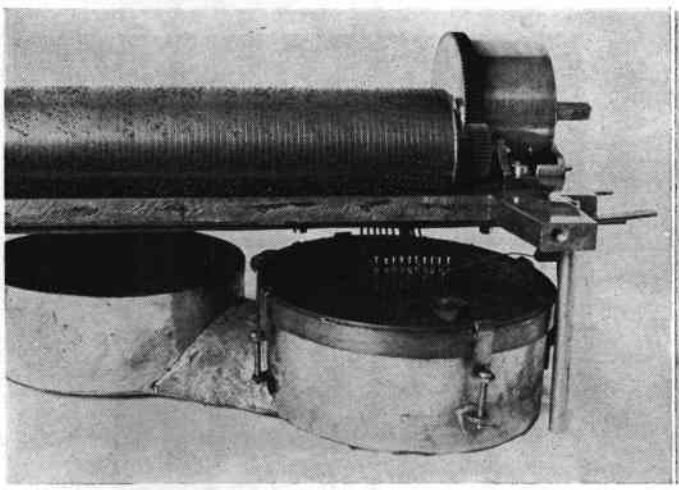
Incidentally, some of the Symphonion scales are hopeless. I do not know who prepared them but as published they are not correct.

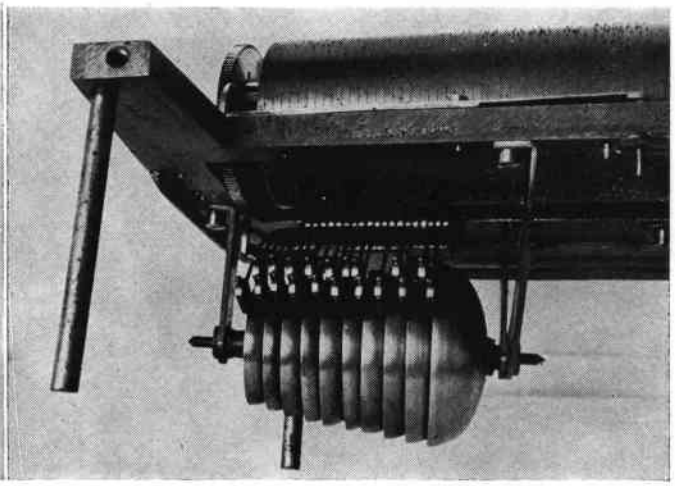
Editor's comment : *The comb tuning of the Symphonion appears to change with different models, the change being by way of transposition of the whole comb. It may be that this is one of the problems Arthur Coombs has come up against. A far more important anomaly, however, remains unsolved and this concerns the tuning scale for the 24½in Polyphon. The circumstances concerning this were set out on page 210 of Volume 6 and so far nobody has come forward with any comment let alone explanation. For the benefit of new readers, the discovery, briefly, is that two particular discs have been found—numbers 4022 and 4315—which play discordantly on an otherwise perfect instrument. These are definitely 24½in Polyphon discs, yet at least two notes are undoubtedly incorrect.*

HIDDEN DRUM AND BELL BOX BY METERT



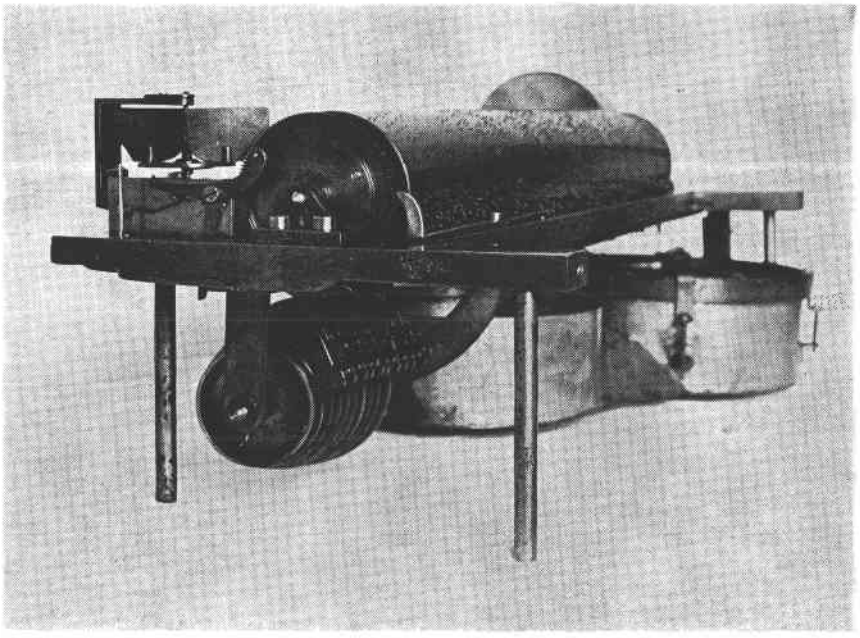






THIS outstanding specimen of an early hidden drum and bell box is the property of a Sussex collector who wishes anonymity. He comments that his box, bearing the stamp of H Metert (far right) bears a remarkable resemblance to one illustrated on page 121.

The box bears the number 5857 and has ten bells, nine of which have twin hammers, nested beneath the bedplate. The drum head is 4½in diameter and has a vellum head struck by ten hammers and damped by a triangular wire damper. A characteristic of the drum is the attached resonating chamber which has an open top. A fourth control lever, visible far left and on the front cover, cuts out the drum. The bells blend so well with the music that there is no provision for disengaging them.



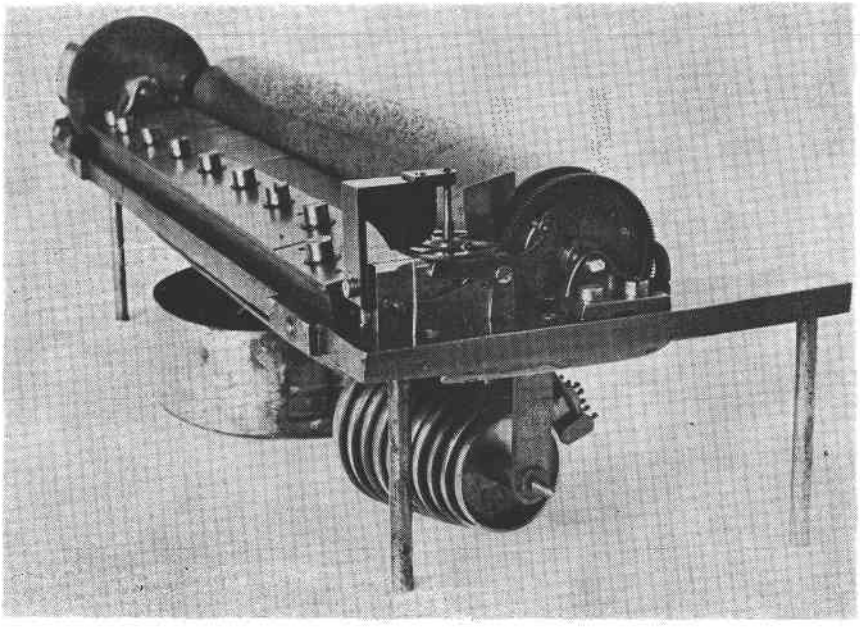
Boxes by this maker are very scarce as indeed are items of such quality.

The pictures are by T P Murray and A Hallas.

The cylinder is 13in long and 2¼in diameter. The drum comb has 10 teeth, that for the bells 19, and the musical comb 96. The box measures 20½in long, 9½in wide and 7in high. The finish is black with brass and enamel inlay and brass stringing.

The tune sheet has the Langdorf trade mark which suggests that the box may date from the period when Metert & Langdorf were in partnership. As for the date of the box, this would appear to be around 1850-60.

Of the music played, Meyerbeer's *Le Prophéte* was first performed in Paris in 1849 and the penultimate tune, *La retraite de Napoleon,* was written by the popular amateur Louisa Puget prior to 1840.



A VISIT TO EAST GERMANY

by Q David Bowers

RECENTLY I had the opportunity to travel with Claes Friberg to visit the Deutsche Demokratische Republik (East Germany or, as it is abbreviated there, DDR). The trip by car began in Rostock, DDR, and continued through to East Berlin, Dresden, Leipzig, and other centers.

Years ago the eastern part of Germany was a major factor in the automatic musical instrument business. Indeed, the two largest firms in the industry were headquartered there: the gigantic Polyphon Musikwerke in Leipzig was the world's largest manufacturer of disc-type music boxes, and not too far distant, Ludwig Hupfeld in the same city was the world's leading manufacturer a decade or two later of pneumatic-type automatic instruments. Scattered throughout what is now East Germany were dozens of other manufacturers, some large and some small.

Our trip began with a ferry boat crossing from Denmark, leaving Gedser on the Danish shore and arriving an hour and a half later in Rostock on East German soil.

Being an inveterate tourist I immediately began to enjoy the many old buildings, some dating back to medieval times, which greeted us a few minutes after our initial arrival.

The first stop of musical consequence was made later in the first afternoon of our trip when we arrived at 74A Schonhauser Allee in East Berlin—the site of Giovanni Bacigalupo's organ factory.

On Schonhauser Allee, one of the busiest streets in that city, a large red and yellow sign proclaims the establishment's identity. Entry is made through a long corridor which opens into a courtyard. There in a red and white faded brick building is Mr Bacigalupo's workshop. Claes, who has visited there several times before, was warmly greeted by its owner, now in his 87th year. Via Claes' translation greetings were given to me also.

Step back in time

The workshop has been in the same location for the best part of the 20th century, and a step inside the door quickly verifies this. Various signs and notices posted 40 to 50 years ago are still in their original places! Against one wall are multiple shelves full of Hupfeld piano rolls, probably put their to await a prospective purchaser in 1925 who never arrived. On another shelf are tracker scales of organs laid out on tightly rolled brown sheets of paper. On still another shelf are pipes and parts.

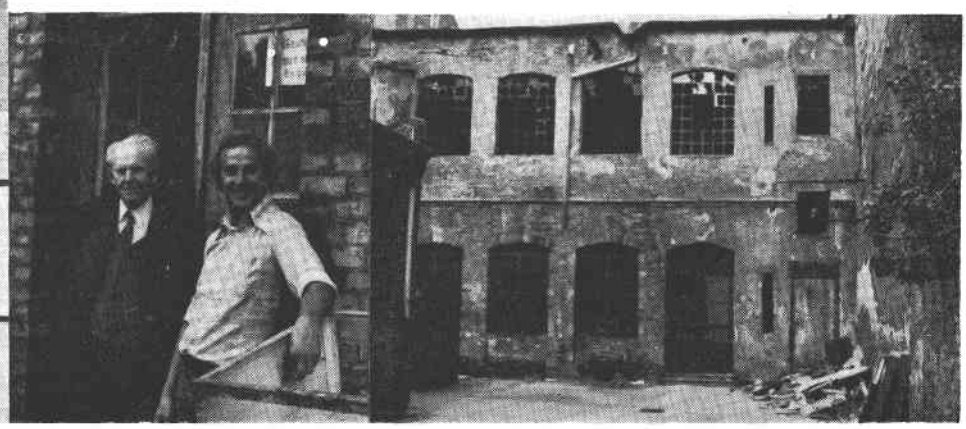
While Mr Bacigalupo manufactures hand-cranked barrel organs today on special order, his main business consists of repairs of older instruments. Scattered throughout the workshop were various units for different clients — including a very large fairground organ made by Fritz Wrede of Hannover. Since this was written Mr Bacigalupo closed the business on December 31st, 1975, and thus is no longer operating. The inventory and stock was all disposed of locally. So, I guess, I was the last collector from our part of the world to be there.

Being interested in the history of instruments I lost no opportunity to ask a thousand questions.

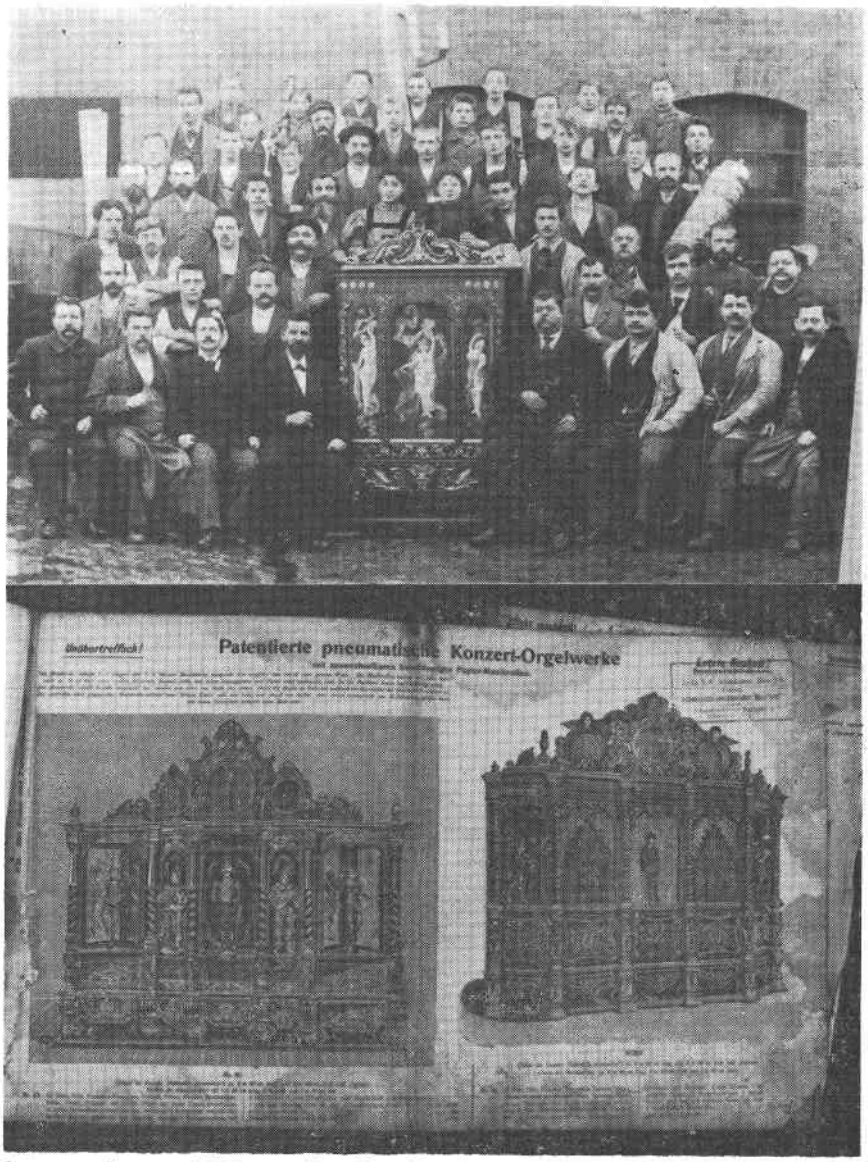
The Bacigalupo story is given in part in *The Encyclopedia of Automatic Musical Instruments*. From Claes' earlier research I told in that book of the firm of Cocchi, Bacigalupo and Graffigna which was in business around the turn of the century. This company manufactured various types of organs and orchestrions, the latter being marketed under the "Soleil" trademark.

It was with great excitement that I spied on Mr Bacigalupo's desk a previously unseen copy of a catalog dating from the turn of the century — a catalog which depicted page after page of elegant and ornate instruments. The Soleil orchestrions, although made in a wide variety of styles, were sold only in limited numbers. If any specimens survive today they are unknown to me. However, in their day they were fairly well known, and notices in *Zeitschrift für Instrumentenbau* and other trade papers speak of them in glowing terms.

Last year the Mekanisk Musik



Claes Friberg stands at the entrance to the Bacigalupo street organ factory in East Berlin's Schonhauser Allee. Centre: Giovanni Bacigalupo and Claes Friberg at the workshop door. Right: The derelict ruin of a nearby workshop formerly used by Giovanni Bacigalupo. The business of Bacigalupo closed for good soon after these pictures were taken.



Picture taken c. 1898 outside the Cocchi, Bacigalupo & Graffigna factory. Seated immediately to the left of the organ is Anton Graffigna, and to his left is Mr Bluhme, the bookkeeper. To the right of the organ is Giovanni Bacigalupo, a relative of the pesent Giovanni Bacigalupo, and to his right is first Louis Bacigalupo and then Giuseppi Bacigalupo. Below this are two pages fom a turn-of-the-century catalog showing ornate styles of organ.

Museum acquired an "Etenola" brand electric piano with xylophone — an automatically played instrument which used paper rolls. At the time we speculated that it might have been produced by Mr Bacigalupo.

We learned from Giovanni Bacigalupo some new information hitherto unknown to us and to other researchers. The "Etenola" trademark is an acronym made up from the owner, Ernst Teichert, a craftsman who produced these instruments in Berlin in the 1920s. Teichert was formerly an employee of Hupfeld in Leipzig and, later, of Frati in North Berlin. He moved to Berlin to be with the Frati firm. When Frati closed, Teichert went into business on his own. Apparently several different models of the "Etenola" instruments were produced, the one owned by the Mekanisk Musik Museum and now in a Swiss collection being the only one I have seen personally although Claes Friberg advises me that he knows of two others in collections in Germany.

The paper rolls for these were produced by Giovanni Bacigalupo, who also made rolls for other types of automatic musical instruments. Mr Bacigalupo related that Mr Teichert's credit was less than ideal, and he was never able to collect any of his bills for the rolls in cash. Ultimately each bill was settled in its turn by trading to Mr Bacigalupo some of Teichert's pianos, which Bacigalupo, being in the business in an active way, in turn sold. Giovanni Bacigalupo related that Teichert made an "Etenola" model with a real violin in it, but no other details were forthcoming. As MBSGB readers undoubtedly know, there were two models of automatic violins which were commercially successful: the remarkable Hupfeld Phonoliszt-Violina made in Leipzig and the Mills Violano-Virtuoso made in the United States. In addition there were many other types of limited production and experimental violin players, those made by Dienst, Popper and Philipps being but three of many examples.

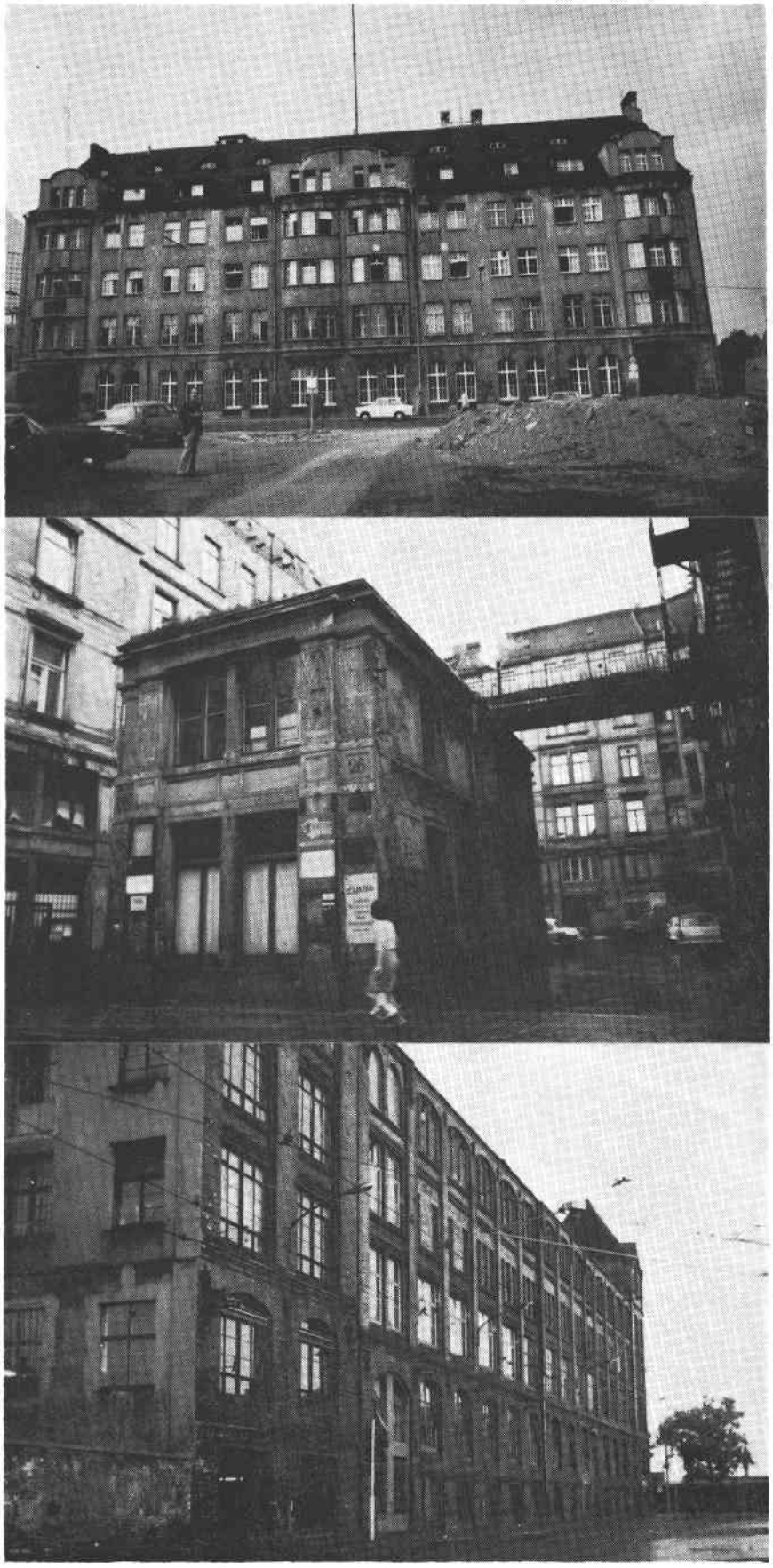
Not far from the present Giovanni Bacigalupo workshop are two other important sites, the large and impressive brick building occupied by Cocchi, Bacigalupo and Graffigna around the turn of the 20th century and a smaller workshop annex occupied by Louis Bacigalupo a few decades ago.

Leipzig today

Next on our itinerary was the important city of Leipzig — once the center of the automatic musical industry of the world. Following a nice evening's rest we embarked on a day-long search for as many different old factories as possible. First was a tall and impressive building at Querstrasse 15/17, once used as a showroom by the Original Musikwerke, Paul Lochmann proprietor, around 1910. No sign of the Lochmann occupation survives today.

Next on Sedanstrasse at number 17 came the site of the Julius Heinrich Zimmermann enterprise which manufactured Adler and Fortuna disc music boxes during the 1890s and early 1900s. This is actually a courtyard flanked by three large factory buildings, with a two-storey office in the center. As the occupying photograph shows it must not look much different today than it did back in 1900.

Of prime interest were the buildings occupied by Ludwig Hupfeld. The first we visited was at number 4 Apelstrasse and was used by Hupfeld from 1899 until the new factory at Bohlitz-Ehrenberg (which cost 2m gold marks) was ready in 1911. This factory is in excellent preservation today and, like a number of other factories in East Germany, it does not seem to have changed much during the past 60 or 70 years. No trace of the former Hupfeld ownership is visible, the building long



Top: the tall and impressive building once used as showrooms by the Original Musikwerke of Paul Lochmann. The factory was in Zeulenroda. Centre: the two-storey office in the center of the courtyard formed by the three large factory buildings which once housed J H Zimmermann's Adler and Fortuna plant. Below: between 1899 and 1911, Hupfeld occupied this building on the Apelstrasse in Leipzig before moving into the impressive new building (insert, right).

since having been converted to other uses.

"I see it!" Those were my words as we neared Bohlitz-Ehrenberg. There in the distance several miles away was the impressive tower which I immediately recognized from old Hupfeld photographs. A few minutes later we were parked near the gigantic Hupfeld factory. The huge edifice

is presently used to manufacture pianos and other instruments under the Hupfeld name. Alas, no *automatic* instruments have been made since the 1930s. However, production is very active on regular pianos of various types which are shipped to all parts of the world. The "Hupfeld" name, once on the water tower, has been replaced by the word "piano".

It is interesting to note that the door to this factory resembles somewhat a Hupfeld animatic clavitist of the 1910 - 1920 era. In front of the door in stone mosiac is the inscription: L. H. 1911.

Kalliope and Popper

The next stop was the Kalliope factory at Bitterfelderstrasse number 1. This differs somewhat from the old line engraving we had with us showing it round the turn of the 20th century, but it was nevertheless recognizable. The building has been given a new exterior, but certain of the window patterns remain the same. From this structure around the turn of the century emanated some of the most beautiful (from a tonal viewpoint) disc-type music boxes ever made—instruments which are favorites with collectors today.

Next on the tour came a visit to the Popper factory at 33/35 Reichsstrasse. Unfortunately only

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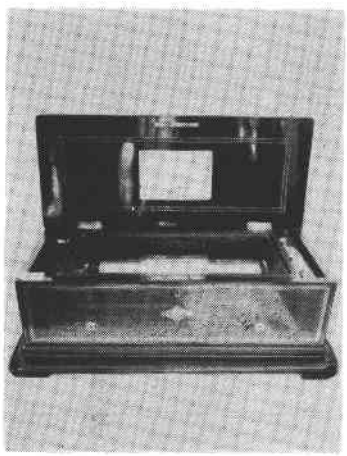

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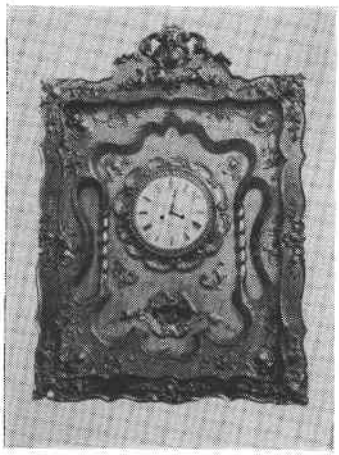

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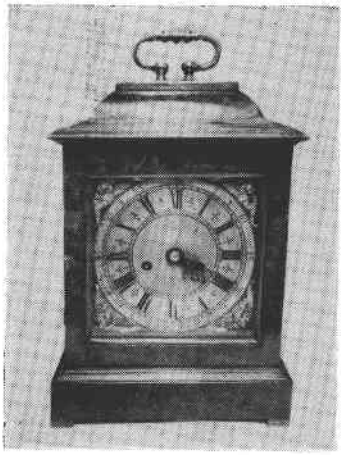


a small part of the factory remains today—two or three buildings from what was once a large complex several times its size.

Later in the day we checked the Leipzig telephone directory for people bearing such surnames as Lochmann, Popper, Hupfeld, et al. We were rewarded by finding a listing for Hanns Popper (spelled with two "n's"). A visit with this gentleman proved to be very interesting. Hanns Popper, a printer by profession, is the only surviving child of Hugo Popper. He regaled Claes and myself with interesting tales of his father. His dad passed away in 1910 from "too much of the good life", he said!

Polyphon agency

Hanns Popper related that his father had first become involved in automatic musical instruments in a big way when he secured the agency for Polyphon. Around 1894 - 1895 he became Polyphon's main agent. On one trip he went to Constantinople and rented an entire floor of a hotel. In each room were placed samples of different Polyphon instruments. Then advertisements were placed in the newspapers and circulars were sent out to various retailers. A showing was held, and wholesale orders were taken. One such foray netted over one million dollars in orders to Polyphon — such an immense order, in fact, that the Polyphon factory took a long time to fill it! By 1900 Popper was Polyphon's largest outlet.

A document in Hanns Popper's possession showed that the Polyphon Musikwerk, founded in 1890, had 800 workers in the year 1899 and produced 40,000 music boxes each year.

As related in *The Encyclopedia of Automatic Musical Instruments,* Hugo Popper was a main factor in the introduction of the Welte Mignon reproducing system. Hanns Popper revealed that Welte owned one-third interest, Karl Bockisch (who worked with Welte) owned one-third interest, and Hugo Popper owned one-third interest. This arrangement lasted until 1906 or 1907, when Popper had a sharp disagreement with Welte. It appears that the Welte Mignon was being marketed at a price of two to three times higher than the production costs indicated it should be. The Welte firm had a monopoly on the reproducing piano market at the time and took the best advantage of it. Hugo Popper thought that a larger volume of sales — a much larger volume, in fact—could be obtained by sharply lowering the price. A great disagreement between the different parties occurred, and in 1906 or 1907 Popper sold his interest to Bockisch and Welte. Popper subsequently produced his own reproducing piano, the "Stella", which incorporated some features of the Welte Mignon but was essentially quite different.

Top: the factory at Bitterfelderstrasse number 1 where the Kalliope disc musical box was produced at the turn of the century. Below this is all that remains of the large factory complex of Hugo Popper — two or three small buildings.

Q David Bowers continues this illustrated story of his East German travels on page 263 with the story of Welte recording and ends at the fine mansion once owned by Richter.

Wanted: Design for Society Badge

THE lapel badge of the Musical Box Society of Great Britain has long been out of stock.

To mark the fifteenth year of our existence, it is proposed to produce a brand new badge. Although our old design remains as part of the title block of *The Music Box* on the Editorial page, your Committee feels that it is time we had a completely new design.

Accordingly, members are invited to submit their suggestions. As a guide, you should remember that the design must be capable of being produced as a small badge — this means a simple, non-fussy, clear form.

Sketch your design and send it to the editor. The winning entry will earn its designer one year's free membership.

CODE OF ETHICS

RECENTLY Keith Harding addressed the Annual General Meeting of the British Horological Institute in London on the subject of a code of ethics for those engaged in the restoration of antique clocks and musical boxes. Because what he says can be read across directly to apply in the restoration of musicwork of all types and as he sets out succinctly the many points which other restorers are only hazily aware of, here is his paper in toto. Not only do his words relate to the professional restorer: the many who aspire to tackle repair work at home should be aware of their responsibility

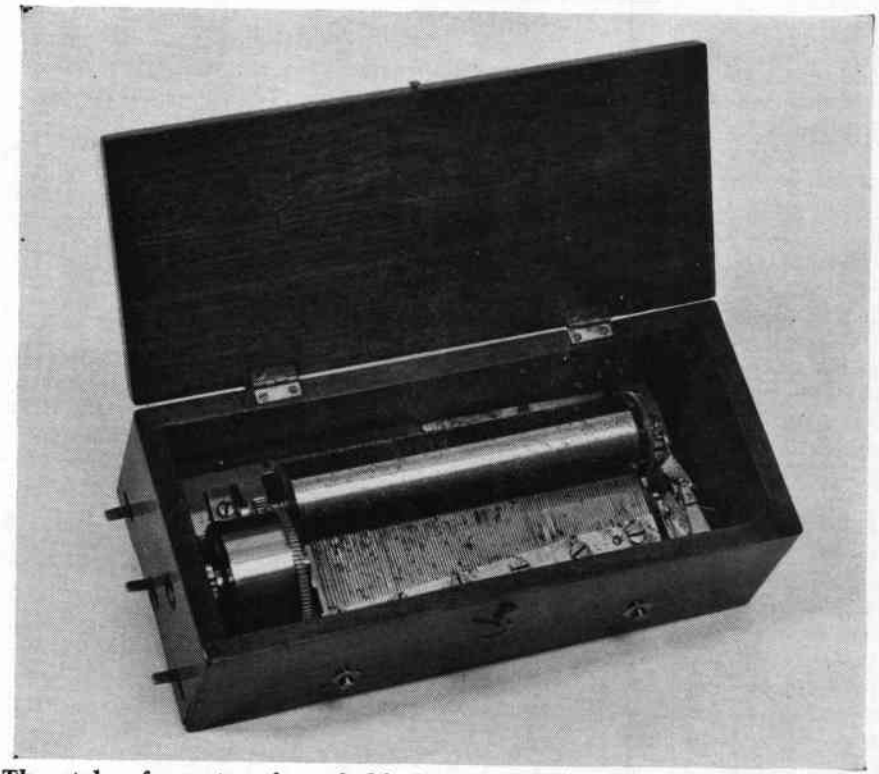
THE last few years have seen a growing public interest in clocks and musical boxes, with a corresponding increase in their value. As a result, the highest standards of restoration are not just desirable but economically possible. This presents the craftsman with a great opportunity, but also a grave responsibility. In the art and science of horology, as in any other art form, high prices encourage the forger, and the borderline between forgery and legitimate restoration is often hard to determine when confronted with a particular restoration problem. The resolution of such a problem is likely to be complicated by the fact that clocks and musical boxes are functional art, and one of the objectives of the craftsman restorer must be to put the item into good working condition. What kind of working condition should be aimed at? The item must work if the owner is to be satisfied, but this may not be consistent with preserving for posterity the workmanship, design and intention of the original maker.

If a part is broken or badly worn, it may have to be replaced, and this may produce serious problems of authentication to future students of horological or musical box history, who may not be able to tell the original parts from the new, unless they are marked in some way. It may be that the piece has been legitimately altered in the past, as in the case of pendulum conversion, where the original verge escapement has been replaced by an anchor, in which case it may be permissible to alter it back. It is certainly desirable to replace missing parts, including the complete striking trains or musical work removed by previous repairers. It is certainly not desirable, or honest, to alter the character of a piece in order to increase its market value, and this includes substituting a brass dial for a painted one, or altering the maker's signature to a more commercial one, both of which are sometimes asked for but must be steadfastly refused. This is a growing problem, with so many dealers, both professional and amateur, whose interests are primarily commercial, and with the demand for rare items so greatly exceeding the supply. It is a problem that must be faced up to if horology is to remain an honourable pursuit.

No honest restorer would ever deliberately set out to deceive, but let him be quite sure that he is not in all innocence used by somebody else who does. He may regard as his standard of perfection a restoration of which it can be said—"no one will ever know it has been done". This class of work is not usually intended to deceive anyone. The client is delighted that such wonderful work is possible. The parts *were* there before, they *were* made in that way, they *did* look like that. This is an understandable view but a dangerous one. It can be taken a stage further — the dial *would* have looked like that, the signature *would* have been on it in this place . . . !

Provided that the new parts could be distinguished from the old it would not matter, because future horologists would be in no doubt as to what work had been done. It is sometimes said that of course modern brass is different from old brass and the difference can always be detected, but what of the man who deliberately reuses brass from an old scrap clock, or who casts his own, in order to please the client? He is not deceiving anybody, because he has told the client; in fact he is rightly proud of his skill and probably boasts of it to his friends. But what happens to the clock then? Perhaps the client is an honest

Freres Nicole musical box



The style of construction of this box with the three protruding control levers suggests that it was made prior to 1835 when there was a gradual shift to the end-flap style as shown on page 96. This box measures $8\frac{7}{16}$in × $2\frac{7}{8}$in × $3\frac{3}{8}$in and has a 5in cylinder. Stamped in small characters at the top left of the bedplate is FRERES NICOLE and the comb is marked F NICOLE and has visible dowels. The inner motor bridge is of the short, single-screw type. The number on this 3-air box is 7998.

man and tells everybody that his clock is not in fact original, but the temptation is great and collectors are only human. Sooner or later, perhaps via the saleroom, this little bit of history will be lost. An honest bit of restoration by a master craftsman will have become a sham.

In the next few years the craft of the restorer is going to get into very deep water if steps are not taken now to prevent this. It could run the risk of totally losing the respect of serious collectors, historians and museum authorities. This code of practice has been drawn up to guide the restorer through the thorny jungle of decision making. It will protect him from the unreasonable demands sometimes made by clients; it will help him to think very carefully about the historical significance of what he is doing, and over the years it will isolate and control those few restorers who carry out work which should never be done.

Such a code can not and should not be enforced. Craftsmen are far too independent to be dictated to, and this is a good thing. Besides, every restoration case is different, and it would not be possible or desirable to lay down rules for treatment. It is possible, however, to formulate a few basic principles, and if the work is done properly, the result is a code of such immense benefit that it should be universally welcomed.

These principles fall naturally into three classifications:

1. duty to the object;
2. duty to the client;
3. duty to the profession.

1. Duty to the object

The restorer's first concern must be his duty to the object. It was probably made long before he was born and should still be around long after he and his client are both dead.

The intentions and methods of the original maker must be respected. The restorer must be humble before the object. This means that the restorer's task is in many ways more difficult than that of the man who designs and makes new objects. He must sublimate his own personality before the work of previous generations. His knowledge and skill must be such that when he repairs a piece he must be right first time. Unlike his colleague who is making new objects, he cannot throw away a part and start again. However, sometimes there may be a design fault, or a badly made part which has simply not withstood the test of time. Perhaps this has caused problems before, and many hands have tried to correct the fault without success. Then, the restorer must remember that an object in private hands which does not work is in danger of being neglected or thrown out; it may be his duty to try and correct the design fault.

In general, a good restorer should not try and improve on the finish of the original. This may be difficult in the face of the client. To the client who is not a practical horologist a high finish alone may lead him to remark how beautifully an object has been restored, when in fact what has been done may be no more worthwhile than putting a coat of tar on a rotten fence. Here it might be suggested that nothing has done more harm to horological objects than overuse of the buffing machine.

Even when properly carried out, cleaning can be destructive. If carried out at an early age it can remove the tell-tale marks which are the evidence for the position and shape of missing parts, such as cock and bridge feet. Once cleaned, the evidence is gone forever, and the replacement of these parts becomes that much harder

and more conjectural. Also, laying-out marks, and inscribed signatures and dates, are all part of the history of the object and should never be removed.

Horological restorers face a basic problem not faced by restorers in other fields. Their objects have to work. When a part, through use, is worn out, it is often necessary to make it again. The principle of reversibility followed by museum restorers simply does not apply. It can only be said that no part should be replaced unless absolutely necessary, and then the replacement should be an exact copy of the original (which should be preserved) and should be marked to show when it was replaced and by whom.

When the late Commander Gould supervised the restoration of the Harrison clocks he was careful to record all the missing parts which were replaced so that future scientists should know what had been done. When John Smith & Sons of Derby restored the Salisbury Cathedral clock all the parts they made anew were painted green so that they could be seen at once. If these well-known and fully published objects require this treatment, how much more does an unknown, unpublished object need to be given the same treatment.

The horological restorer has to reconcile three different aims.

(a) To pass on to posterity an object in going condition which yet shows traces of its history.
(b) To return the object to the condition it was in when it left the maker's workshop.
(c) To put the object into the very best condition possible, including correcting any sign of second-rate or lazy workmanship on the part of the original maker or his workmen.

In doing so he must be very careful not to upgrade the object for purely financial reasons. It is possible that "verge conversions" are sometimes carried out on clocks which were not originally made with verge escapements.

Each restorer should employ a single high standard of workmanship. This should be without any regard for the age, rarity or value of the object or the wealth or eminence of the client or the remuneration the restorer expects for his labour. Nothing gives the restorer a bad name faster than one job badly executed at a cheap rate. With the enormous rise in the value of horological items, there can be no excuse for anyone doing other than top quality work. There is a heavy demand for good restoration, by people who are prepared to pay good prices for good work, and any good restorer nowadays is likely to have a long waiting list.

2. Duty to the client

Relations with the client should always be based on open dealing. Trust is only generated if the client feels that he is being taken into the restorer's confidence. If this principle is followed at all times, many of the pitfalls will be avoided. Problems such as delay in finishing the work, increase in the cost above the estimate, changes in the method of restoration, will all be reduced if the restorer warns the client of these possibilities at the outset.

The client should be left in no doubt that in most cases the estimated cost is not a firm statement of the final cost. However, if extra work is found to be necessary, it is desirable that he should be consulted or kept informed. If possible, the preliminary examination should be carried out in the presence of the client; there is nothing like hearing an expert thinking aloud about what has to be done to generate confidence; the client feels that he is being drawn into the restoration process.

The client should be informed of the expected waiting time, and the restorer should guard against allowing anybody to jump the queue unless there is a very good reason; for instance, the object might require emergency treatment, such as the removal of active corrosion.

Since the object is more important than the client, restorers should beware of clients who try to tell them what treatment to use, who try to hurry the work in such a way that proper care cannot be given to it, and who waste the restorer's time by constantly pestering him for progress reports.

It is the duty of the restorer to educate the client in the special nature of hand-making of parts. In an age of mass production many people have never learned how skilful, slow and expensive it is to make things one at a time by hand.

Obviously the greatest possible care must be taken of any objects entrusted to the restorer and any damage resulting from his own carelessness must be his responsibility. However, in horological restoration, the parts of the object are often under heavy stress because of the stored mechanical energy within the object. This is particularly true in the case of a large musical box, which has a much more powerful spring than a clock and a more delicate gear train. Metal fatigue, intercrystalline corrosion or an unseen old repair may so weaken a stressed part that rupture occurs without any warning at some later date. This can do very serious damage, and can under certain conditions destroy the object. The restorer cannot be held responsible if this happens, since it is impossible to forecast

Roepke instruction sheet

The unusual lever-pluking Roepke book-playing musical box made in Salford, Manchester, is to be the subject of a forthcoming article promised by John Knott who recently restored it (see Volume 6 page 282). Here is the inside lid label, a hark back to the early days of Symphonion when instructions were featured instead of the latter pictorial lithographs.

such an event. He is not legally or morally responsible to make good the loss to the customer provided it is in no way his fault, though, of course, he will lose the value of work already carried out. Fortunately, disasters of this magnitude are very rare.

It should be an unbreakable rule that no work leaves a restorer's hands until it is paid for. It is also a good plan for a part payment to be made before work starts, provided it is made quite clear that this does not commit the restorer to a fixed price. Even though the work may take a long time to complete, it may be spread over that period if there are a number of processes involved, and if no advance payment is made, the restorer will be out of pocket during that period, and effectively making the client an interest-free loan. Most reasonable people are quite happy to accept these terms if they know they are the rule rather than the exception. In the event of the work not being finished for any reason, any money paid for work not carried out must be returned to the client with his property.

All items, objects and parts of objects, must be kept carefully labelled at all times so that there is never any doubt who the object belongs to, and not the slightest chance of parts being lost. The client is entitled to a receipt for his object. All work carried out should be recorded and the records kept.

3. Duty to the profession

This can best be illustrated by referring to a similar organisation to the British Horological Institute, one which concerns itself with restorers in general, particularly in the museum world, and which is called the International Institute for the Conservation of Historic and Artistic Works (IIC for short).

When the IIC was founded in the nineteen fifties, and at about the same time as the foundation of the Antiquarian Section of the BHI, the conservation of antiquities and works of art was on the whole conducted in small cells of expertise with little communication between them. There were innumerable "trade secrets" between workshop and workshop, much jealousy between craftsman and craftsman, and even more distrust. Now the position is totally different; gone are the trade secrets, and much of the jealousy and distrust has gone with them. What brought this about? Largely it was caused by the very strict code of professional ethics which members of IIC try to follow. We say "try" because there is no pressure on them to do so. The result has been a restoration explosion, with new techniques being developed and restorers in one field helping restorers in another. Nor are all these people working in museums; many are in private practice. None have lost by the pooling of knowledge but all have gained.

There is absolutely no need for jealousy or trade secrets between restorers. In fact, they are the signs of a bad restorer since a good one has nothing to fear from competition. Secrets lead only to loss of knowledge, and both the clients and the profession are the losers. The motto of the British Antique Dealers' Association is *Ars non habet inimicum nisi ignorantiam,* which means "art has no enemy but ignorance".

It is not necessary for craftsmen restorers to claim secret knowledge or to undercut one anothers' prices in order to get work. There is a big enough demand for high quality restoration for reasonable prices to be charged and for reasonable wages to be paid.

Society Affairs

Overseas members support Cornwall meeting

THE winter regional meeting of the Musical Box Society of Great Britain was held on Friday, March 12th, through to Sunday 14th, at the West Cornwall Museum of Mechanical Music, Goldsithney, Cornwall.

Capably organised by Douglas Berryman, museum founder, the meeting began with an informal gathering at the Tregenna Castle Hotel, St Ives, after dinner. Overseas visitors included a party of 15 American members led by Hughes Ryder, Mr and Mrs Claude Marchal of the French AAIMM, and Dr Jan-Jaap Haspels from Utrecht.

In spite of torrential rain and strong winds 80 members and guests registered on the Saturday which began with a conducted tour of the museum by Douglas Berryman and Stephen Berryman.

After a buffet lunch, provided by Mrs Ruth Berryman in the close-by church hall, the afternoon programme began with a demonstration of the Aeolian Orchestrelle by our editor, Arthur Ord-Hume, in what he termed an annotated recital of selected music. He showed how the various tonal merits of the instrument could be put to best advantage.

After that there was a demonstration of reproducing pianos with the Duo-Art and Ampico grands as well as the Welte grand. Arthur Ord-Hume then chaired a discussion on the pros and cons of these systems with George Lomas, Gerald Stonehill and Frank Holland of the British Piano Museum locked in verbal combat. The final conclusion was inconclusive with all systems having both defects and advantages so that in the end preference was largely a personal matter.

On the Saturday evening 75 people sat down to dinner at the Tregenna Castle. The principle after-dinner speaker was Mr Peter Young, chairman of the Cornwall Association of Tourist Attractions, who delivered a talk on the history of tin and copper mining in Cornwall illustrated with slides of the many now beautiful ruins of Cornwall's once-thriving industry.

Sunday morning was devoted to a talk by Douglas Berryman on the barrel piano and his development of a system of copying barrel pinning electronically.

At mid-day a char-a-banc transported visitors to Liskeard, lunching en route at Bodmin, to view the Paul Corin collection, St Keyne Mill. After an all-too-short visit to this collection, members were transported to the station in time for the London train.

Our sincere thanks to Mr and Mrs Berryman for organising what must be one of the most successful of our provincial gatherings.

Summer convention attracts Americans

THE summer meeting of the Musical Box Society of Great Britain was held in London on Saturday, June 5th, and Sunday 6th, 1976, at the Kensington Close Hotel, Wrights Lane.

Once again our meeting was distinguished by the number of overseas members and guests in attendance with no fewer than 48 American members plus one Canadian, and Mr and Mrs Dekyndt from Belgium. The American party was at the start of a three-week tour through Europe visiting musical box collections and museums of mechanical music.

There were 202 registrations for the meeting which began with a talk by Roger Burville entitled "How I got involved with Fairground Organs". Mr Burville showed slides of many instruments and played tape recordings from his collection.

Following this, Frank Holland presented an illustrated talk on the British Piano Museum of which he is founder. He also gave a demonstration of the only surviving Aeolian FS8 projector, to be the subject of a forthcoming article.

After lunch was held the Annual General Meeting. The two main items on the agenda were the proposed change of the name of the society to the British Automatic Musical Instrument Society, and to approve the amendment to the Constitution to increase the number of ordinary committee members to four.

Editor Arthur Ord-Hume presented the case in favour of changing the name, suggesting that since many members of the society were interested in other forms of mechanical musical instrument, the proposed name would be more representative of our interests and activities. After a brief discussion, President Cyril de Vere Green put the matter to the vote and the motion was rejected almost unanimously in favour of retaining our existing title.

The motion to increase the committee was approved as also was the granting of Honorary Membership to member Frank Holland for his services to the interests of mechanical music.

The Secretary reported a year of satisfactory growth and the new Treasurer, Stephen Cockburn, confirmed that he had completed the transfer of matters from our retiring treasurer, Keith Harding. The Editor reported on the first year of the new-style magazine and was able to report both a satisfactory budget costing plus his ability to work within it. The retiring Archivist and the retiring Vice-President were not in attendance.

Next came the election of officers and, in the absence of other nominations, the recommendations of the committee were put forward and elected. President Cyril de Vere Green, in retiring from office after four years, welcomed

Cyril de Vere Green retires

SOCIETY founder, Dr Cyril de Vere Green has retired from the office of president which he has held for the past four years. Gathering pressure from his professional duties has forced him to take this action.

Dr de Vere Green was solely responsible for the foundation of the Musical Box Society of Great Britain and it was his enthusiasm which carried it through its founding years during which he acted as secretary. His mature experience and knowledge is not, however, lost to us, for he has agreed to serve on the Committee in non-executive capacity.

Members of the society join in expressing their sincere thanks and appreciation to him for his outstanding service to the society which was essentially his own work.

His place as president is taken by Mr Arthur W J G Ord-Hume.

the new President, Arthur Ord-Hume, who in turn expressed his appreciation of the fine work which Dr de Vere Green had done for the society since he originally founded it fifteen years ago. Full committee details are at right.

On the conclusion of the business meeting, Keith Harding presented a film in colour showing the restoration of a *Grand Format Piano Forte* musical box.

The society auction followed conducted by Christopher Proudfoot. Almost 90 lots were sold and

Continued on page 250

THE NEW COMMITTEE

President	**Mr Arthur W J G Ord-Hume**
Vice-President	**Mr Hughes Ryder**
Hon Secretary	**Mr Arthur Reginald Waylett**
Hon Treasurer	**Mr Stephen Cockburn**
Hon Editor	**Mr Arthur W J G Ord-Hume**
Hon Recording Secretary	**Mr Alan K Clark**
Hon Archivist	**Mr W Keith Harding**
Committee Members	**Dr Cyril de Vere Green; Mr Alexander Duman; Mr Brian Clegg; Mr Christopher Proudfoot**

Classified Advertisements

Members: 3p per word (bold type 5p per word). Non-members: 6p per word (bold type 10p per word).
Groups of figures or letters up to six characters count as one word.

FOR SALE

A FULLY ILLUSTRATED CATALOGUE of cylindrical music box parts is available. 40 pages of interest if you are involved in the maintenance of your musical boxes. The catalogue ranges from the endless to butterflys. We make a charge of £1·00 for the catalogue which is refunded against orders. Please forward your remittance to: CRAGG, 7 GOLDSDOWN ROAD, ENFIELD, MIDDLESEX, EN3 7QY.

IF YOU are restoring a 31 note Maxfield Player Organ and have parts missing, I may be able to help. Write R. Booty, 3 Foxborough Chase, Stock., Ingatestone, Essex, CM4 9RA.

CYLINDER REPINNING SERVICE. A. J. Colley, Belle Vue Antiques, Kent Road, Congresbury, Nr. Bristol. Tel.: Yatton 832220.

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WANTED. MUSICAL SNUFF BOX. Ripley. 79 Meads Street, Eastbourne. Phone 21177.

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Letters to the Editor

Tug Wilson writes from Finchampstead:

SPREAD over the British Isles there are many items of interest to the musical box member. I would like to draw a map showing where these items can be seen for publication in *The Music Box*. Could I ask all our members to send to me particulars of anything of interest. I would require *location, whether open to public or not, time/dates* and rough idea of items to be seen.

For example:
Rising Moon Public House,
Little Twitching,
Much Binding,
Sussex.
Open during licensing hours.
Admission Free.
One interesting Musical Beer Stein.
Circa 1967.

Please send details of *anything*, large or small.

The only other point I would like to add is do not assume I know about the "World Famous Musical Gardens" in glorious Clapham—I don't!

Just sit down and scribble details on any old piece of paper and let me have it:
Tug Wilson,
Wick Hill House,
Finchampstead,
Berkshire, RG11 3SW.
Eversley 732248.

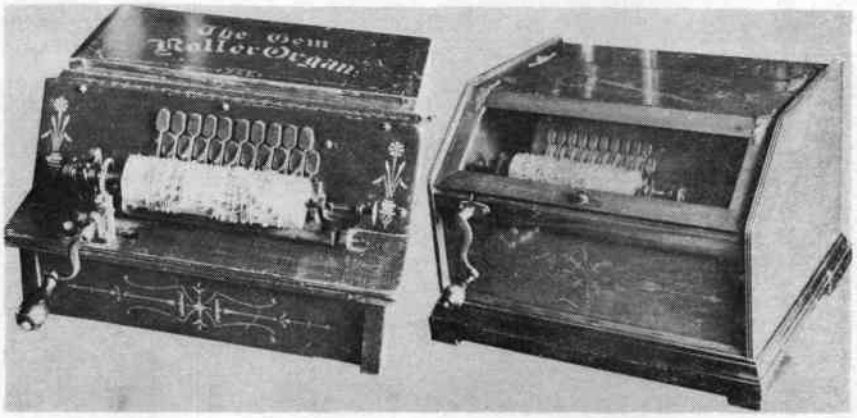
Jim Hall writes from Kendal:

ROGER BOOTY in his letter to you pointed out the mistake of the photograph on page 149 of the Gem Organette. The article also states that the early model operated on pressure via open bellowswork, which is misleading for it operates on suction via exhausters.

Enclosed are two negatives (by courtesy of Jack Tempest). First is the Gem Roller organ, which I overhauled, recovering the bellows and exhausters, and found the date of Dec 30 1895 on one of the exhausters, and the date of Nov 29 1895 on the reed block. The other is of a Cabinet Roller Organ.

Both organs operate on 20 reeds, but the early model—The Gem, has higher pitched reeds than the later model, not just one note, but six notes sharper. The scale of both organs is set out below.

The lowest note in each case is top left on the reed block. The rollers (cobs) are interchangeable on both machines.



Gem Roller Organ

E		A		B		C#		D			D#		E		F#			G#		A		(no C F G)
	A#		B		C#			D		D#			E	F#			G#			A	B	

Cabinet Roller Organ

A#		D#		F		G			G#		A		A#		C		D			D#		(no C# F# B)
	E		F		G		G#			A		A#		C		D		D#			F	

The lowest note in each case is top left on the reed block.
The rollers (cobs) are interchangeable on both machines.

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of the members. However, by your almost unanimous vote, such a change was deemed unnecessary and, indeed, not in the interests of the society. Already for some years we have been publishing material on the related instruments—reproducing pianos, player organs, automata, fair organs, snuff boxes, singing birds, clocks with music and so on.

We therefore retain our established name and the respected tradition of fifteen years of The Music Box Society of Great Britain behind us.

As your fifth President let me assure you that nothing has altered.

There is always an understandable fear in a group such as ours that certain persons will gain too much power, become too influential and doctrinaire. The reasons are simply that the interests of one man may be seen as greater than the whole to the ultimate detriment of the whole. There is, quite rightly, no room for autocracy as a substitute for leadership. The guarantee that such a situation cannot arise is to have a strong committee and this, I venture to suggest, is what we now have.

In concluding my Presidential message, let me highlight the fact that for the first time we have a member from the United States of America on the Committee. Hughes Ryder has attended very many of our meetings and his position in the new Committee as Vice-President reflects the fact that we have around 40 per cent of our membership in the continent of America and he will be advising me and the rest of your Committee on matters concerning our interests there.

I thank you for your confidence and hope that by building on the labours and experience of those before me the Musical Box Society of Great Britain may continue to flourish.

• • •

TO BE branded as either an enthusiast or a collector means so often to be categorized as a sort of latter-day social pariah. The reasons for this are hard to define and seem to depend very largely on the immediate environment of the enthusiast. If he lives in an area of great social conservatism, painting his front door light brown could cause raised eyebrows. And if he lives in an area rich in creativity and spare-time activity, then anything goes.

I recall some years ago when I was constructing a light aircraft in the back garden of my home, the chap two doors down was a model railway buff and he would come home from his office, don a boiler-suit and engine-driver's cap and spend the evening driving round and round his garden on a real steam train. I used to think he was slightly mad and he, I feel sure, considered me in the self-same light. Meanwhile, the chap who lived in the middle and whose spare-time aspirations ascended no higher than trimming his lawn and potting his pelephoriahsthes, eyed us both with caution, thinking that we were *both* mad!

I once discussed the phenomenon of *enthusiasm* with a psychiatrist. Not, I might add, one I was consulting for his professional prowess, but one whom I met at a party lurking nervously in the corner and clutching a gin

continued from page 248

some very high prices fetched. The total was £10,010, ten per cent of which went to society funds.

The annual dinner was attended by 122 members and guests with entertainment provided afterwards by members Tug Wilson and John Gresham.

Sunday began with a talk by John Gresham on the collecting of slot machines. He showed examples from his large collection. The final talk was by John Hammond on the definition of automata in which he showed extracts from a BBC documentary film of the automaton writer in Peking and also showed the automaton clock at Messina.

So concluded a most successful summer meeting.

The winter meeting of the Society will be held in London on October 16, 1976.

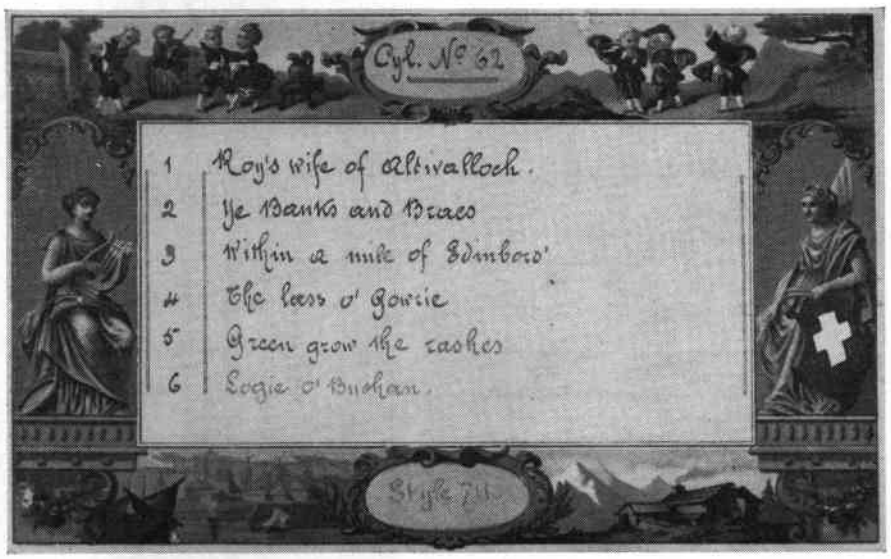
glass. He admitted that all normal people needed to have something to be enthusiastic about and from this inherent need came the collecting habit. All this sort of thing, he said with the air of a man who had never collected anything or ever experienced enthusiasm, was part of the necessary processes of living a healthy life. He flicked his slice of lemon into a nearby goldfish bowl, ground his teeth, blinked nervously and downed his drink at one go.

There, thought I, is a man who needs to see a psychiatrist. . . .

Anyway, amidst the raised eyebrows that greet you when you admit to collecting mechanical musical instruments, rest assured that there are some who are hypocrites, even if their collecting habits have not progressed beyond maintaining a drawerful of plastic swizzle sticks from Pan Am, Benidorm and the Hotel Intercontinental.

But what, they may ask, is a musical box collector? I'll tell you. He is one who works all the hours of the day, year in, year out, and eventually by his hard work and sustained enthusiasm for his hobby reaches a state of abject poverty. He is also distinguished by his unfailing ability to get round directives such as: "I'm not having another one of *them* in the house!". Is he, then, deceitful? Never! Furtive, perhaps, but never deceitful (well, hardly ever!). Above all, he's usually happy and fulfilled.

ARTHUR W J G ORD-HUME



The " unmarked " style of PVF tunesheet referred to in connection with the tunesheet shown on Page 228.

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Book Reviews

MECHANISCHE MUSIK-INSTRUMENTE UND MUSIK-AUTOMATEN. *Heinrich Weiss-Stauffacher and Rudolf Bruhin. Selbstverlag, Switzerland. 248pp, 12⅜ins (320mm) by 10¾ins (270mm), illustrated, mainly colour. About 120 Sw.Fr.*

Probably the most lavish book ever produced on the subject, this comprises the catalogue of the private collection of Heinrich Weiss-Stauffacher of Basel. This remarkable collection includes some outstanding automata and musical boxes, reproducing pianos, a twin Mills and the Hupfeld violin-players, a large and spectacular Welte Philharmonic reproducing pipe organ, a modern pipe organ built in 1970 and played from a roll box, an Aeolian pipe organ, a fine assortment of organs of both street and orchestrion types, singing birds, snuff boxes, barrel pianos and so on.

This large-sized book is superbly illustrated with many very fine colour photographs. Each instrument is described, most are dimensioned and the larger instruments are provided with tracker-bar or keyframe scales. Concluding pages are devoted to a description of the operation of the Welte reproducing system.

Unfortunately, some of the instruments are mis-titled, like the "Symphonium", the Polyphon "Kalliope", and other disc musical boxes mistakenly called Polyphons. Purists will cringe at the description of the Aeolian Orchestrelle as a "harmonium" just because it blows its reeds.

But in case these minor faults appear formidable, this remains a book to enjoy, even if you cannot read German. Pictures of such rarities as a barrel-playing concertina, a Coelophone Orchestre, very early musical automaton watches, carillon clocks and so on are there to be admired—even a diamond-shaped tune-sheet musical box described as by Fabrique Spiraux, Genf. But just looking at the pictures is to learn.

It is a pity that this book is so expensive — the more costly because of the strength of the Swiss franc *vis-a-vis* the British pound. If, though, you are one to buy the best books at any price, then this one is a luxury worth going without smoking to afford. A O-H

Printed for The Musical Box Society of Great Britain by Thanet Printing Works, Ramsgate, Kent.

Keith Harding

KEITH HARDING and CLIFF BURNETT

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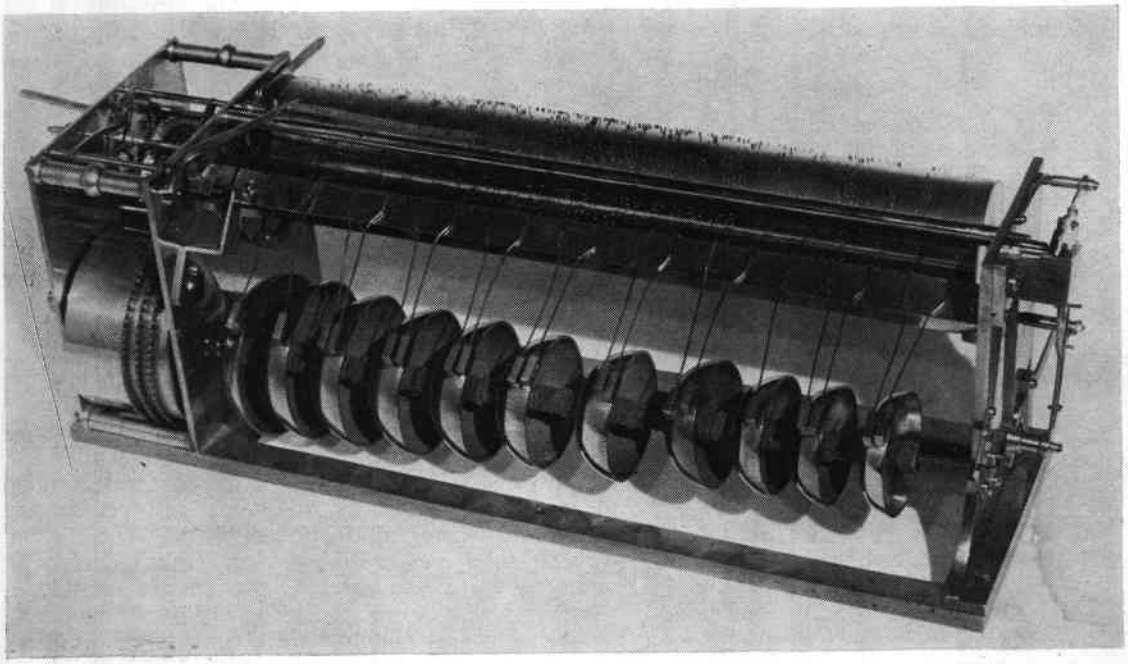

Rare carillon from base of French musical clock, mainspring dated 1814. Restoration included repinning, replacing two damaged bells, retuning, and making good extensive damage caused by previous "repairer".

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