The Music Box

an international magazine of mechanical music

THE JOURNAL OF THE MUSICAL BOX SOCIETY OF GREAT BRITAIN

Volume 8 Number 1 Spring 1977

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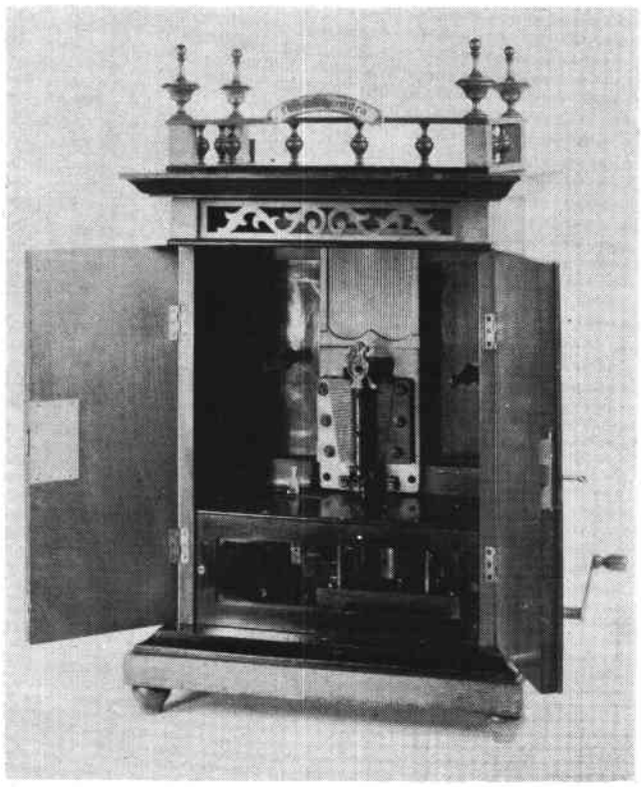
SALES OF MECHANICAL MUSIC



This Alexandra 9 inch disc musical box sold on December 22nd 1976 for £620.

Provisional Sale Dates for 1977 :
March 16, May 18, July 20, September 28, December 7.

Entries welcome for the above sales (except March 16); closing dates two months ahead of sale dates.

If you are thinking of selling a **Musical Box, Barrel Organ, Phonograph, Gramophone, Player Piano, early Radio** or even an old **Typewriter,** please contact Christopher Proudfoot at the address given above.

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The Editor writes. . .

IF ONE of the aims of the Musical Box Society of Great Britain is to spread knowledge on musical boxes, then, by corollary, one of its objects is also to annihilate ignorance.

As the value of musical boxes has increased over the years and five pounds will no longer buy even a disc let alone a complete Polyphon (as it would have done twenty years back), people have become much more aware of these instruments. In consequence, one might forgive them for expecting to be kept much more aware of what was happening by the media.

Sadly, not a bit of it! Although newspapers now delight in headlines such as "Victorian musical box makes £2,000", they do not point out that it was an interchangeable overture box by a brilliant maker, well-arranged, in perfect condition and with half a dozen cylinders. So, of course, the ubiquitous Mrs Jones drags out her toothless Thorens and claims it is worth a fortune.

So we can forgive the lay press. But there is now little excuse for such ignorance continuing in the auction house. One still finds the practice of poor, imprecise descriptions entering the catalogues of the village salerooms where wardrobes rub knobs with mangles, Nicoles and over-stuffed armchairs.

Even less, though, are we able to excuse the appallingly misleading material put out in some so-called guide books to popular antiques and their values.

One that captured my eye the other day is a thing called The Lyle Official Antiques Review, 1976, published by an obscure house in Scotland. Aimed, presumably, at a mass readership and no doubt eagerly snapped up by collector and saleroom valuer alike, the title suggests that it provides some sort of reliable information. Not a bit of it! Look under "musical boxes" and you'll find several pages comprising rough thumbnail sketches of musical boxes together with brief description and the price realised at some undefined auction.

I have no quibble about the auction prices, and I have no doubt that the compiler has taken his description from that printed in the village auction catalogue. But to describe an object as "a very rare organette" or a Symphonion as by the name of the agent who sold it is to mislead the non-specialist to the extreme.

Descriptions such as "Table Polyphon by Adler", "Stella table Polyphone", "German Stella" and "Mermond Freres" imply supreme editorial subject ignorance.

Probably this same criticism can be applied to other sections in the book, I am unable to say. Whether or not this is fact, it remains that once again we have a so-called authoratitive work for the public containing information which, at the very least, can be classified as unhelpful.

Many publishers who seek to cash in on the now-lucrative antiques business are prevented by the sheer size and complexity of the subject from checking their references and avoiding the pitfall of promulgating somebody else's inadequacies.

Nobody is without guilt in this matter, but hopefully we have learned. Regrettably I feel it is a forelorn hope that this is the last such book of this type which will be sold to a susceptible public.

It does not alter the fact that, as regards the musical box section, it is utter rubbish.

ARTHUR W J G ORD-HUME

Cover picture: **Handsome *Flute Voix Celestes* box in burr-walnut case with brass handles. Cylinder 33cm, 12-airs, with 16-note reed organ. Co-axial springs. Sold for £420 at Sotheby's Belgravia December 2, 1975.**

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J P NYSTRÖM'S REFORM-ORGEL

by Bill Lindwall & Sven Forsell

ALTHOUGH Europe is renowned for its important position in the field of automatic musical instruments, one does not think of Scandinavia as playing any part in the history of mechanical music. Small though its part was, it led to instruments which were sufficiently unusual and mechanically interesting to warrant much greater attention than hitherto has been the case. The first we look at was created at the time Norway was still under Swedish rule. It was a year of political turmoil for Sweden's King Oscar II. Separation was beginning. And in England, Queen Victoria was spending more and more time at her Isle of Wight retreat, Osborne House. In America it was the year of the waterspout which ravaged Washington. General William Sherman had just died. It was also the year Napoleon Bonaparte died. In Karlstad, 270 kilometres west of Stockholm on the northern shores of Lake Vanern, Johan Petter Nyström patented his Reform-Organ. It was 1891 . . .

OF ALL the instruments of mechanical music which have been invented, only a few have originated from Sweden. Although Swedish inventors were a bit thin on the ground, this does not mean that Sweden has no automatic instruments. On the contrary, the interest in music being universal, there are quite a few different mechanical instruments in our country which have been brought here by Swedes after travelling abroad. And of course there were the Swedish agents for imported instruments—firms such as Billbergs Piano-Fabrik Aktiebolag, CH, of Göteborg, which dealt in player pianos, Killbergs Bokhandel, Akt.-Gesellsch of Helsingborg, Johanson's Musikinstrument-Importen in Malmö and, probably most important of all, Schröder in Stockholm which was established in 1894 to import and sell all forms of mechanical instrument.

Unusual instruments

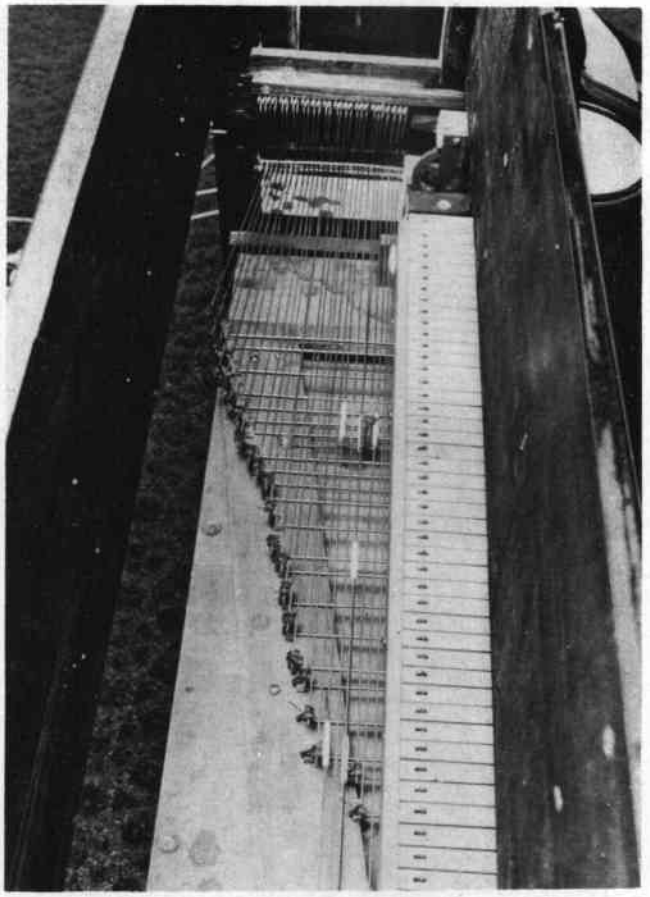
So you will see that Sweden was not unaware of what the rest of the mechanical music world was doing. Having said that, it must be reasserted that Sweden did not have an impressive musical box industry to rival the Germans or the Swiss. But it did devise just a few rather interesting and unusual instruments. One was Nyström's Reform-Organ or, to give it its proper Swedish name, Reform-Orgel.

Harmonium relative

The Reform was a reed organ which worked on the suction principle which means that it was directly related to the harmonium rather than to the so-called American organ which it outwardly resembled very much.

It was constructed at the J P Nyström Organ Factory in Karlstad and it was the result of many years of experimenting. Nyström received the patent for his organ from the Swedish patent office on

Styled after the American organ with falsework above the keyboard level, the Reform-Organ is a well-proportioned instrument. Candlesticks are not part of the organ.



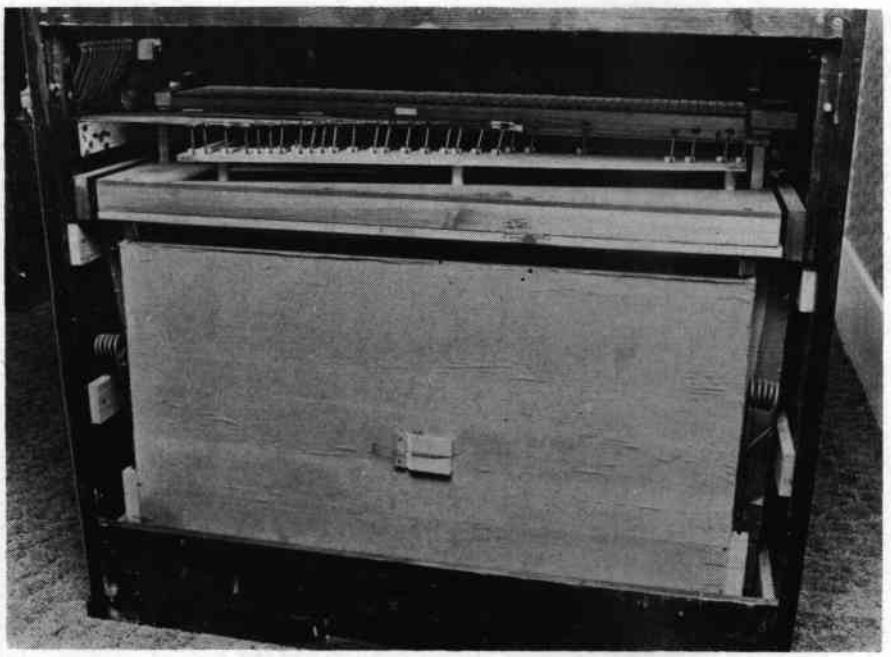
The view, left, shows the disc in position for mechanical playing. Unlike the Ariston mechanism, cranking the handle on the front of the organ serves only to rotate the music-disc. Suction must be created by pedalling at the same time to exhaust air from the reservoir seen in the view below. Above: looking down inside the organ with the complete top removed. The wire linkages from the keyframe (top of picture) to the 28 key actions of the mechanical player can be seen and their action evaluated from the patent drawing on page 6 which shows two alternative methods of admitting atmospheric pressure to the reeds so allowing them to be sounded.

February 19th, 1891. The patent, which bears the number 3199, describes in detail the troublesome path of the inventor on his endeavours to produce the self-playing instrument.

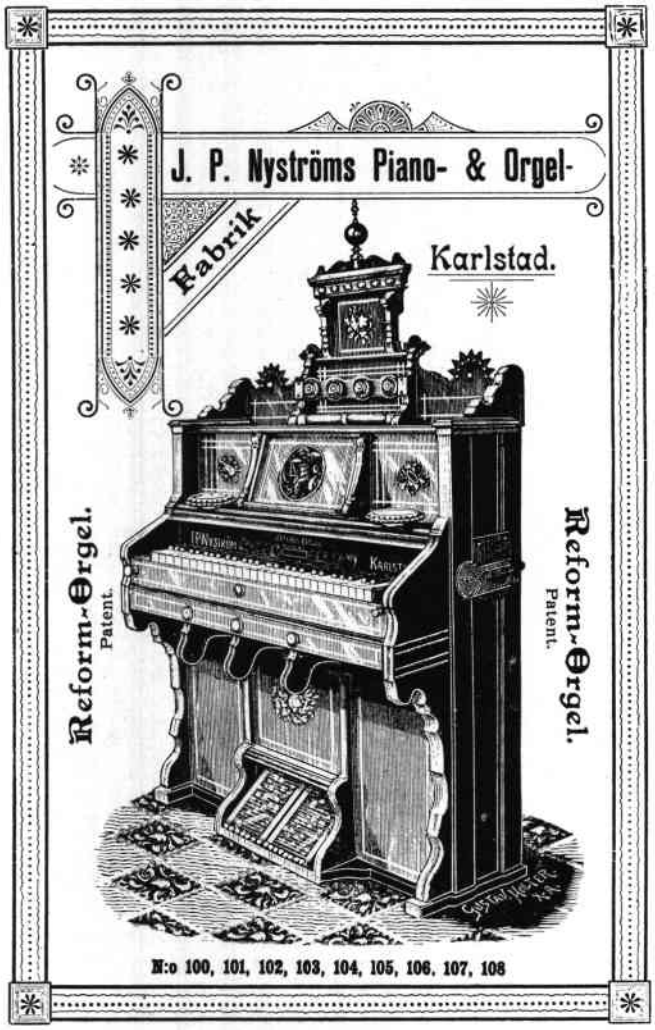
Reason for design

Nyström's success was thus well earned. His factory produced the instrument and it sold for 180 Swedish Crowns which, in today's currency is about £24—a little over $40.

Why a self-playing harmonium-type organ? Nyström sold many ordinary organs all of which he made in his factory but he came to realise that a mechanical organ



The large-area suction reservoir is seen here with the springs at each side and the relief pallet at the centre. Mechanical action parts are clearly visible.



would be a good seller among all those who lacked musical education but still had the urge to play an instrument. Unlike the German hand organ, though, by allowing those musically talented facilities to play it as well, Nyström considered that he could have the best of both worlds. In this respect his line of thought was little different from that of the English barrel organ builders who built barrel-and-finger organs. Nyström's organ, however, would not have cumbersome barrels, but would use a perforated card disc — an eminently suitable programme source, he grudgingly had to agree, even if it was German and normally associated with the Ariston. Any similarity between his organ and the Ariston, though, was hotly denied and so proclaimed prominently in his sales literature.

Schools market

An important outlet in those days was the schools. In Sweden all the pupils had to sing a hymn at the beginning and end of the schoolday. Not all teachers could play and therefore the availability of a mechanical organ was very useful, even if slightly humiliating for the teacher who could not play to have to use.

In the sales literature which Nyström published, he points out that many persons had asked for a product just like this organ which they could have in their homes in order to "raise the devotion as well as the comfort". Thus the Reform-Organ came to find a very wide market amongst not just schools but private homes as well. "Not", urged Nyström, "to be confused with barrel-organs, Aristons or similar . . .".

Today, the Reform-Organ is a rarity even in Sweden and my advice to anybody who should ever find a Nyström for sale is—buy it!

Operation

How, then, does it work and what does it do?

The keyboard has 61 notes—the standard compass of most of the larger reed organs — extending chromatically from the bass F. There is, as in the harmonium, just one rank of reeds.

From this gamut of 61 notes, 28 are used for the mechanical player action. From the bass octave upwards, these are as follows:

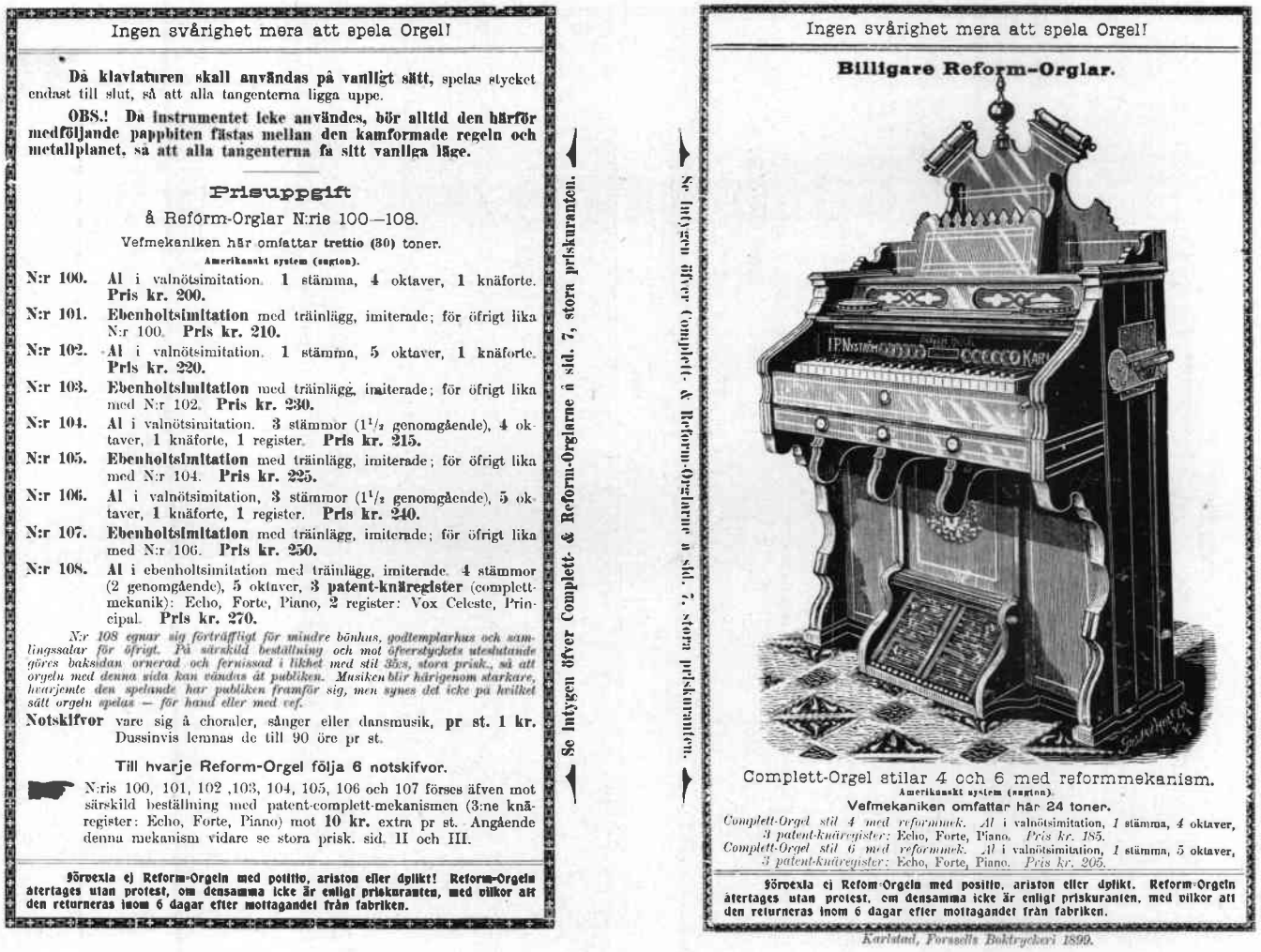
G#, B.
C#, D#.
C, F, G, G#, B.
C*, C#, D#, F, G, G#, B.
C, C#, D, D#, E, F, F#, G, G#, B.
C, C#.
*middle C (i.e., 8ft).

Each of these 28 selected notes is connected via a horizontal connecting tracker to a keyframe mounted on the right-hand side of the organ case. This keyframe is very similar to that of the Ariston and its operation is virtually identical.

Cardboard disc

The crank-handle on the front of the case turns a shaft which, by means of worm gearing, rotates the drive mechanism for the cardboard disc. The disc is held in place by a swinging pressure bar Ariston fashion and is 13¾ins (36·5 cm) in diameter. By comparison, the Ariston organette plays 24 notes and uses a disc 13ins (33 cm) in diameter.

The bellows or wind department owes much more to the Aeolian Grand than to the harmonium, for



Ingen svårighet mera att spela Orgel!

Då klaviaturen skall användas på vanligt sätt, spelas stycket endast till slut, så att alla tangenterna ligga uppe.

OBS.! Då instrumentet icke användes, bör alltid den härför medföljande pappbiten fästas mellan den kamformade regeln och metallplanet, så att alla tangenterna få sitt vanliga läge.

Prisuppgift

å Reform-Orglar N:ris 100—108.

Vefmekaniken här omfattar **trettio (30)** toner.

Amerikanskt system (sugton).

N:r 100. Al i valnötsimitation. 1 stämma, 4 oktaver, 1 knäforte. **Pris kr. 200.**

N:r 101. **Ebenholtsimitation** med träinlägg, imiterade; för öfrigt lika N:r 100. **Pris kr. 210.**

N:r 102. Al i valnötsimitation. 1 stämma, 5 oktaver, 1 knäforte. **Pris kr. 220.**

N:r 103. **Ebenholtsimitation** med träinlägg, imiterade; för öfrigt lika med N:r 102. **Pris kr. 230.**

N:r 104. Al i valnötsimitation. 3 stämmor (1½ genomgående), 4 oktaver, 1 knäforte, 1 register. **Pris kr. 215.**

N:r 105. **Ebenholtsimitation** med träinlägg, imiterade; för öfrigt lika med N:r 104. **Pris kr. 225.**

N:r 106. Al i valnötsimitation, 3 stämmor (1½ genomgående), 5 oktaver, 1 knäforte, 1 register. **Pris kr. 240.**

N:r 107. **Ebenholtsimitation** med träinlägg, imiterade; för öfrigt lika med N:r 106. **Pris kr. 250.**

N:r 108. Al i ebenholtsimitation med träinlägg, imiterade. 4 stämmor (2 genomgående), 5 oktaver, 3 **patent-knäregister** (complett-mekanik): Echo, Forte, Piano, 2 register: Vox Celeste, Principal. **Pris kr. 270.**

N:r 108 egnar sig förträffligt för mindre bönhus, godtemplarhus och samlingssalar för öfrigt. På särskild beställning och mot öfverstyckets uteslutande göres baksidan ornerad och fernissad i likhet med stil 3:ns, stora prisk., så att orgeln med denna sida kan vändas åt publiken. Musiken blir härigenom starkare, hvarjemte den spelande har publiken framför sig, men synes det icke på hvilket sätt orgeln spelas — för hand eller med vef.

Notskifvor vare sig å choraler, sånger eller dansmusik, **pr st. 1 kr.** Dussinvis lemnas de till 90 öre pr st.

Till hvarje Reform-Orgel följa 6 notskifvor.

N:ris 100, 101, 102 ,103, 104, 105, 106 och 107 förses äfven mot särskild beställning med patent-complett-mekanismen (3:ne knäregister: Echo, Forte, Piano) mot **10 kr.** extra pr st. Angående denna mekanism vidare se stora prisk. sid. II och III.

Förväxla ej Reform-Orgeln med positiv, ariston eller diplkt! Reform-Orgeln återtages utan protest, om densamma icke är enligt priskuranten, med villkor att den returneras inom 6 dagar efter mottagandet från fabriken.

Se intygen öfver Complett- & Reform-Orglarne å sid. 7, stora priskuranten.

Ingen svårighet mera att spela Orgel!

Billigare Reform-Orglar.

Se intygen öfver Complett- & Reform-Orglarne å sid. 7, stora priskuranten.

Complett-Orgel stilar 4 och 6 med reformmekanism.

Amerikanskt system (sugton).

Vefmekaniken omfattar här 24 toner.

Complett-Orgel stil 4 med reformmek. Al i valnötsimitation, *1* stämma, *4* oktaver, *3 patent-knäregister:* Echo, Forte, Piano. *Pris kr. 185.*

Complett-Orgel stil 6 med reformmek. Al i valnötsimitation, *1* stämma, *5* oktaver, *3 patent-knäregister:* Echo, Forte, Piano. *Pris kr. 205.*

Förväxla ej Reform-Orgeln med positiv, ariston eller diplkt. Reform-Orgeln återtages utan protest, om densamma icke är enligt priskuranten, med villkor att den returneras inom 6 dagar efter mottagandet från fabriken.

Karlstad, Forsells Boktryckeri 1899.

the suction reservoir is hinged along its upper edge and extends almost the full area of the back of the organ case. Two large hairpin springs keep the reservoir normally open. When vacuum is created by pedalling on the two foot pedals, the reservoir closes inwards at the bottom against the spring pressure.

Craftsman-built

As the pictures display, the instrument is very well designed and built with beautiful workmanship and rich ornamentation. Admittedly it borrows some style from the American organ— it even has the utility of a mirror built into the upper part of the case and is thus typical of some other Swedish-built instruments in that it is made to serve an alternative everyday purpose besides that of producing music.

The instrument possesses an extremely beautiful sound and also has a rich tone. It is a joy to play and I myself get filled with a feeling of solemnity when I play it.

The photographs which accompany this article were taken for Bill Lindwall and Sven Forsell by Lars Falck. The original Nyström sales brochure, reproduced here, has been loaned by Sven Forsell. The Editor provides the following additional information on Nyström.

Johan Petter Nyström established his organ-building business at Karlstad in 1865 and turned his attention to mechanical organs in the late 1880s.

His first British patent was taken out on August 29th, 1889. This one, number 13,660, was for a reed organ played by hand or by means of a perforated endless band. His second patent, number 12,436, was dated August 8th, 1890 and this covered a variant of his earlier application. The perforated endless tune band was threaded over two rollers and operated pneumatically via a suction tracker bar organette-fashion.

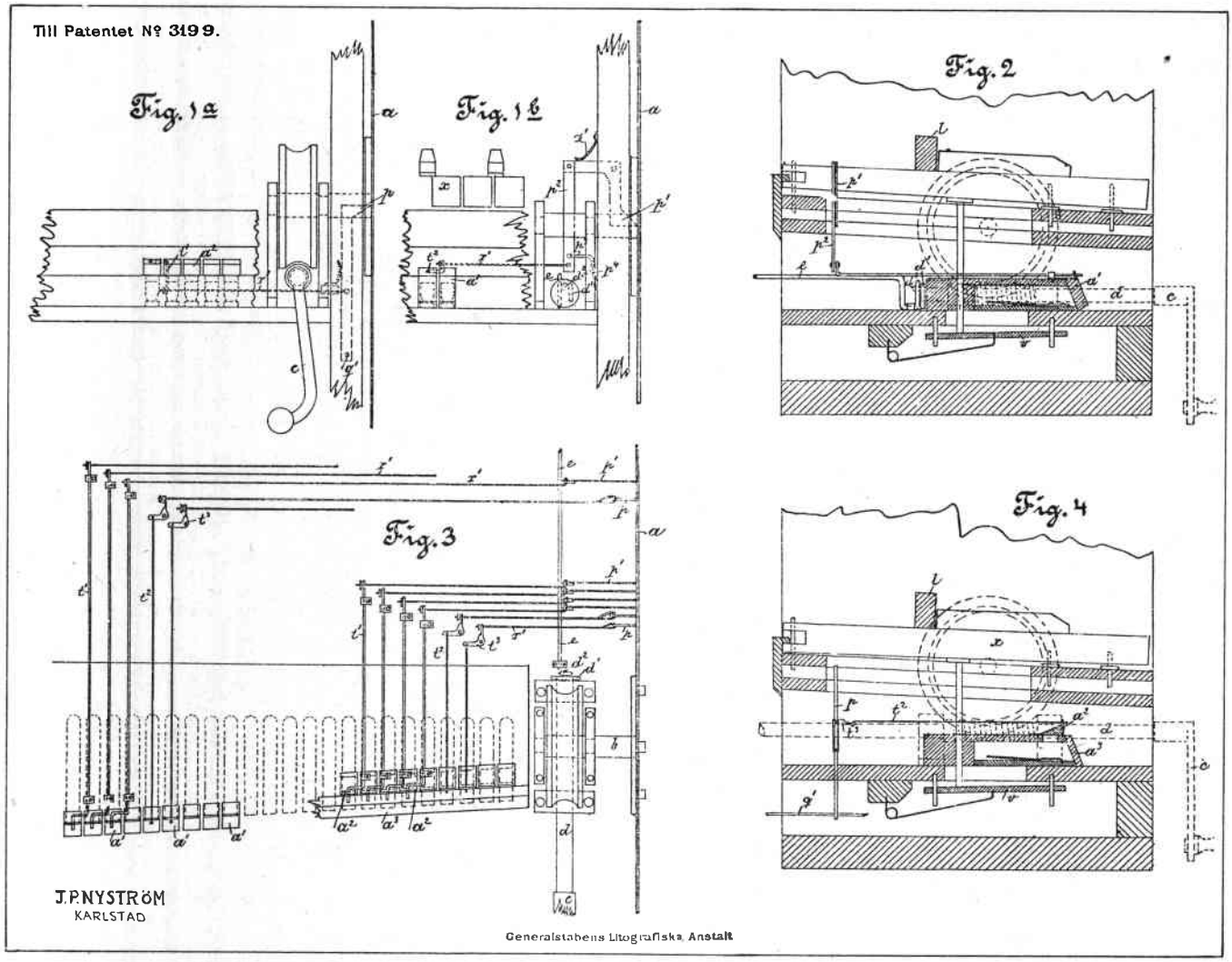
I have been unable to trace a British patent covering the disc-playing model described and illustrated here. The salient points of this are, though, illustrated in the plate from the Swedish patent, reproduced here.

The next British patent is in the name of C V Nyström and is number 19,075 dated October 24th, 1892. This represents a radical departure from the earlier inventions and is for an electro-magnetic device for recording keyboard music onto a barrel and then replaying the barrel by mechanical or electro-mechanical means.

On July 29th, 1898, patent number 1579 was granted to C W Nyström (was this the same man— son or successor—was C V transcribed erroneously?) and this was for an automatic music instrument recorder.

Extraordinary actions

What happened next is quite remarkable, for Nyström, in the name of C W Nyström, began patenting the most extraordinary and, by then standards, revolutionary player actions. Although these were electro-magnetic, they relied largely on the principle of Carpentier's Melotrope first shown at the International Electricity Exhibition of 1880. A rotating roller was used to produce the force required to depress a keyboard key via the kicking shoe type of action. The signal to produce a



note resulted in a shoe-shaped lever being lifted so that its toe came into contact with the rotating roller. The roller then caught the shoe and quickly rotated it through its arc of contact, so pushing a pitman down onto the keys with ample force.

These key-top players were a strange mixture of new and experimental technology and impracticalities which suggest that few if any can have been produced.

British patent number 7949 dated April 2nd, 1909, is typical. The incipit states: "In a player or music recorder for keyboard musical instruments of the type wherein wax-covered tune barrels or sheets are employed, two or more electro-magnets are provided for each note, which are energised in succession at time-intervals which vary according to the loudness of the note to be produced or recorded. The tune-sheet is provided with two grooves for each note. . . ."

Recording device

Patent 2418 of January 31st, 1910, was for a recording device to be fitted to a recording player piano so that pedal movements could be indicated by a stylus on a wax-coated travelling sheet.

A few weeks later, on February 5th, patent 2910 was granted for an improved electro-mechanical key-top player in which the kicking shoe action was duplicated for each note. Each rotated at a different velocity.

The last British patent granted to C W Nyström was number 21,594 dated September 30th, 1911. Here was another key-top player more or less as before but, instead of the kicking shoe action, a fully electric action is used to depress the key pitman.

It seems strange that the Nyström company should have persevered along this dead end in piano-playing when already at this time the Simplex player action, Aeolians, Hupfeld, Welte and others were already in existence and showing the direction in which players were going. It would indeed be very interesting to know if any Nyström piano-players survive. It is a certainty that if any survive, they must be in Sweden, for I cannot imagine they could have enjoyed an export market.

GAVIOLI'S MELOTON

THE business of Gavioli was founded in Paris in the year 1845 at 2 Avenue de Taillebourg. Its founder was Ludovic Gavioli, an Italian from Modena. With his sons Claude and Anselmo, the Gaviolis can truthfully be said to have been the fathers of the fair or showman's organ. Their inventions, both in the tonality and the mechanics of those instrument, along with the practical improvements which they later made with the introduction of perforated cardboard music, were to influence all those who came after them.

As organ builders, their business was dogged with misfortune and it was finally forced to close through a situation brought about by the very open-handedness and generosity of the Gavioli family. In the hard world of commerce, these genuine enthusiasts who trusted all with whom they came into contact were exploited over the years.

Like other fair organ builders, Gavioli entered the profession from the point of the church organ. As a talented organ builder he had unquestionable flair for his craft.

When finally the end came, the brothers Limonaire, who have been the subject of several articles in the previous volume of *The Music Box,* took over the remains of the company.

Besides producing barrel organs and later cardboard keyed and keyless organs, the Gavioli company also produced small reed barrel organs. For the itinerant street musician, these had the advantage of being somewhat lighter to carry than the pipe organ as used in the street. Gavioli's little organs he called Meltotons. They played 26 notes.

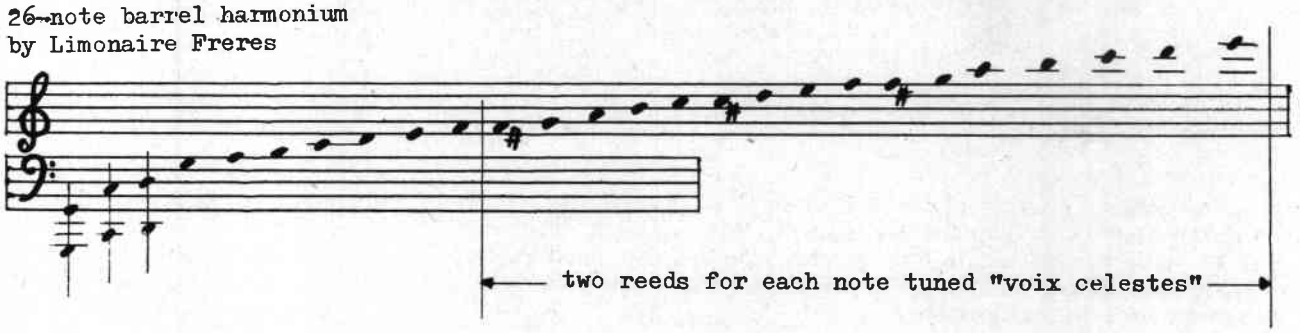
The example here belongs to Anthony Chaberlot and he has owned it for three years. This is a fine example of Gavioli's workmanship. Its operational principle was illustrated on page 522 of Volume 6.

The reeds are arranged in three sections. The bass has octave-coupled reeds, the middle has single reeds and the treble has double reeds tuned to a slight beat — the " voix celeste " arrangement.

The organ plays eight religious tunes with a loud and melodious voice.

Unfortunately, the exact scale has not been recorded but it is similar to that of the 26-note Limonaire Freres instrument, also made in Paris. This scale is reproduced below. *Illustrations by Anthony Chaberlot, Paris.*

26-note barrel harmonium
by Limonaire Freres



L'EPEE BEDPLATES

What was the material he used - or - do your own plating

by John L Hammond

MANY and strange are the descriptions and theories relating to the bedplate of cylinder musical boxes made by L'Épée — so often associated with the firm of Thibouville-Lamy. Writers have committed their ideas and assumptions to print and almost all are clearly guilty of having no practical assay made as a check. In any event, as a starter, a simple test with a magnet will always reveal the true nature of an iron bedplate whether plated, painted or lacquered. Note that sometimes late brass "ribbed" bedplates are painted and therefore similar to corresponding cast-iron ones.

Further common pitfalls are to assume that " plating " is inevitably associated with an applied electric current and that " plating " is necessarily termed " plating ".

I have three L'Épée boxes on hand as I write (two being identical in size and programme) none of the bedplates fits any description that I have read. All are cast-iron with the top worked to a smooth surface, which is of silvery appearance but with coppery patches. One has slight traces of gold paint which is also partly on the comb bed (also of cast iron) and very unlikely to be original. When the combs are lifted free the two " lines " of contact between bed and bedplate show the original colour to be "silvery metal" where it has been protected from the atmosphere.

A volume of *Spon's Workshop Receipts*, first published in 1873, is before me as I write. Although this contains the nucleus of the information we are looking for I am certain that the process is as old as the hills. It is duly indexed but is only discoverable when one knows what to look for !

I am talking about a simple process of plating articles of copper, brass and bronze with a coating of tin by imersion and, although used in certain trades such as pin-making and instrument making, seems to be very little known outside the trade and the plating industry. A life-long student of workshop processes and model engineering, I have never seen it mentioned in such contexts.

Whitening process

It is known as " whitening " also the " boiling white " process. In Spon it is indexed under " Tin, whitening by ". It is so simple it almost reeks of alchemy ! The clean brass or copper articles are merely heated in an aqueus solution of cream of tartar containing a small quantity of granulated tin. Horologists will recognise that this same cream of tartar (potassium bitartrate) is a common ingredient in dial silvering and restoring compounds. The quantities of the ingredients are not in any way critical.

Canning's *Handbook of Electroplating etc.* suggests 4oz cream of tartar to a gallon of water with grains of tin distributed among the articles. Solution heated to boiling point and gently simmered 2-3 hours. Articles then washed and dried.

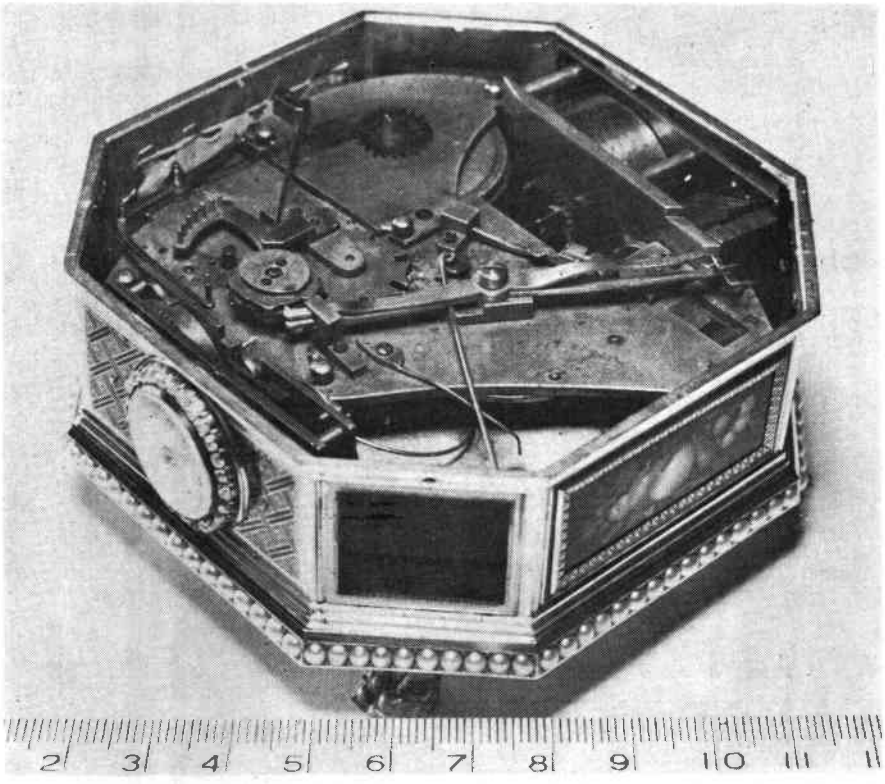
In my own experience the process is often completed in a shorter time when only small articles are being treated. The coating is reasonably bright and polished (if the raw article was bright and polished) and should stand a further light polish.

Other metals can be deposited in a similar way (e.g. nickel) by immersion and Canning's stress that the coating can be both thick and durable.

Small plated parts could be finished by tin plating this way for musical boxes but would not be as durable as the harder metals like nickel, of course.

When I worked as a scientific instrument maker, there was in the workshop a copper pan folded up box-like from a piece of copper sheet to be about 6 - 8 inches deep containing a solution of cream of tartar and some tin granules. The whole was kept simmering all day over two or three bunsen burners. If one had some articles to plate

Birdcage movement



Jaquet-Droz made a number of automaton singing caged birds. One is shown in the Maurice & Edouard Sandoz collection catalogue as Item 27 on page 74. Another belongs to Richmond Mason and was illustrated on pages 51, 127 and 271 of Volume 7. In the picture above can be seen how the movement fits into the clock base.

they were wired together and immersed in the pan and picked out again an hour or two later. Now and again someone emptied a bag of cream of tartar in or chucked in a small handful of tin granules when these had begun to disappear.

All very well, you say, but our bedplate is cast-iron. Right back to school days we must go when nearly all of us did immersion plating at school! Nearly all of us had penknives the blades of which we dipped in copper sulphate solution in the lab thereby plating with copper. As we can only tin plate coppery metals we must first coat our bedplate with copper! Although we could use a saturated solution of copper sulphate, a thin flash of copper is produced on iron and steel by immersion in the following solution :

copper sulphate	2 oz
sulphuric acid	1 fluid oz
water	1 gallon

The action is actually electro-chemical. The clean articles are immersed for a few seconds, rinsed and dried. Heavier deposits can be obtained but are spongy and loosely adherent.

A finished bedplate would have the top surface worked up to the best finish possible, copper immersion plated, rinsed thoroughly and then tin-plated by " boiling white ". Polishing, if required, would be a matter for experiment. The tin coating would probably stand a polishing and possibly the thin intermediate copper coat would too before " boiling white ".

Not as durable

This method of plating although very satisfactory is not as durable as more modern harder materials, chromium, nickel etc, and over the years. *a hundred years perhaps*, as the tin coat wears thinner, possibly aided by atmospheric attack or emanations from the case wood, the copper shows through in patches (occasionally, perhaps the base cast iron) giving intermediate shades of colour between copper and tin.

There are other formulae giving thicker coatings of tin which may have been used at the L'Epée factory, but as the principal ingredient is the highly poisonous sodium cyanide details are not included here. Again it is, I suppose, remotely possible that electro-deposition was used.

I see no reason why L'Epée bedplates should not be restored like new.

For those who can still see canals on Mars and " brass " on L'Epée bedplates a brass colour is obtained on iron or steel by a long stirring " in a tub " of a solution (Spon, 1873):

water	1 quart
copper sulphate	about 1/5oz
protochloride of tin	about 1/5oz

Colour shade varied by varying proportions of the two salts. At the moment of writing I am not able to give another name to the tin salt.

Yes, but what about this " for free " business ? Ooh, ah, I nearly forgot that (this really is alchemy!). When I first learned of this process, nearly forty years ago, cream of tartar was about 3d per oz and it was possible to do the process in an empty food can (choosing one with a good clean tinned interior, not lacquered and yellowish or of light alloy !) with a small article and the tin plate transfers itself from the can interior to the article ! I didn't believe until I tried it ! Not *quite* free, but the material cost was only a fraction of a penny. Cream of tartar (not 3d per oz !) is obtainable from your grocer, supermarket chemist or laboratory furnishers. Tin is obtainable from laboratory furnishers or non-ferrous metal dealers, if only obtainable in stick-form the " granulated " variety is made by melting the stick end over cold water the solidified drops being " granulated " tin. In case of difficulty or query contact the writer.

One can speculate as to why L'Epée used cast-iron for his bedplates and as to why he chose to plate them. Whether he thought there was an acoustic advantage or there was some financial gain at the time I cannot say. The top of the bedplate, as a reference and mounting surface has to be flat in any case and perhaps it was thought that the plated surface was at the same time durable, rust resistant, attractive and easy to produce. The velocity of sound is somewhat higher in cast iron than in brass. Incidentally always keep the keeper on your magnet and away from your fine tools — horologists abhor magnets.

Critical of other writers, have I ordered a practical assay on the bedplate ? Now that's an interesting question, I'm glad you ask that. . . . .

A musical valet

DURING a recent visit to the offices of THE MUSIC BOX, Claude Marchal, president of the AAIMM in France, demonstrated an unusual musical article which he had bought in a London street market.

The piece would quite easily be overlooked by any casual musical box seeker for outwardly it appeared to be a perfectly normal, unspectacular clothes brush !

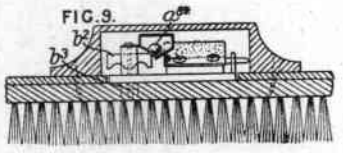
A small button in the finger recess along one side of the wooden brush body operated the on-off control and the musical movement was wound by inserting a key, somewhat along a trial and error basis, into a small key hole amidst the bristles in the underside of the handle. Numerous ill-judged stabs at finding said orifice were indicated by the number of crushed and bent bristles around the area.

Fortunately for Claude Marchal, the brush was complete in its original cardboard box upon the lid of which was printed : " Pat. 23441 G. B. Kent & Sons, Ltd, London ".

An examination of British Patents reveals that this patent was granted to R J Hardy and L Serne on October 14, 1912, and that it was assigned to H Oltmans. Apparently there were several methods of arranging the device to play as shown in the attached reprint of the patent abridgement.

Both these two patentees also received a patent, again assigned to Oltmans, for a musical holder for " toilet or wrapping paper " so that " the act of pulling upon the paper to detach a piece causes a musical instrument, such as a musical box or reed instrument, to be sounded". This was also in 1912, and the patent number is 26,553 dated November 19.

23,221. Hardy, R. J., and **Serné, L.,** [*Oltmans, H.*]. Oct. 14.



Combined with brushes; tune-barrels, driving. —A brush is combined with a clockwork-driven musical instrument, the stop device of which is released on handling the brush. In two constructions, a spring finger-piece or stud removes the stop from the path of the fly. As shown in Fig. 9 the ball a^{3*} releases the fly b^2 on tilting the brush; or the weight a^{3*} may be pendulous. The winding-arbor b^3 is concealed by the bristles.

THE LONGUE MARCHE

THE 1870s represented a period of great development for the cylinder musical box. Indeed, if one extends that decade into two, running from 1865 through to 1885, then that score of years embraced just about every major improvement in the instrument which elevated it from the earlier basic musical movement through to the multiple variety format offered by the time serious musical box production was being faced with declining sales and competition.

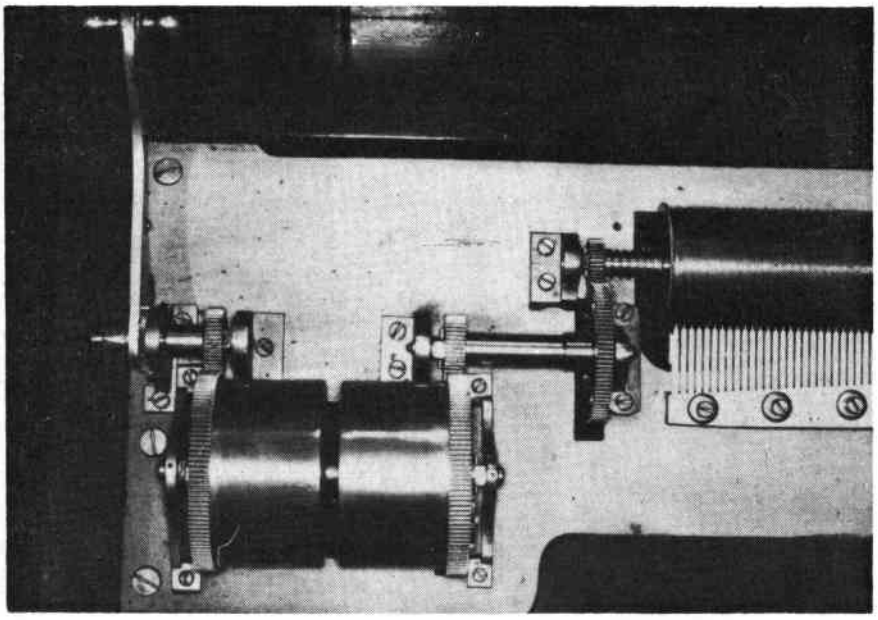
But the 1870 - 1880 period was especially rich in technological advances. The interchangeable cylinder movement, multiple combs and production improvements all came in this era.

One of the improvements was a method whereby the cylinder musical box could be made to play for appreciably longer than had hitherto been possible. An obvious solution had been the introduction of multiple-spring motors, but this in itself was not the ultimate solution. Increasing spring power meant varying spring barrel gear and cylinder pinion gears beyond acceptable limits and also imposed greater strains on the governor assembly and needed a much larger fan.

It was these constrictions which lead to the invention of the *Longue Marché* movement. Characterised by the interposition of a layshaft between spring barrel and cylinder arbor, the Longue Marché served to increase the playing time of the musical box by allowing a much stronger spring motor to be used, usually a double co-axial spring, or a parallel co-axial arrangement.

Several inventors worked to this end, but the one to whom the invention of the name is attributed was Daniel Aubert. He was granted British patent number 3711 dated September 16th, 1879 (in the name of Aubert & Son), and US patent number 238,326 of 1881 (in his own name).

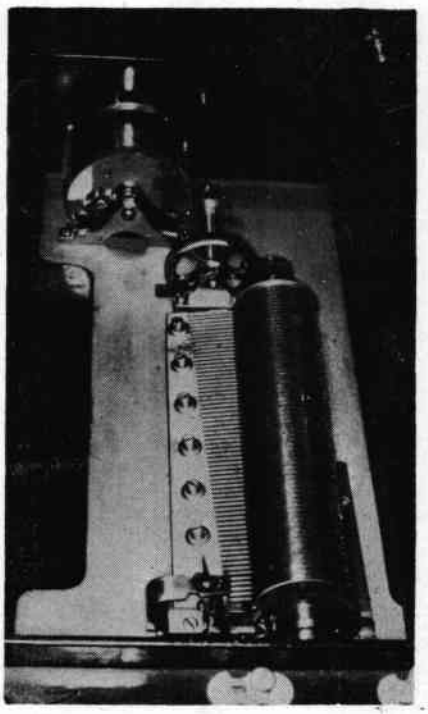
Subsequently the layshaft with a small pinion one end and a larger



wheel at the other was extended to the provision of an extremely large, slender wheel on the layshaft aimed at further increasing the playing time and allowing yet more powerful springs to be used.

This was patented in America on December 28th, 1886, by Heinrich Zumsteg and assigned to Mermod Freres. On July 17th, 1886, A Karrer of Teufenthal was granted British patent number 9024 for the same arrangement.

The majority of Longue Marché movements have very wide bedplates which are supported some distance above the bottom of the case so as to allow the super-great wheel to pass through the bedplate. Musically speaking, and although they often benefit from the large resonating space provided by the box, these musical boxes are not overly spectacular.



A similar type of movement was marketed by Paillard. This featured a co-axial double-spring long-playing movement and was styled *Sublime Harmonie Longue Marché.*

The musical box illustrated here, from the C de Vere Green collection, is of the Aubert system and features a geared ratchet winder to make it easy to wind the powerful motor. This is of the co-axial type.

It will be noticed that there is a large piece of the bedplate cut out at the front of the movement and the reasons for this characteristic, found on a number of boxes, in particular Flutina or organ-playing musical movements, is not altogether clear.

An obvious one might be to save weight in the finished box. Another might be to save material: after all, there was no point in permitting a musical box to cost more than was absolutely necessary.

Another approach might be the explanation that this cut-out was to allow the sound to filter through from the cavernous space beneath. If this was so, then why is it that in many movements this space is filled in with a wooden panel?

The probability is that the true solution is a combination of all three factors. The days of the portable musical box were fast passing and, as the instrument became more refined, its purchasers became less fastidious as regards its musicality and more particular about its gimmickry. A large box was impressive. A *heavy* large one was even more attractive. The more pounds avoirdupois gained for the pound sterling, the better —to some—the buy.

In another variation of the same lowering of quality which gained hold as the century's end approached was the tendency to make musical box cases much larger than needed to house the movement. Tiny movements—big cases became the order of the day. At the other end of the scale, the early models featured cases which were only just big enough to house the movement: on some, pieces of case wood have had to be carved away to clear tuning weights, motor gear and suchlike.

Reverting to the Longue Marché, in later pages, we will feature the Mermod variety with giant layshaft wheel.

New owners for Regina Music Box Co

THE Regina Music Box Company, founded in 1894 and latterly operated as a private business by Lloyd G Kelly, is now owned by Mr J Harry Carmel and Mrs Nancy C Carmel, newly-enrolled MBSOGB members.

As from June 1st, 1976, the title to the company and the rights for manufacturing discs and machines under the name Regina passed to the Carmels. In making this announcement, J Harry Carmel stresses the extreme co-operation he has received from the former owner of the company and acknowledges that for over 35 years Lloyd Kelly operated the business largely single-handed. Mr Kelly, however, retains the right to produce Regina musical boxes himself if he chooses.

The Regina Music Box Company is now re-located at 7013 West Crandall Avenue, Worth, Illinois 60482, and its new owners announce that by the end of this year they hope to be in a position to start manufacture of 15½inch Regina instruments and discs. Ultimately, they plan to publish discs for 8inch, 11inch, 12¼inch, 15½inch, 20¾inch and 27inch models and offer a choice of finishes such as " brushed copper, brass or tin ".

Additionally, musical box repairs will be undertaken and parts supplied for all types of instrument. The microfilm records of the former company are also transferred and for $2·50 the new company offers a printed card suitable for framing affording all available manufacturing and shipping data on any particular Regina model.

This now brings to four the members in America who are producing new Reginas, three under that name (Meekins, Kelly and Carmel/Regina) and the other under Porter. No doubt some mutually beneficial co-operative can be evolved between them concerning the supply of common elements thereby assisting costs and availability.

LOUIS HOOGHUYS

ORIGINALLY a Dutch family, the Hooghuys settled in Belgium and became famed for some very characteristic dance-organs which today are both scarce and cherished.

IF YOU say "Hooghuys" to a Dutchman, he probably won't understand you. Unless, of course, you can pronounce it the right way. If you can pronounce "ch" as in "Loch" and say "Hoachhouse" and accompany it with a mime of a show-organ playing loudly—it's up to you how you do that—then he'll more than likely get the message.

Until a few years ago, Hooghuys was considered a scarce breed of show-organ, if only for the fact that of the large number of these outstanding organs made, very few seemed to have survived, or those that had had been given other, more familiar names. Gavioli, for instance, is easy to say. One wonders, in passing, what would have happened if the German organ maker Ruth had amalgamated with Gavioli in Paris. Would we, for example, have had *Ravioli* organs?

Back, though, to Hooghuys or, as one showman I once met insisted on calling his example, "Hewgoys".

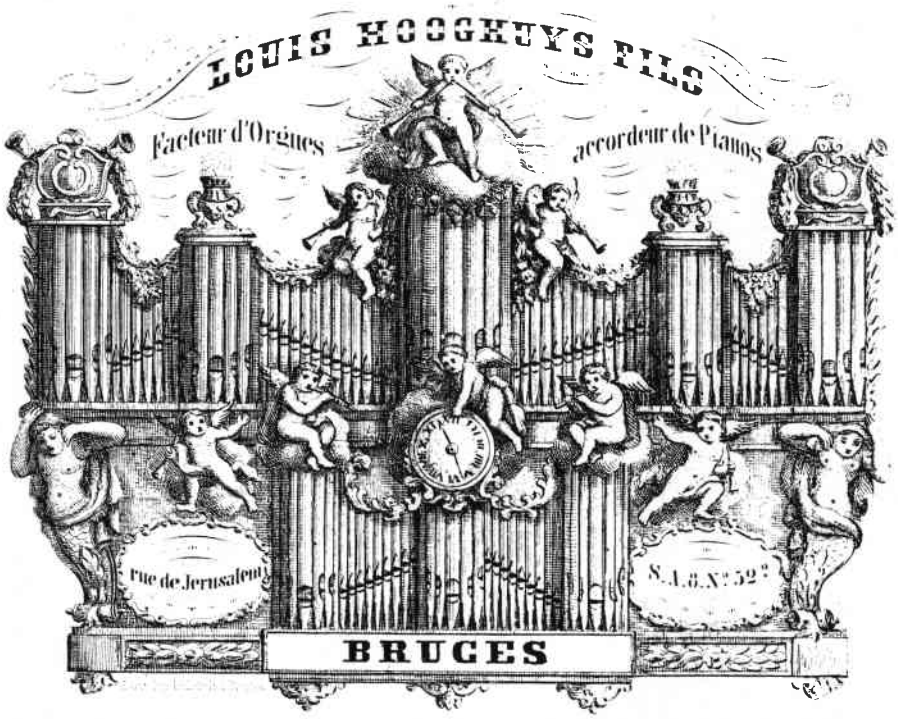
Whereas most builders of show-organs went in for average volume of sound production, Hooghuys went in for the loudest sound it was possible to produce from organ pipes and percussion without generating unpleasantness. A Hooghuys, it is said, can drown a common Gavioli at ten paces. . . .

The name Hooghuys, sometimes spelled in French reference works (e.g., Gregoir *Historique de la Facture et des Facteurs d'Orgues*) as Hooghuis, is one which was initially associated only with the manufacture of fine church and cathedral organs.

Church organ tradition

Gerrit Hooghuys was born at Worm in North Holland in 1753 (according to some sources, 1754). He came from a family with a tradition of organ building for churches. At the age of 34, in 1787, he went to live in Middleburg in Holland. There he remained until 1805 when he moved to Bruges in Flanders, Belgium, where he died in 1813.

In 1780 his son, Simon Gerard, was born in Middleburg. At the age of five he was taken by his father to Bruges where he grew up to become a famed builder of church organs. He died in 1853.



From the collection of Mr and Mrs Danny Dekyndt of Aalst in Belgium comes this beautiful and rare trade card from the days before Hooghuys moved to Grammont. Card is on porcelain-glazed paper printed in subtle shades of grey through purple to gold at the top. The card is a true work of art in design and manufacture.

Outstanding instruments

Simon Gerard himself produced two sons, Louis Benoit and Francois Bernard. Louis Benoit was born in Bruges on March 21st, 1822: his brother was born in 1830. Both built outstanding church organs and many are still in use in Belgium, Holland, Denmark, Sweden and Germany. According to Romain Hooghuys (see further on) Louis Benoit had a good reputation on the Continent and became friends with church organ players of great renown as well as with Jean de Bethune who was a promoter of the neo-Gothic style of architecture in Belgium. Probably as a result of this, Louis Benoit Hooghuys applied that architectural style to the fronts of his organs and he was one of the most interesting—and enterprising — exponents of church organ façade design in the 19th century. Among the organs for which he was responsible are those in Freiburg Cathedral (Wurtemburg, Germany) and the Cathedral of Tvedestrand in Norway.

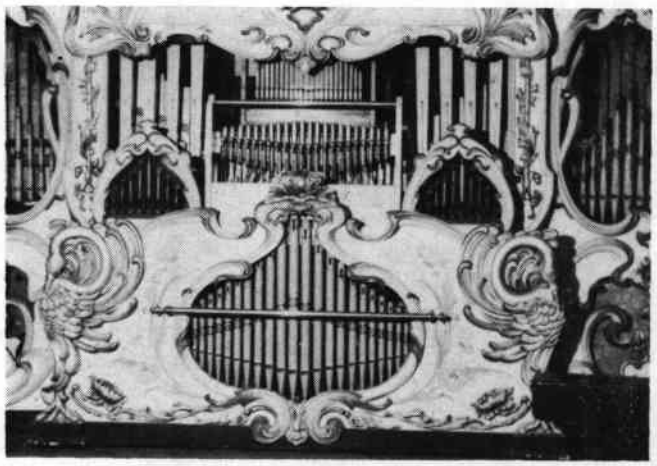
Louis Benoit died on April 16th, 1885, and Francois Bernard in 1888. Both produced sons who were to take the name of Hooghuys away from church organ-building, then in the decline throughout the Netherlands and Belgium, and into the growing business of street and show organs.

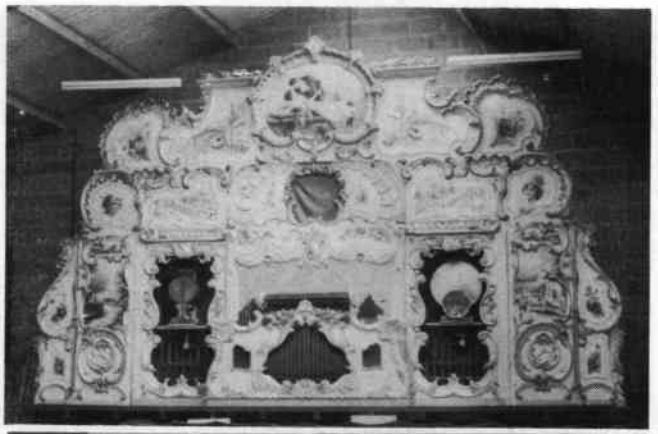
Louis Antoine (1854-1897), Aimé (1858 - January 8th, 1904) and Louis Francois (May 14th, 1856 - November 16th, 1924) were the sons of Louis Benoit. Edouard (1862 - 1925) and Edgard (1873 - 1958) were the sons of Francois Bernard.

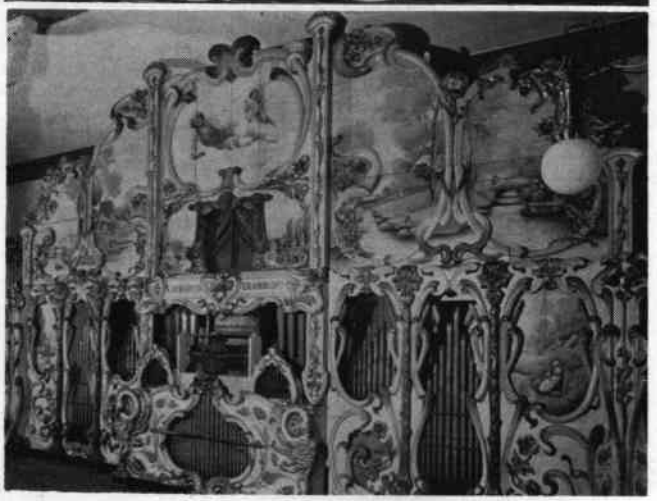
First barrel organ factory

Louis Francois was the one who made the break from church organs when, in 1880, he founded the first barrel organ factory in Belgium and Holland at Grammont in Flanders, Belgium. By 1896, the first Orchestrophone organs (dance and fair organs operating on perforated cardboard music) were made by him. Romain Hooghuys points out that these were the first pneumatic organs to play in Belgium and Holland.

The five men initially all worked together but their divisions of interest were specific. Louis







A parade of Hooghuys dance organs. Probably the most complete example surviving in Europe is that preserved today in the Nationaal Museum van Speeldoos tot Pierement in Utrecht. This is pictured lower right and in detail at the top left. The dominant xylophone register can be seen and also the symmetrically-framed piano above the xylophone (lower picture). Top right is Mr G T Cushing's specimen shown in detail lower left. This one has had the piano removed and a drape put in its place. All pictures except lower right by Miss Judith Howard of the Mechanical Organ Trust, whose foundation is recorded on page 52.

Antoine concentrated more and more on the selling, repairing and tuning of pianos. Aimé remained interested in church organs and devoted himself to their maintenance and tuning. Edouard built street organs and Edgard concentrated on music arranging and the skilled task of *noteur* — marking out the music for punching.

Extreme sophistication

Louis Francois was the motivating force behind the Hooghuys show and dance organ building era and in his lifetime the instrument developed from the prototype Belgian street barrel organ into a book-music organ of extreme sophistication and tonal resources. Prominent percussion instruments were a characteristic, a dulcimer or piano frequently being used, or a xylophone arranged as a focal point on the façade of the organ. None is known to survive with the piano operative and, indeed, the example in the Utrecht Museum is the only one in which this feature is preserved. Inaccessibility and the difficulty of keeping it in tune seem to have been the prime cause of its disuse.

The family tree can be brought up to date. Louis Francois' son, Charles Francois, was born on April 15th, 1878. He rebuilt and modified a number of instruments and was responsible for a number of new organs. He died on March 14th, 1951.

Romain-Charles Hooghuys was born on July 22nd, 1901, and so came in right at the end of the dance-organ vogue in the Low Countries. He concentrated in later years in arranging music and composing but, on finding some of his grandfather's instruments quietly rotting away, was inspired to rebuild them. He is still alive and active in this task while his youngest son, Marc Charles Hooghuys, who was born on October 12th, 1945, is continuing the reputation of the Hooghuys family name in show-organ building.

Hooghuys is still something of a scarce marque in the world of the show-organ. But the instruments are indeed highly respected. They are renowned for their exceptionally prompt repetition, an action system patented around 1900 by Louis Francois.

The Hooghuys family now live in Zeebrugge where Romain-Charles moved with his mother in 1953 with the intention of leading a quiet life.

Nostalgia

In a recent article which he wrote for *The Keyframe*, he said:

"I am now 74 years of age (born in 1901) and I am still enjoying the lovely organ music of my own organs with the souvenir of the good old romantic time when our organs were playing on the fairgrounds in the roundabouts and at all kinds of festivities. Will that time ever come back? I think not, and I am very sorry about it. I am inclined to weep when I remember with nostalgia that lovely age of the generation of my youth."

Hooghuys organs in England include a drastically cut down-cased 89-key instrument owned by D D Price at Tewkesbury, A B Oram's small 59-key model, a 60-key model, also owned by D D Price, John Boutwood's 72-key specimen and the late W J Barlow's 84-key and 89-key models.

MECHANICAL MUSIC

A résumé of the history of 2,000 years of progress

IT is almost a truism to say that musical instruments which can be played artificially are as old as any other form of musical instrument created by Man for his pleasure.

To understand and verify this, one needs to go right back into the history of Man, his primitive beliefs and thinking, his abilities and his requirements. From earliest times, artificially-played (self-playing) instruments were to be found side by side with those upon which a person might play by hand or mouth.

Indeed, the parallel development of self-acting and "normal" musical instruments continued right through the Middle Ages and the last traces of it, re-kindled by the player piano in the first three decades of this present century, only disappeared in the past 30 or 40 years.

From this it becomes easier to appreciate that a self-playing musical instrument was considered in no way unusual or unnatural and therefore earned scant attention from those who chronicled the early history of mankind and his achievements.

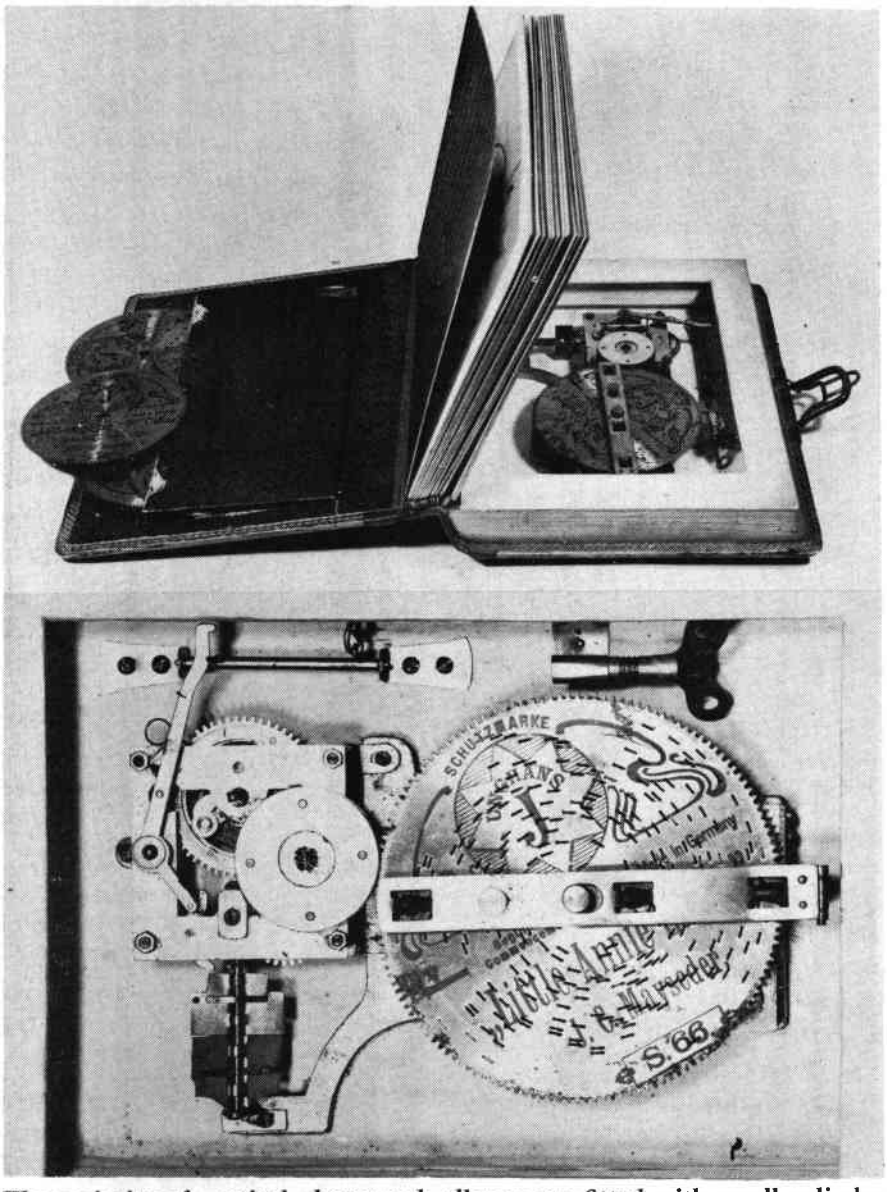
But what were these ancient automatic instruments? Accepting that the organ in its elemental form — the wind-blown pipe or flute — is of extreme antiquity, and that the organ itself must pre-date Jesus Christ (its invention is variously attributed to Plato, to Aristotle, Jubal, Archimedes and others), then it is not so surprising that we read that Apollonios of Perga (fl. 247-205 BC) and called by the Arabs Abliniyus, Abluniyus, Bulunyas, and Balinus, is credited with the authorship of a work on an automatic wind instrumentalist entitled *San' at al-zamir (Construction of the Wind Instrumentalist)* which has only come down to us in the Arabic version. It is significant to notice here that it is not the instrument itself which is described as self-acting, but the *player* which is intended to be artificially constructed! The instrument which this describes is somewhat basic being a cistern filled with air into which water is poured, so compressing the air and forcing it through an organ pipe which speaks.

According to the testimony of Athenaios, wind pressure stabilisation was developed as early as the third century BC by Ktesibios (Ctesibius of Alexandria).

All this establishes that automatic means of playing instruments, albeit very primitive ones and in a very elemental manner, goes back considerably more than two thousand years.

Apollonius had produced a whole treatise on the construction of self-playing musical instruments which included water-pumped organs and automatic flutes. In the first century AD, Hero of Alexandria developed the ideas of Apollonius in his many inventions which included an automatic fountain, automatic singing birds and, at the basis of them all, advanced hydraulics. For it was water which was the motive force behind all these early mechanical instruments. Water drove the water-motor which powered the mechanism, and water compressed the air which played

Disc-playing photo album



The majority of musical photograph albums are fitted with small cylinder movements. Just a few were made with Unghans J-size disc mechanisms. Spare discs could be kept in a hinged compartment in the front cover. One specimen is in the Norton Collection. This one is pictured by courtesy of Christie's South Kensington.

the musical pipes.

The real breakthrough in mechanising music and its instruments came with the application of the wheel and this was first documented — although there is no indication whatsoever that this was the first such use of the principle— by the Bana Musa in the 9th century AD. The Bana Musa, a group of wise philosophers, left us a remarkable treatise on the construction of a mechanical pipe organ, the key element of which is a wheel upon the periphery of which are projections which are used to open and close a valve allowing wind into a pipe. By extending the wheel laterally so as to allow room for more pipes and valves, the Bana Musa produced the earliest known description of the construction of a barrel organ.

Significantly, when the great Arabic polymath, Ibn al-Razzaz al-Jazari, produced his manuscript *Book of Knowledge of Ingenious Mechanical Devices*, which was probably written in the year 1204 or 1206 AD, we are at first disappointed to find that his mechanical musical instruments are little different from those of Apollonius. Al-Jazari still uses water, he still uses air trapped in a slowly-filling cistern to blow musical pipes in his *perpetual flautist*. However, we find that he has benefitted from the work of al-Asturlabi in the year 1174 AD and proceeds to describe a double-acting syphon which will play continuously thanks to perpetual motion (which al-Jazari casually implies that he has also just invented).

Artistic imagination

When Robert Fludd (alias de Fluctibus) published his *De Naturae Simia* in Oppenheim in the year 1618, he brought a high degree of imagination and artistry to mechanical instruments. Still he used the compressive powers of water to force air through musical pipes but, much more important, he showed us the first clear diagrams of a proper barrel organ in which the music to be played was arranged as a pattern of projections upon the surface of a rotating cylinder or barrel. These projections were employed to lift keys or levers which in turn acted upon a wind chest and admitted wind to a certain and pre-selected pipe.

Fludd, one must admit, was far more of an artist than his predecessors had been in their task of chronicling the organ and we find that many of his drawings, although practical to a certain extent, are virtually incapable of operation in the manner drawn. This was the high period of creative invention towards making things work automatically on a "for all time" basis and, although many of the writers sincerely believed what they described to be perfectly feasible, all they had really succeeded in doing was to contrive their hoped-for solution to the chimera of musical perpetual motion.

If Fludd's inventions were slightly less than practical, those of Caspar Schott published in his work *Technica Curiosa* at Nurnberg in 1664 were almost wholly impractical on account of their bad drawing. Many were poorly copied from Fludd and most suffered from a complete failure to understand how the mechanisms were supposed (by Fludd) to work. But Schott did advance some more recent solutions to the problem and gave us wind compressed by alternative means to water.

Accurate description

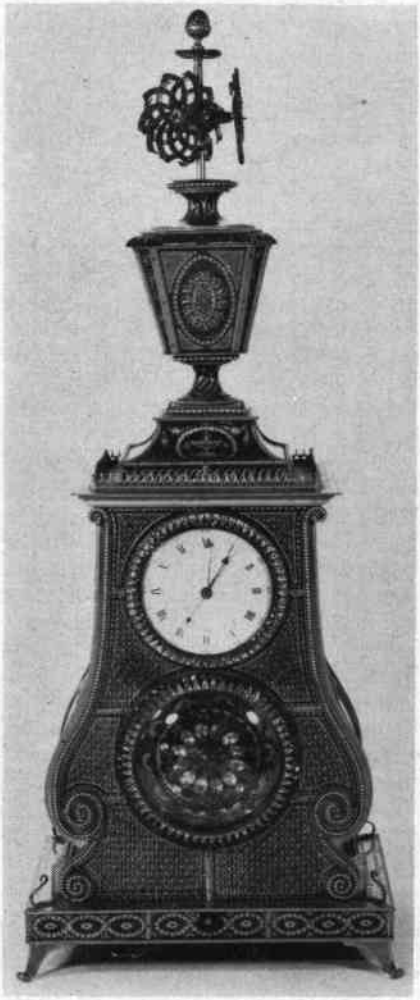
But it was Athanasius Kircher in his book *Musurgia Universalis* (Rome, 1650) who gave us for the first time a fairly accurate chronicle of the state of the art which ruled at that time on the subject of making mechanical musical instruments. His beautifully illustrated work showed us all manner of water-turned organs which were based upon the famous water organs in the gardens of the Villa d'Este at Tivoli which were said to date from 1549. However Kircher's drawing of these instruments, also subsequently copied in Schott's work fourteen years later, were themselves copied from a much earlier drawing attributed to the Neopolitan physician and polymath, Giovanni Battista della Porta who published a book called *Magia Naturalis* in 1569.

These water-powered organs were immensely popular and extremely fashionable in their time. Among the most celebrated was the instrument in grounds of the house of Cardinal Pietro Aldobrandini near Frascati. These organs functioned by having water spill continuously on to a water-wheel "with great force" as related by Montaigne in his *Journal de Voyage*, written in 1580-81 but not published until 1774. As this wheel turned, connecting rods from a crank pumped air using bellows in order to sound the pipes.

One such water organ survives today and that is one created in the famous mechanical theatre at Hellbrunn, eight kilometres from Salzburg.

It is at Salzburg that the oldest mechanical organ in the world to survive in playing order can be found. This instrument, high up in the walls of Salzburg Castle, was first built in the year 1502 and, after many restorations through the centuries, is still in playing order today. These so called *hornwerk* organ are rare indeed today. Engl (*Das Hornwerk auf Höhensalzburg*, Salzburg, 1909) believes the type to date back to the 14th century. This is a century after the first recorded manuscripts describing the use of

COX-TYPE CLOCK MAKES £8,888



This enamelled silver automaton clock, once in the Ionides collection and reputedly the property of the Empress of China looted during the Boxer rising, made £8,888 at Christie's Geneva, April 26, 1976. Created in the James Cox style, the corbel-shaped gilt-metal case has a rotating catherine wheel set with coloured stones. Top finials also turn. Four tunes are played on nine bells; another nine are used in chiming and striking.

the bell as an instrument of automatic music. Here again, as well as showing a manual way of playing a tuned set of bells — a carillon — the authors also set about describing how to make an automaton player in the shape of a person.

While the automatic organ was celebrating at least fifteen centuries of development, the first self-playing sets of musical bells were not set up in Holland until the 14th and 15th centuries. These were operated by means of a rotating iron drum in which were set iron pegs to engage in a system of levers which in turn moved the bell hammers and sounded the bells. In about 1480, the mechanical carillon was supplemented by the addition of a keyboard so that now the instrument could be played upon manually, or left to its own self-playing devices. The set of mechanically-operated bells played by a pinned cylinder was called *voorslag* (pronounced *fore-slagh*) although it has come to be known by the name given to the later and improved mechanism—*carillon*. The person who plays a set of bells manually is properly termed *klokkenist* in Holland, *beiaardier* in Flanders, and *carilloneur* in France, which name is also used in England.

Automatic bells

The first tower bells to be equipped with an automatic device for playing appears to have been those in the Sint Nicolaas-kerk in Brussels installed sometime before the year 1381. Within half a century, many other churches had similar mechanisms.

By the 17th century the iron drum had been replaced by a cylinder made of bell-metal (the same metal used to cast the bells) and the art of pinning music of varied tempo and musical time was highly developed.

Among those who devoted their lives to furthering the art and science of automatic music were two men of the church who between them taught the world of barrel organ builders, carillon-pinners and, later, musical box makers, the intricacies and the solution to the problems of arranging music to be played from the surface of a rotating barrel.

Marie Dominique Joseph Engramelle produced his masterly *La Tonotechnie ou l'Art de Noter les Cylindres* (Paris, 1775) and three years later, Dom Francois Bedos de Celles published his monumental reference work *L'Art de Facteur d'Orgues* which not only described the method of pinning music on to barrels for mechanical organs, but showed the tools to be used, how to use them and, just to make doubly certain, provided two complete musical scores and showed how they were translated into the bent-up pieces of flat-sectioned brass wire which lay at the core of *musique mécanique*.

An early centre for the manufacture of mechanical musical instruments was Augsburg in Germany where, as early as the start of the 16th century, some outstanding pieces of craftsmanship were produced. These instruments were distinguished not just by the fact that each was unique, but by the sheer freedom of ingenuity used by their builders who were refreshingly unfettered by any form of mechanical convention. Men like Hans Leo Hassler and G Heinlein had, under the auspices of the Emperor Rudolf II, constructed a number of musical automata featuring self-playing organs. Developing on this technology, Hans Schlottheim, Matthaus Rungell, Samuel Bidermann and Achilles Langenbucher formed the cornerstones of the most exciting period of the early mechanical organ in Europe.

Aware that the barrel was only one form of establishing a musical programme for a mechanical organ, these men individually contrived some remarkable pieces of automata into which they built organs. The physical proportions of these dictated that convention, as such existed, should be cast to the wind. In place of the large and cumbersome barrel, they used flat discs with projections fixed into the surface, they used wheels with projections on the periphery, and they arranged these pieces in whatever order the finished item might dictate. To illustrate this, in Schlottheim's *Tower of Babylon (Der Babylonishe Turm)*, the disc which provides provides the musical programme is arranged flat at the bottom, the bellows assembly is fixed above it, and the pipework is mounted above that. In Rungell's Dance of the *Hottentots (Hottentottentanz)* the music wheel is fixed to one side, the bellows next to it and the pipework underneath.

Mechanical spinets

Samuel Bidermann was among the first to make a clockwork spinet and he made a number of small table-top instruments which could either be played by hand or operated mechanically. Several of these have survived and two have been restored to playing condition in recent years. These were constructed towards the end of the 16th century.

During the next two centuries, mechanical organs proliferated and with the growth of the clockmaking industry in Southern Germany, it is not to be wondered at that the majority of these were clock-driven, either by a spring motor, or in the greater majority of instances, by the kinetic energy of a heavy weight wound up by a hand winch and allowed slowly to desend.

At this point, the organ moved in three different directions. First the organ-playing clock, essentially a product of the Black Forest in Germany and also of Amsterdam, developed into a highly-sophisticated musical mechanism which could play every hour automatically. Then came the so-called *orchestrion* organ which was large and intended as an impressive visual machine which, with its percussion effects, could reproduce the effect of a band of musicians. The third and final type was the gradual development of the small chamber barrel organ which was operated by turning a handle.

Self-playing organs

Each of the three divisions had its variants. Besides the organ-playing clock (sometimes called flute-playing clock, but essentially the same thing), the clock was also fitted with a means of exchanging barrels so that a change of repertoire became possible. Clocks were also made which played upon a dulcimer of tuned strings, or a carillon of bells, occasionally in accompaniment with the organ. Then the orchestrion organ developed into a virtual mechanical orchestra which could play music virtually note-perfect from an orchestral score. And finally the hand-cranked barrel organ divided into three types: one for use in churches, one for use in the domestic living room and one which could be played in the street.

The church barrel organ was almost entirely an English prerogative and, apart from one or two isolated examples in Germany and France, this form of the instrument became a feature of the English church scene. From their inception in the late 18th century through to their final supercession towards the end of the last century, many small chapels and churches across the land relied solely upon a barrel organ, sometimes picturesquely termed "a singing engine", for their music.

The domestic barrel organ com-

peted with the larger orchestrion for a place in the home but, being considerably smaller, was more suited to the average house. Frequently these would be provided with a change of barrels, one of which would be provided with hymns for Sunday use.

The street barrel organ was an Italian invention and for many of its earlier years it was termed *orgue de barbari*. It dates back to the opening years of the 18th century and between the period 1760 and the start of the present century it was a major dispenser of music to the general public, bringing them a mixed diet of opera, the classics and contemporary light music. It has been computed that the street organ and, later, its cousin the street piano (referred to further on), were together responsible for more than 85 per cent of the music which the average town dweller heard. Whereas the invention was Italian and street organs were built in many parts of the world by Italians, it was the German barrel organ industry in Waldkirch which was responsible for some of the finest street organs in the period from 1880 onwards. These, with their shrill piccolo rank of pipes, were musically very fine instruments indeed.

World's biggest

The world's biggest chamber barrel organ deserves special mention because not only was it a mechanical triumph, it was the only concert organ available for the public to attend organ recitals on for more than a quarter of a century. Built by Flight & Robson in London it was called the *Apollonicon* and was first opened in 1817. This gigantic instrument — it stood 20 feet wide and was capable of being played upon manually by five performers at once—was provided with barrels which acted together upon no fewer than 250 keys for the mechanical performance of each piece of music. Organ stop selection and changing was done automatically from special barrel pins acting on special keys. This extraordinary instrument was subsequently rebuilt by the organ builder Hill and extended to include a sixth manual performer and in this form it was exhibited as a recital organ until the late 1860s after which it was dismantled and dispersed.

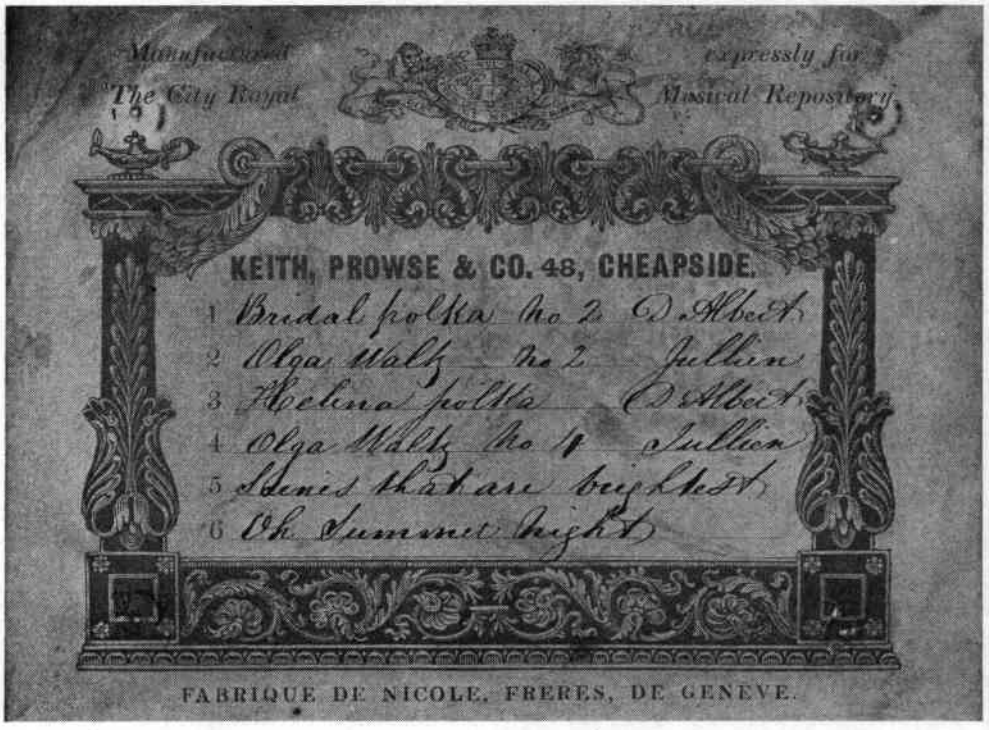
The application of the Jacquard system of control by perforated cardboard (perfected in 1801 for the automatic control of cloth-weaving looms) was tried on several occasions by organ builders from 1850 onwards but the first practical system came from a Parisian builder of fair organs or dance organs, Gavioli. He replaced the cumbersome barrel of his big organs with a zig-zag-folded book of perforated cardboard which, as it unfolded and was drawn across the key-frame of his organs by rubber-covered rollers, allowed spring-loaded levers to rise up wherever a hole in the cardboard appeared, and be pushed down into line again when the hole passed on. This invention, made in or about 1892, dispensed with all the limitations of the barrel. It allowed music of any length to be played — short or long — and it allowed the organ owner to select each piece of music for his instrument and play it in any order he wished. The music was less delicate to store — with the barrel one had continually to take care not to damage the pins on the surface otherwise the music would be spoiled.

Music-leaf system

Imhof in Germany produced a version of this same system which was called the *Music-leaf* in which very thin but strong cardboard was perforated and then rolled on to large-diameter spools. This achieved a similar effect to the Gavioli invention.

Both the Gavioli and the Imhof system were still mechanical systems — the holes in the card were used to move metal levers which in turn opened or closed valves to allow wind to sound the organ pipes.

The use of perforated paper or card for a purely pneumatic control purpose, i.e. with no mechanical demands being made of the punched music, was the subject of experiments in France as early as 1842 when C F Seytre of Lyons devised an instrument called the *Autophon*. But it was not until the late 1870s that practical utilisation of perforated paper as a sliding pneumatic valve passed from being but a curiosity into a practical means of playing a musical instrument. J Carpenter in France, John McTammany in Massachusetts. and



Customed

This tune-sheet, shown full size, comes from a Nicole Freres box in the de Vere Green collection. It is numbered 28164 which dates it at about 1846. This is one year after Wallace's *Maritana* was premiered (tune 5 *Scenes that are Brightest*), and the year in which R W Keith died. He had founded the business in 1822 when he took over that of Giles Longman, successor to John Longman of Longman & Broderip fame. William Prowse joined in 1829 and died aged 81 in 1886. It is little realised today that Keith, Prowse & Co were actual piano manufacturers as well as agents for other instruments.

Merritt Gally of New York were independently responsible for this advance.

McTammany and Gally saw the perfection of pneumatic action as the key to making wind instruments operate automatically and initially their work centred on reed instruments. These small free reed machines were styled *organettes* and within a short while vast numbers were being made in America which brought music by perforated paper band or roll to the masses very cheaply.

After the invention of what we now call the piano by Cristofori around 1709, the early mechanical pianos, introduced as barrel-operated instruments around the period 1750-1770, tended to be *barrel fortes* rather than *barrel pianofortes* and it was not until comparatively recent times — 1815 - 1820 — that means were built in to the mechanism whereby a *piano* and a *forte* could be achieved. The mechanical piano developed along two lines. First there was the street instrument which was initially made in Italy and later taken up in England by a famous street piano maker in Bristol by the name of Hicks. These were very small portable pianos which could be carried around by itinerant musicians. One central leg was provided and to play the instrument, the performer rested the instrument on its leg, suported the case with one hand and turned the handle with the other. These were often very beautifully-made instruments and owed much in their design and realisation to the perfection then being realised by the street barrel organ.

Respectability

While the street barrel piano went on tour of the highways and byeways, the mechanical piano moved into the respectable household and a number of makers built superb barrel and finger instruments (i.e. for manual as well as mechanical playing). These are now considered rare instruments among collectors today.

Larger-compass street pianos, resembling more the familiar upright piano-forte, came into being about 1880 and these, although entirely made of wood (as was the ordinary piano-forte up to the 1860's), were too heavy to be carried around the streets. They were usually provided with two-wheeled carts and a pair of donkey-shafts between which either a man or an animal could stand. These pianos were almost exclusively manufactured by itinerant Italians who took with them the skills and practice of street piano building when they left their home country to settle in other parts of the world. For this reason, Italian street pianos in New York, London, Berlin, Stockholm, Edinburgh, Brussels or Moscow all carried the common trends of design and construction which at a glance revealed their delineage.

The barrel piano finally moved from being an instrument of the rough and tumble of the streets to being an instrument fit for use in a public place such as a bar, cafe, restaurant or dance-hall. Fitted with a large clockwork spring-driven motor, they reverted to being indoor instruments.

When perforated paper roll music was perfected, it was not long before the very first piano-forte to be played by this system was developed. The invention seems to have stemmed from Germany and America at more or less the same time, but it was the American inventor, Edwin S Votey, who produced the first complete and practical mechanism. He used a separate pneumatically - operated machine, which, when pushed up in front of an ordinary piano-forte, played upon it with felt-covered wooden fingers. He called this machine a *pianola* and, aggressively marketed by the Aeolian Company in America, he virtually swept the world with it. The Pianola was sold in all parts of the globe as a machine which would turn any piano into a self-playing or automatic machine. The date was 1897. The Aeolian Company then bought up all the patents it could and acquired under its one corporate roof all those inventors which it could buy. Among them was Melville Clark who managed to put all the component parts of the Pianola "push-up" or cabinet player, actually inside the case of an ordinary piano. By 1901, Aeolian was advertising "The Pianola Piano — The First Complete Piano".

Refinement

Over the years which followed, the pneumatic action was developed and refined into a remarkably sensitive and practical piece of engineering which was totally subservient to the first principle — that of music. As improvement after improvement came along — automatic sustaining pedal, expression or accent on certain notes, perfect pneumatic repetition, subtle shades of volume from *pianissimo* to *fortissimo*—so musical inventors looked to the ultimate. This was to make the automatic piano re-enact perfectly an actual performance by a real pianist. In other words, if a great and talented pianist were to be able to "record" a perforated paper music roll, could a system be devised whereby the roll could contain all the information needed to re-create that original performance on any other piano! Hupfeld and Welte in Germany, and Aeolian and the American Piano Company in America were among those who succeeded in fulfilling this challenging specification. The outcome of their work was a completely new type of player piano — this was the *reproducing piano.* Hupfeld manufactured its *Dea,* Welte produced the *Mignon,* Aeolian the *Duo-Art,* and American Piano Company the *Ampico.* These were just four of a number of similar inventions which could faithfully reproduce an actual performance without any human intervention. There were others, but these were the four which were the best known, with the last three being the commonest examples. Special music rolls which contained all the necessary data were produced and these operated a delicate musical computer which analysed the performance of virtually every note and made the piano mechanism impart just the right volume and intonation to each note.

Reproduction

The first to apply the perforated paper music roll to the pipe organ was Welte in Germany and by the late 1880s, the company's orchestrion organs were being operated by paper instead of the large wooden barrel. In the following years, Welte incorporated into the self-playing pipe organ many of the attributes perfected in the reproducing piano-forte. From special music rolls, the organ stops could be selected, the swell shutters operated, and all the functions of the manual organist usurped by pneumatic valves and motors. After Welte, Aeolian in America produced a similar mechanism for its reproducing pipe organs.

For a time, the majority of church organ builders offered pneumatic player mechanisms with their instruments with the advise that, even when a trained organist was not available, the player would allow music to be performed to perfection. Such a mechanism was built into the library at Blenheim Palace near Oxford so that the famous organ which the Duke of Marlborough had built for him could be played by a Welte cabinet

player when his organist was not in attendance. The player is still to be seen today.

The mechanical organ developed in another direction with the perfection in Paris by the Italian organ builder Gavioli of the show-organ, called variously fair-organ or dance organ. These organs which were intended to be enjoyed visually as well as listened to, were rich in carving and ornamentation, colourfully painted and, later, electrical illumination. These were intended initially to be barrel-operated although later almost every manufacturer changed to perforated book music on the Gavioli principle. One at least (Bruder in Germany) changed to perforated paper roll music. There are now many of these organs restored and in playing condition in various parts of the world. Only, though, in Holland and Belgium are they still to be found in play in the streets and only in Amsterdam in any quantity. Now a major tourist attraction which vies with the tulips and windmills, Holland's street organs have recently been protected by a law which prohibits their sale abroad.

Unconsidered Trifles

When taking a stroll through the late World's Fair at the Agricultural Hall, we notice that Messrs Arrigoni & Co had a couple of their orchestrions playing therein. The makers inform us that they have recently dispatched single instruments to Johannesburg and to Spain, whilst to the United States they shipped no less than sixty-three organs during the past year.

Musical Opinion, March 1894

Metzler's Maestro Pianoforte

When Solomon of old informed us that there was " nothing new under the sun ", his prophetic soul dreamed not of modern inventions. For instance, of the Maestro Pianoforte, a recital on which was given at Messrs Metzler's on June 26.

The Maestro Piano is not a mechanical instrument in the sense understood by those acquainted with the various piano players now before the public; it is a pianoforte to which is attached a mechanism worked by electricity, which records the performance of the world's greatest pianists, just as a gramophone records the voice.

The programme to which we listened with pleasure comprised a dozen masterpieces; and not only was the rendition of course " note perfect ", but one heard the interpretations of as many different masters of the key-board. The touch of Raoul Pugno or of Dóhnanyi, the phrasing of Carreno or of D'Albert the feeling of Scharwenka or of Busoni.

The management of the Maestro piano is most simple. After having duly placed a record in position, the pressing of switch puts the instrument in motion, and the record once played through rewinds itself, and when on its original spool the electric current is automatically switched off.

" Music while you wait " is now the order of the day; and this magnificent automatic pianoforte, of full compass, will soon be much enquired for. The records are on rolls of stout paper. The published list contains some thousand or so pieces of the greatest composers for the instrument, interpreted by the most renowned living players.

Musical Opinion, July 1906

One special instrument

At one time or another, every instrument of the orchestral or wind band has been automated. Since Leonardo de Vinci produced his study for an automatic kettle-drum, mechanical, electrical or pneumatic means have been applied to making instruments self-playing. From harmonium through to harmonica, trumpet to triangle — all have been automated. Perhaps the hardest instrument of all to play artificially is the violin, yet this was overcome by a number of inventors and two automatic violin-players were manufactered in considerable quantities. The Hupfeld company in Leipzig mounted three violins vertically above a reproducing piano-forte and played them pneumatically. In America, the Mills Novelty Company took a violin and tailored a special piano to it, playing them both electro-mechanically. Other instruments to have been automated include the harp, the banjo, saxophone and concertina.

Whereas all these instruments were automatic variants of instruments which could be played by hand, there was one instrument of mechanical music which only appeared as an automatic instrument, had a distinctive sound of its own, and had no manually-played counterpart. This was the musical box (Fr: *boîte à musique,* Ger: *spieldose,* Ital: *scatola armonica,* Span: *caja de musica*) which is claimed as a Swiss invention.

The music of the musical box is produced by means of a narrow strip of specially-tempered carbon steel which is set in motion in such a manner as to cause it to vibrate after the manner of the free reed. The earliest method of arranging a programme of music so that it might be played upon a scale of such tuned teeth was to provide a version of the miniature carillon barrel made of brass and studded with short projections. As this cylinder revolved through the action of clockwork, the pins would engage the correct tooth tips, lift them, and then release them, this plucking action being sufficient to produce musical sound.

This style of mechanism, known as the cylinder musical movement (named after the cylinder as a source of musical programme) was a direct development of the clock carillon and there is some evidence that it dates back to around 1750. However, the accepted date of the invention of the Swiss musical box comes with the invention in 1796 by one Antoine Favre of a miniature " carillon without bells " for use in watches, small *objets d'art* and similar miniature pieces of jewelry. Some of these very early movements were extremely small and, although the music played was somewhat primitive, they would fit inside, for example, watch keys, seals and pocket watches. In the early years of the 19th century, Piguet et Meylan produced a style of miniature musical movement in which the cylinder was replaced by a small disc whose surface was studded with pins. These plucked individually-made and separately-attached single teeth arranged radially around the disc. Some of these movements were no more than 6mm in thickness and they were used in watches and snuff boxes in addition to other *objets d'art.*

By 1810, large musical movements were being produced for fitting inside the bases of clocks and, by 1815, movements with cylinders up to 15 inches in length were being produced. Soon afterwards the single musical teeth gave way to a one-piece comb-like assembly of teeth and, although separate teeth and combs made sectionally with groups of teeth were in use until the 1850s, by 1820, the musical box had begun to take on the final form which was to stay with it throughout the rest of the century.

Music interpreters

As a means of interpreting the music of the period, the musical box was without equal and today musicologists are rediscovering much music which has been lost in subsequent years, yet lies preserved as the pinned surface of a cylinder in a musical box.

Musical boxes grew larger, more ornate and more complicated as the century progressed until, by 1850, the industry of the Jura Valley in the Jura Mountains district of Switzerland had all but petered out as the centre of activity moved to Geneva. By 1840, a major musical box industry had sprung up in France close to the Swiss border.

One of the major limitations of the cylinder musical box was that it only played the repertoire of

music with which it had been pinned at the time of its construction. One solution to this had been the provision of musical boxes with interchangeable cylinders so that when the owner had tired of one cylinder with its repertoire of six or eight tunes, he could replace it with another from a drawer full of spare cylinders provided with the musical box. Still, the replacement cylinders were expensive.

Disc revolution

Paul Lochmann in Leipzig in conjunction with Ellis Parr in London was the first to give practical thought to whether or not a musical box might be made on a different principle dispensing with the cylinder. The outcome was the disc-playing musical movement, in the mechanism of which the musical combs were plucked by a device operated by projections on the underneath of a thin sheet metal dics. This was in 1886 and within four or five years, the Symphonion musical box—the world's first mechanism for playing interchangeable metal tune discs—was in production in Leipzig. It was an immediate succes. Within a year, Gustav Brachhausen had started the rival Polyphon factory manufacturing a similar style of instrument and, within a few short years, a number of other makers had introduced their own versions of the disc-playing musical movement. Naturally, this development had a serious effect on the Swiss industry which countered initially by a drastic lowering in the quality of its products and, finally, by producing its own disc musical box. However, Germany by now reigned supreme in the technology of the new-style musical box.

Brachhausen subsequently went to America where he set up the Regina Company in Rahway, New Jersey. This was the first of a small but important number of American factories which formed the American musical box industry. Indeed it was in the New World that, as the century drew to its close, some of the finest disc musical boxes ever made were produced.

The dics musical box soon began to fall victim to competition from the burgeoning phonograph with its unique ability to reproduce that most elusive of all sounds — the human voice. By the early years of this century, the musical box industry in Switzerland and Germany was running down in the face of competition from the phonograph on the one hand and the improved mechanical orchestras (piano-orchestrions, player violins and orchestrion organs) on the other. Added to which, the player piano was approaching its peak of popularity.

The war of 1914-18 finished off the matter and by the time hostilities had ceased, wireless and the gramophone were so much a part of life, and the player piano was enjoying ever-widening popularity, that the musical box was finished. However, it continued to be produced in miniature varieties for the manufacture of novelties. It had travelled from being an accessory to another object, as it was in the beginning, through being an honoured musical interpreter, back to being little more than an accessory again.

The Swiss musical box industry today has moved with the times and now a small but thriving production continues in factories such as that operated by Reuge which has the largest share of the market.

Music for mechanical musical instrument

Many composers have written for mechanical instrument. These include Leopold Mozart, Wolfgang Amadeus Mozart, Beethoven, Joseph Haydn, Cimarosa, Hassler, Erbach, Kerll, Handel, Carl Philipp Emanuel Bach, Eberlin, and Dandrieu who all wrote for mechanical organ.

Among composers who wrote music expressly for the player piano were Moszkowski, Malipiero and Stravinsky.

Of all the music composed for mechanical instruments, W A Mozart's three pieces for mechanical organ, K.594, K.608 and K.616, remain probably the best known. Next must come the 32 pieces which Haydn wrote for the three organ clocks built by the court librarian to Prince Nicolaus Esterhazy, Primitivus Nemec.

The Ingenious Vaucanson

by John Lestock

I WAS interested to read the chapter extracted from R L Brightwell's book in the Autumn 1976 issue of this magazine and thanks must go to Jack Tempest for submitting this.

I find Mr Brightwell's account of 1859 surprising. Surprising for what it contains, surprising for what it does not contain and still more surprising for the conclusions that are drawn. In fact, as a life-long admirer of de Vaucanson I feel the statements made should not remain everlastingly unchallenged. Alas, pauvre Jacques was not alive to read what Mr Brightwell had to say about him any more than Mr Brightwell is able to read what I am going to say about *him*, more than a hundred years too late, in fact. Like the Editor I am keenly concerned with the refocussing of blurred history in cases such as this.

The article contains a number of homely insights into the life and childhood of Vaucanson which suggests that some biographical material has been consulted which is unknown to me at this time. His charming description of little Jack espying a clock mechanism through a chink in the wall is very reminiscent of the boyhood of James Watt and the incident with the steaming kettle. Very romantic.

We are told that Vaucanson was an inspector of silk manufacturers and was able to employ his skill in mechanics to such effect in improving methods of preparing silk that his efforts were "crowned with success". He had a rare talent for clearly describing machinery and formed a collection of machines which was dispersed some time after his death. Vaucanson made an unusual model demonstrating the circulation of the blood and a number of automata including a "baby-house chapel" with moving figures, a hissing asp and a weaving ass as well as a small figure playing the flute, a tambourine player, two geese which pecked up corn, and he also discovered a method of imitating animal digestion.

Having built Vaucanson up in this manner to the point where his efforts were "crowned with success" Brightwell finishes his account by letting him down with a bump and "regretting that the great skill displayed by Vaucanson was not more usefully directed . . . and will never suffice to perpetuate a man's name . . . . whereas the inventor of a Jacquard loom will

never be forgotten . . . . "

Really, Mr Brightwell ! It is your closing comment which has finally prompted me to set the record straight as far as possible.

Jacques de Vaucanson was a French engineer who achieved fame in *several different fields* of engineering[1], fame which is recognised and recorded today and sufficient to perpetuate his name. Although it is nearly two hundred years since he died, almost any major work on the history of technology will contain reference to him and it is most unlikely that there will be any mention whatsoever of his automata until a specialised work or popular account (like Mr Brightwell's ! !) is consulted. Thus, Derry and Williams in their *Short History of Technology* credit Vaucanson's loom as forming the basis of the later Jacquard[2] as well as speaking of his advanced machine tools whilst the major definitive work in five volumes by Singer *et al*[3] contains yet more references and plate 8A is a photograph of his loom.

Felkin, a contemporary of Brightwell writing in 1867 on textiles[4] includes mention (albeit brief) of the Vaucanson loom and " Vaucanson's chains " (apparently some connection with textile machinery and the inventor's chain-making machine which was far in advance of its time[5]).

Vaucanson's loom was too complicated, as it stood, to be a success. His lathe c1775, although a bit of a puzzle in some respects, was a beautiful machine incorporating features then novel but commonplace today[6]. Likewise his drilling machine.

From 1770 to 1780 Vaucanson was one of two royal commissioners appointed by the French government to examine new machines and inventions — an office he pursued most energetically. The workshop in his own house l'Hôtel de Mortagne contained no fewer than 60 machines of his own invention at the time of his death in 1782, After this it became a subsidised royal establishment and by 1795 contained no fewer than 155 items[7]. Of the contemporary dispersion of the collection I have seen no evidence. Some of his machines are today in the Conservatoire national des Arts et Métiers, Paris.

Vaucanson is also credited with being the first person to use a rotary cutter of industrial size[8].

But what of Vaucanson's automata ? His flautist, pipe and tabor player and duck are well known. The flute-player was life size upon a pedestal 4½ feet high. Brightwell says a small figure. No, it could not have been another android "since infallible sources prove that Vaucanson built no other human figures "[9]. There never has been a more famous automaton than Vaucanson's duck[10]. Some time in the 1840's the duck passed through the hands of the celebrated French mechanician and prestidigitator, Robert-Houdin and one can only assume that Brightwell borrowed his magic wand and put it to use, for Brightwell was able to transform this renowned and digestive duck into *two geese !* It is almost with reluctance that I give him the " tambourine-player " since Prof Chapuis and M Droz also speak of it as a tabor and tambourine-player[11]. None of the contemporary engravings suggest the figure plays a *tambourine* and one hesitates to question eminent authorietes but perhaps Sir David Brewster points the way to a solution in his use of the word *tambourine*[12].

Now Mr Brightwell what have you to say ? A final question for you. Thinking so little of Vaucanson and his achievements (and yet so ill-informed) why did you devote a chapter to him in *Heroes of the Laboratory"?* Let us hope the remainder of your book is free from gross inaccuracies.

There's a lesson for all of us here.

Le 14 juillet 1886, à deux heures après-midi.

No 1624.

Charles Ullmann, fabricant,

Auberson.

Ch.U

Ebauches et rouleaux en métal d'une pièce à musique nommée „Multiphone".

Le 14 juillet 1886, à deux heures après-midi.

No 1625.

Charles Ullmann, fabricant,

Auberson.

Boîtes à musique.

Concerning the article on page 300 of Volume 7 on the subject of Charles Ullmann, Pierre Germain in Geneva has located the documentation referring to the registration of the two Ullmann marks. It will be seen that one of these is also associated with the Multiphone which was patented in the UK in the name of John Manger (British Patent number 2241, February 16, 1886). The Multiphone was an interchangeable-cylinder manivelle and at least two specimens are known — one in the Mickleburgh collection (the subject of the article on page 60-61 of Volume 3), and one in the Moltzer Museum, Bennekom.

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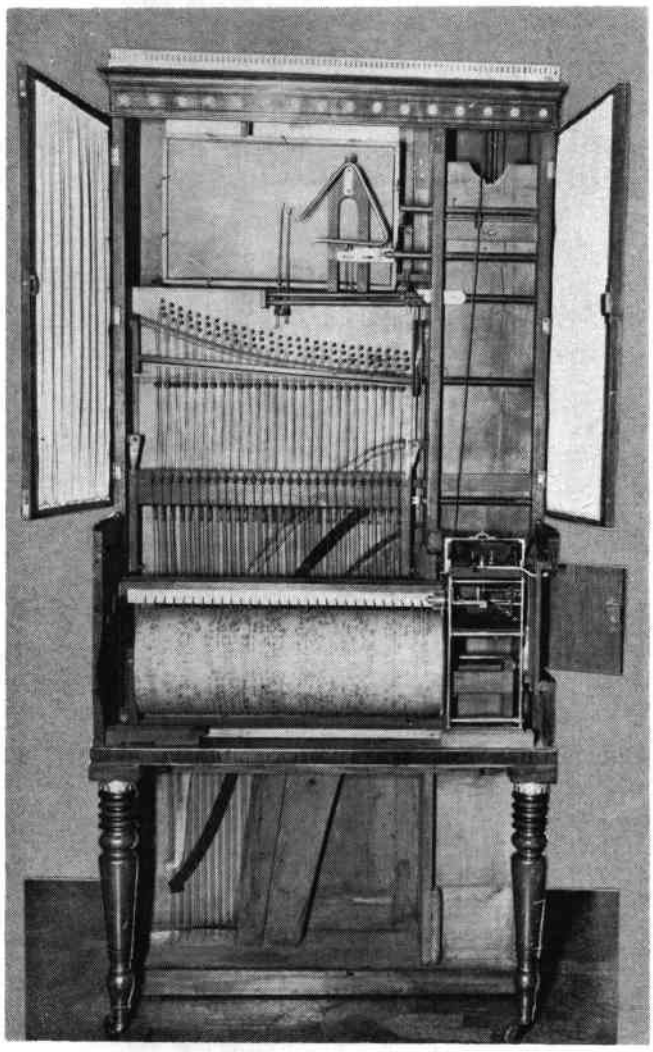
SELF-ACTING PIANO

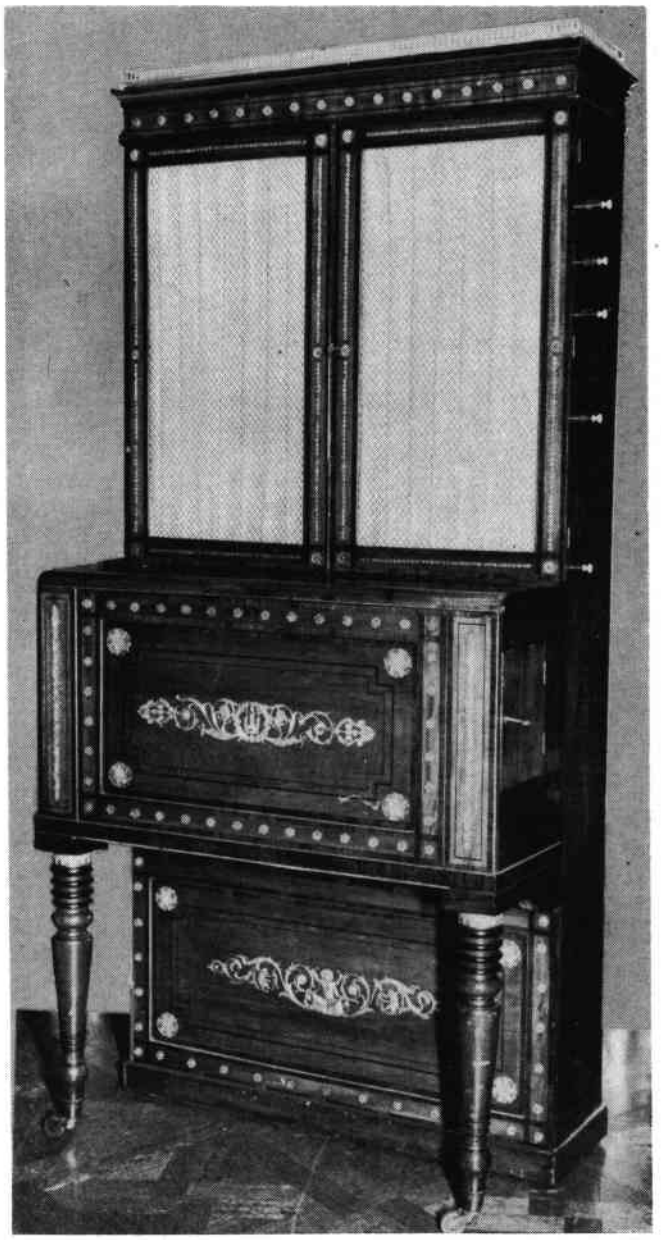
ONE of the most interesting and attractive instruments in the de Vere Green collection in this unusual barrel-operated vertical grand piano.

There has, over the years, been much controversy between collectors and furniture experts who have examined the piano both as to its date and to the authenticity of the two front legs. These legs are, according to the furniture experts, not in keeping with the rest of the instrument and must therefore (so they say), be later additions.

On top of this there has always been some doubt as to where it was made, a doubt resolved in the minds of some by the French Empire-style decoration of the casework and also by the presence of some very faint writing in pencil which was undoubtedly in French. This writing was found on the small detachable block of wood used to locate the left front edge of the barrel carrier in the case. It is clearly visible in the picture below as the darker horizontal piece of wood in front of the barrel carrier above the left leg.

First let us consider date. The first person to move the wrest plank from the bottom of the piano to the top in an upright grand was Isaac Hawkins in 1800, so this confirms that the piano we are looking at was made after that year. The era of the upright grand as a normal finger instrument extended until the 1820s,





so this places the instrument in a bracket of about 25 years — from 1800 to 1825.

Next what about those legs? An examination of ordinary finger pianos of the time shows that these legs were not only perfectly common on square pianos, but were also to be found on uprights. An upright grand with similar legs is shown on page 13 of Michel's *Historical Pianos,* and again as plate 19 of David Wainwright's *The Piano Makers.* The presence of these legs is thus not only perfectly in keeping with the style of the instrument, but they are quite contemporary and therefore most likely to be original. They could, furthermore, be taken as a measure of evidence that the maker also made square pianos.

The style of case decoration looks French and the possibility is that it was originally in that country. The applied decoration, which includes gilded wire net for the pleated silk door screens, may have been a later addition.

The clockwork demonstrates no clear signs of origin or date. The vertically-mounted central governor fan with angled blades, as found on musical box governors, is French in style as is the method of automatically giving the endless shaft an impulse to start it moving (by use of a small lever). Although these characteristics are found on European instruments, they also feature on London-made barrel and finger pianos at the end of the 18th century.

At the side of the case, on the right-hand flank, can be seen five stop knobs. From the top downwards, these are: (1) drum piano or forte (achieved by moving the square-framed drum closer to the two beaters or further away); (2) triangle on or off; (3) drum on or off; (4) sourdine (a frame carrying a strip of thick felt is pressed against all the strings between the agraffe and the hammer heads when the *sourdine* is applied, so muting the sound); *piano* and *forte* (the hammers are attached to the keyframe tails by threaded wire adjusters and this allows the carrier holding the pivot for all the hammer butts to be moved bodily sideways. In the normal position, the hammer strikes the full trichord for each note: when *piano* is selected, the hammers only strike one string).

Driving power for the barrel comes via a broad motor pinion which engages with a narrow brass wheel screwed to the right hand end of the barrel. The difference in thickness allows the barrel to be shifted to play its programme of eight tunes — all dances. A heavy weight provides the motive force. Wound using a large handle, it travels up a boxed-in compartment behind the motor.

The piano itself plays 28 notes in trichords. The casework is in solid mahogany.

As for the French inscription on the barrel retaining block, during a visit to view the piano last autumn, a member of the AAIMM, an acute-eyed young lady, succeeded in reading the message. Here is her transcription of this partially illegible text:

"Pour retirer le cylindre lachez le verrou de la .... et puis retirez la petite porte de bois et tirez le cylindre .... (perhaps the date — the last word is "June")".

While searching through some copies of the British magzine *Musical Opinion,* the Editor found an illustration of an almost identical piano along with the follow-text:

"Here is depicted one of the most rare piano-fortes that it has been our good fortune to unearth. It stands 6ft high, and Messrs Strong & Jackson are the owners. The music is obtained by barrels (worked by a weight), of which there are three, each having eight tunes. The instrument, which is a trichord, consists of three octaves, with a few chromatics. At the top right hand corner are placed five stops: one being for the celeste, another for the forte, a third to make the two drumsticks act upon the parchment, a fourth for the triangle, and a fifth causes to sound the notes of the cuckoo, which are produced by means of a small bellows and reeds. This arrangement is not shown in the illustration, but is located on top of the triangle. The imprint on the piano is that of "J. Longman; patent; 131, Cheapside". Messrs Strong & Jackson think that this maker must have been the predecessor of Messrs Longman, Broderipp (sic) & Co., and, going still further back, of Messrs Longman & Co. The case is in mahogany, inlaid, and there is a handsome ormolu gallery. At the time of our visit, the instrument was in tune, though of course not quite up to the ordinary English pitch. Those of our readers who would like to see this old time piano should call at 12 Upper Marylebone Street, near Howland Street, Tottenham Court Road". (*Musical Opinion,* number 218, November 1895, page 127).

The company mentioned in this text, Strong & Jackson, was etsablished in 1889 as dealers in second-hand instruments. By 1909 they were at 54 Upper Marylebon Street, Great Portland Street which address they maintained until the First World War during which the company closed.

Do any other pianos of this type exist? Yes There is an instrument similar in many details to the de Vere Green specimen in the Guinness collection in New York. This one is marked "John Longman" quite clearly and a comparison of the pictures of this one (reproduced here) along with the illustration in *Musical Opinion* referred to above show these as being so similar as to be virtually identical

What of the cuckoo? A strange accompaniment for the piano and percussion! I believe the "stop" which *Musical Opinion* thought to be a "cuckoo" to be nothing of the sort, but a normal tell-tale of the type common in orchestrions where, as the weight was wound up and as it approached the top of the case, it compressed a small bellows to produce a sound as an indication to the winder that he had achieved his aims.

continued on page 50

A CODE FOR RESTORERS

Considerations in the restoration of mechanical music and a general code of practice

by John L Hammond

RECENTLY in this journal your Editod has taken a restorer to task for exchanging musical box movements, cases and tune sheets so as to make the best-looking combination.

And Keith Harding re-published the text of his talk *The Ethics of Conservation* in our journal, again very recently. With increasing frequency member's letters refer to problems connected in some way or other with restoration..

" Conservation " is an " in " word at the present time and there are would-be conservationists everywhere—people (not always particularly well-informed !) who wish to preserve our environment, our wild life, our old buildings and so on. However museum technicians and other craftsmen have been practising the conservation of antiquities of every kind for many years. Here, for our purposes, we are concerned with man-made articles, in particular mechanical musical instruments, automata and allied devices. Unfortunately the need for preservation, or conservation, of any particular thing becomes recognisable inevitably, it seems, late in the day (would that we could forsee it !) — almost too late — when the bygone really has become both a bygone and a rarity, when an antique is just that .....

It can be argued that, in any event, it is now too late to introduce codes of practice but the writer with ebullient optimism believes it is *never* actually too late.

The execution of a proper standard of restoration is the result of the honest application of craftsmanship, knowledge and experience. It may well be then, that integrity in matters of restoration, to some extent, has to be acquired, even learned; but as knowledge teaches what is right and what is wrong, for most of us (with the interests of the articles themselves in mind and having no desire to be deliberately deceitful) integrity would follow from this learned awareness. Similarly, skill, knowledge and experience are necessary in order to properly appraise and appreciate the quality of a particular piece of restoration carried out by some other person.

However, the prime purpose of a mechanical musical instrument or allied device is to play music or to work in some other way. If it is defective and does not work properly then it can be subjected to: *repair* ie " mended " and made " to work " without any reference to a maker's characteristics, for examples; or *restoration* which indicates rather more in that the repair will be carried out to the same standard we attributed to the particular original maker. But *conservation* however, implies that the fully restored article will continue to be maintained and preserved.

The owner or " k e e p e r " is closely concerned with conservation. The restorer's interest declines once the article has left his hands. Restoration, strictly may be " good " or " bad " (though there are many shades of " in between ") and poses many problems. Here are a few examples mostly culled from back issues of this magazine or seen at meetings :

Bed-plate of L'Epée cylinder muscal box gold plated. Looked beautiful. Nevertheless " bad " restoration, an example of over-enthusiasm or "over-restoration".

Nickel plated tooth inserted in plain steel comb (told to me). Comment unnecessary !

New finishing chord pinned on organ section of cylinder box. A fine achievement. To so " improve " on an original, however, is once again " bad " restoration.

Two bladed governor fan converted to four blades on very fine early R Nicole overture box which played too fast. The modification had the desired effect. " Bad " restoration ? Not quite. In this instance as the owner had clearly thought about it and carried out the modification in such a way that *it could be removed at any time* leaving the escapement as original. My only comment, how could this replacement be recognised ?

Orchestrions &c. converted to, say, modern electric motor drive from some other source of energy. I know this bothers quite a lot of members. On the other hand the prime object of the machine is to play and (were it not for principles of restoration) it would seem quite a sensible way to replace a falling weight, hot-air engine or even wearisome hand-cranking. What again if the modification were made removable? But how would we recognise the fact ?

Fitting substitute parts or units from other articles of the same class, eg Ami Rivenc ("Dawkins") escapement c o m p l e t e with " sphinx " emblem on governor cock but fitted in Bremond cylinder and works well. Basically " bad " restoration, but the box has been made to work — it's prime purpose — but how can we convey the fact that the escapement is an alien replacement ? One way would be to remove the mark, but then the escapement, certainly the whole shape of the cock, is alien in style. How could we convey all this information, perhaps we could leave the sphinx on and mark it in some way ?

By this time perhaps some of my readers will agree that pure integrity in matters of restoration has, in part, to be acquired or learned and many of us can possibly recall things we have contemplated doing, or even done in the past that we would now consider to be bad practice.

Furthermore, parts made today to replace broken or missing pieces, although made in the best of good faith may not be a match for the original pattern as some makers show an inconstancy of style eg with cylinder box winding levers and finger-grip. In addition the modern replacement materials are likely to differ in colour or composition from the original. There must therefore be some little degree of flexibility in the adoption of any standard code of restoration crafts, in the interests of the articles themselves, so as not to unduly impede restoration generally. Materials apart, this also applies to the style of the part produced. For example, take " escape " or worm-wheels. Although at least sixteen basic types are immediately identifiable,

modern restorers frequently make these with teeth cut at an angle (to match the helix of the "endless") for escapements that never had that type in the first place. Then again re-pinning cylinders with pins set radially and not set or angled as is usual in the original.

Repairs carried out in these ways (like the use of modern materials) would be better exactly as the original from the purist's viewpoint but I think we must accept these modern methods. Again, where size and material permit, perhaps we could mark the parts in some way ?

Finally, if we could devise some method of marking repaired or renewed parts there are certain expendable items that would probably need renewal during the normal life of the device anyway and, strangely enough these are often parts that would be difficult to mark — violin or piano strings, mainsprings, weight ropes, glass, small springs, mainsprings, ceramic parts, comb teeth, possibly cylinder pins etc, etc, and we might even include polish, varnish, paint and oil ! Although these should be marked whenever possible, it is not so essential.

Of course, everything could be recorded in individual "log books" or on comprehensive indexed record cards. In any event this is an idea worth pursuing although no doubt such systems are adopted by museum curators and meticulous members of our society possessing large collections, nevertheless it is not quite what I had in mind. . .

Some years ago I had the idea that a very suitable, inoffensive way of marking repaired or renewed parts would be to use the letter "R" as it begins so very many relevant words such as *R*estored, *R*epaired, *R*eplaced, *R*enewed, *Re*-cased, *R*enovated, *R*eproduction, etc.

The list is almost "endless" !

This is equally true of many languages such as (quoting the verbs):

English :	*R*epair
Francais :	*R*habiller
	*R*éparer, *R*estituer.
Deutsch :	*R*eparieren
Espanol :	*R*eparar
Italiano :	*R*iparare
Hollands :	*R*epareren

(The French verb *Rhabiller* is quoted in preference as this is the term used by French-speaking horologists).

Moreover, there are few makers in our field of study with initial letter "R" and then none use a plain "R" to sign their work as far as I am aware.

To be roughly in keeping with "our" period I have chosen a Roman "R" pattern similar in style to alphabets used on British Line-engraved Postage Stamps from 1840 to c1860. A suitable punch for use with cylinder musical boxes would strike a letter about 1/16in or 1·5mm.

When correctly used the "R" mark would mean:

> "The part is not original or has been repaired and may be disregarded when assessing the original maker's material or style during expertisation of the article. On the other hand as a craftsman working to a Code of Practice I am proud to indicate that I have carried out the repair in good faith to the best of my ability as a match for the original in pattern, performance and substance within the limits of modern knowledge and the materials available to me".

It could also serve to demonstrate to a client some idea of the work that had been carried out and under rare circumstances even be a safeguard to a restorer as evidence that there has been no deliberate intent to deceive.

The basic idea of the Code of Practice occured to me and I had some punches made some years ago, but in printed form it was only finalised just in time for presentation at the recent Birmingham provincial Meeting at which copies were handed out. Unfortunately, owing to mis-judgment on my part it was not properly introduced. I hope this deficiency has now been made good although I am fully aware that this has developed into a somewhat wordy essay on this wide and important subject which is not without controversy. Certain omissions have been made on purpose (although many potential questions will be found to have an answer implied in the Code itself which is largely self-explanatory) and it may well be that some correspondence will be stimulated in our columns. Members who would like "R" punches or further copies of the Code should contact me.

The Hammond Code of Practice

The Restoration and Conservation of man-made Antiques, Bygones and Works of Art
(with special reference to mechanical Bygones)

The Law of the Conservation of Antiquities says:

"Antiques cannot be created but are readily damaged or destroyed".

It is also said that an owner is only the temporary custodian of an antique or work or art. Properly cared for, such things will outlast many owners.

All having the care of such articles should follow the general principles of conservation as outlined below.

All Owners and Users

The articles should be propely stored out of harm's way and, wherever possible, in an atmosphere considered suitable by prevailing expert opinion, taking special precautions as necessary (eg use of fungicides, insecticides, corrosion inhibitors, away from direct sunlight, conditions of controlled humidity etc).

Keep your antiques clean and regularly maintained but know your limitations in this respect, leave well alone and if need be, take them to a specialist expert from time to time for examination and overhaul every one to five years, depending upon the article.

Do not ask or expect a restorer to permanently "improve" an original beyond its original appearance or performance or imitate a maker's mark upon an alien article.

Remember that restoration is very time consuming and although there are certain limitations to the accomplishments of the most skilled restorer he can, nevertheless increase the visual appreciation, performance and value of an article.

Mechanical Devices should be used in accordance with the maker's instructions, where available, and operated from time to time but never left for long periods under full mechanical tension, connected to any source of energy or run down part way through a mechanical cycle or musical piece.

All loose, separate, spare (or even broken) parts, keys, cylinders, discs, records, instructions, storage cases etc. should be kept within the article itself or, where this is not possible, labelled and positively identified with the parent article, which itself should contain a reference to the location of its parts. Such parts and any relevant information should accompany any article sent for restoration. It is sometimes difficult to judge the shape or function of a missing piece.

Repairers, Restorers

Take every care of articles en-

trusted to you and remainder of owner/user code applies as if you owned them yourself.

Your aim is to restore the original style, pattern, size, substance, standard of finish and performance of the whole article, or part, as far as possible within the limitations of present day knowledge and the materials available. Over-restoration should be carefully avoided and where appropriate (eg on age-old furnishing items), the patination time has bestowed should not be destroyed in re-finishing, neither should any original maker's markings be removed.

Thus, original parts should always be re-worked in preference to replacement whenever possible. There is a responsibility to return or offer original defective parts to the owner after replacement.

Any temptation to improve upon an original or imitate a maker's mark should be resisted.

Mechanical Devices

Modifications to " improve " performance or modernise motive power should be so carried out as to be readily removable leaving article as originally made whenever practicable.

Application of Repair or Modification Marks

Aim at perfection take pride in your work and, except for very small parts and expendable items (eg small springs, glass), mark any modification or replaced parts with an approved mark, clearly, but neither hidden nor necessarily obtrusive. As the purpose of the mark is to avoid subsequent errors of authentication then where a replaced part bears an alien maker's mark, the replacement mark is made over or adjacent to it.

Recommended Marks

Any approved mark should be in keeping with the article, not likely to be confused with a maker's mark, permanent and as universal as possible in its application. The restorer may scribe his own reference near the approved mark, if he wishes.

A punch mark is suggested by this code in the form of a Roman " R " not smaller than 1/16" or 1·5mm. The punch to be suitable for marking steel, brass and softer materials. Marks such as " re-cased 17.6.71" may be pencilled on wood. The letter " R " is chosen because it stands for " Repaired ", " Restored ", " Replaced " etc, and this property of pre-fixing words of suitable meaning is common to many languages and the possibility of confusion with known maker's marks is remote indeed.

Researchers and Craftsmen

Record your findings and special methods. By all means profit from your innovations. Legally protect them, when applicable, if you so wish but in the interests of the articles themselves publicise your knowledge at some appropriate time for the benefit of all.

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Find this clock!

SOMEWHERE there exists an organ and dulcimer-playing long-case clock with only half its programme of music! Member R J Rumble of the Treasure Chest in Taunton, Somerset, writes as follows :

I have in my possession a brass barrel measuring 1' 1½" × 6 5/16" dia which is the second one belonging to the clock shown in the enclosed photograph. The clock was sold some years ago by a friend of mine who feels sure it should still be in England. The reason for me writing to you is to ask if you could publish the enclosed details in the Musical Box Society Magazine hoping to find the owner of the clock, who, I am sure, would give his right arm to acquire the second barrel. It does seem a pity that the two should have been separated over the years.

I have bought the cylinder which is in perfect order and hope that the owner can be found.

If you would like the full details of the clock and its history, you could contact my friend who is a clockmaker of some repute, his name is Charles Harvey, 87 Torquay Road, Paignton. Telephone : Paignton 556712.

He has provided a transcript of a letter and answer which appeared in the magazine Country Life on March 9, 1945. This concerns this actual clock and is from the hand of a one-time owner. This is reproduced here as follows :

A musical long-case clock

I should be grateful for information on the maker of the musical long-case clock shown in the accompanying photographs; and also to know whether any clocks with a similar lay-out are known to exist. It is engraved on a side-plate:-

FECIT I. MORTIER GANDAE Ao.

From the facts that the date has not been filled in, and also that a second pin drum has not been completed, it seems probable the maker died before finishing the work. In 1910, a previous owner instituted enquiries through a Monsieur Paul Bergmans, of the Inventaire Archeologique in Ghent, who reported that, after extensive research, he found there had been clockmakers in Ghent of the name of Mortier from the eighteenth to the end of the nineteenth century. A directory for 1775 gives three Mortiers, but only the addresses, without Christian names or initials, are shown; Bergmans concluded the clock was made by one of these, as its known history starts with it being found by an Englishman in a house in Boulogne the year after Waterloo. It is not recorded whether Bergmans attempted to trace other clocks by this maker.

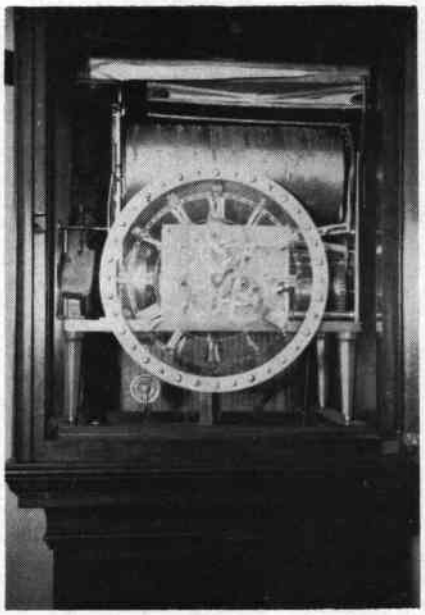
The clock plays on what is described as a harpsichord, with accompaniment on a small organ. There are six tunes (thought to be Belgian folk songs or dances), one of which is played immediately before the hour strikes. The tunes are either automatically changed after each hour, or can be kept at the preferred one indefinitely; they can also be played continuously, with or without the automatic change, irrespective of the time mechanism. In the illustrations, I have shown the mechanism without, and also with, the pin drum, but, for clearness, without the glass face, which, however, shows in the view of the

complete clock; they show the double-action bellows on the top, the organ pipes behind, and, just discernible below these, the hammers which operate the "harpsichord", which is separately illustrated.

Apart from the musical side, it has a fine movement with the usual recoil escapement, and shows the days of the week and the dates of the month on separate circles on the glass dial. It strikes the hours only, through a rack striking gear.

The clock was in a doctor's family, whose family had it for some years in a curio shop in the Strand until about 1880, when it was given to a well-known surgeon who collected antiques, especially old clocks. It was returned to the doctor's family in 1929, and afterwards sold with the rest of his effects. About the time of the outbreak of this war, a wealthy American arranged to purchase it from the then owner to send to America, but died suddenly before the transaction was completed". — J F H BURTON, Holly Bush, Little London, Basingstoke, Hampshire.

Musical clocks of this type with mechanism that plays tunes on an organ are by no means common, but, judging from extant examples to be seen in pre-war days on the Continent, a number must have been made in the eighteenth century, especially in Germany. It is unusual, however, to find one of the same quality of execution and elaboration of design as Mr. Burton's interesting clock by Mortier. No mention of this maker appears in any of the published works which give lists of Continental clockmakers.



The photographs of the clock are indeed very tatty snapshots and are able to do scant justice to this piece. What they do show is a clock which bears a striking similarity to another clock whose provenance is fully established. This is the clock made in 1780 by Peter Kintzing of Neuwied and at present in the Conservatoire des Arts et Metiers in Paris. It is illustrated on page 48 in Section Z of the 1960 edition of the Museum catalogue. The same piece is shown as Plate 60 on page 74 of Chapuis' *Historie de la Boite a Musique.*

The points of similarity are the arrangement of the bellows and feeders on top of the barrel — a characteristic which differs from the Black Forest type of movement usually found in which the bellows are behind or under the barrel.

Both the Kintzing clock and the Mortier feature organ and dulcimer. Kintzing's piece has three barrels.

Organ connection ?

What is there to be learned about this clockmaker with the seemingly familiar name of Mortier ? Well, first we can dispel from our minds thoughts concerning Mortier the dance-organ-builder. He was to come very much later than the Mortier with whom we are concerned. However, at this stage we cannot rule out the remote possibility that there might have been some connection. But Theofil Mortier of Antwerp was probably eighty years after the Mortier who built this clock.

Another example

Well, I can reveal that another Mortier clock exists. Like the one referred to above, it is a combined dulcimer and organ clock, but, unlike the former one, this one is not in its original case. The instrument is preserved in the Guinness collection in New York. It bears the engraved mark "L. MORTIER, GANDAE A° ".

Is this the same Mortier ? Is "I" a misreading of "L" ? Or is this a single representative of a product of each of two different members of the Mortier clockmaking family ?

So here are two mysteries. First there is a clock to be found somewhere in England, the repertoire of which can be doubled to the undoubted delight of the owner. Then there is some history to be unearthed on the Mortier clockmaking family. Are there, one wonders, any further examples of this maker to be found ?

Polyphon-tronics . . .

" REMEMBER your first thrill on hearing a musical box ? Remember your disappointment when the reeds broke ? Now you can recapture that authentic Polyphon sound for yourself or your family knowing that there are no reeds to fail and, with a little practice, you can create and play your own tunes ".

So ran the somewhat unusual advertisement in the hi-fi papers during December. The subject ? A box of electronics the construction of which was featured in articles appearing in the January and February issues of the British magazine *Practical Wireless* published by IPC. The author/inventor, M J Hughes, says that Polyphons have brass discs and says that those which find their way into antique shops " can fetch prices of several hundreds of pounds ".

This electronic thing turns out to play 12 notes and to operate on a binary code so that, like that cheap pocket electronic organ which you play with a metal prod, this so-called " Polyphon " is anything but polyphonic but is exactly the contrary — it produces monophonic music and so should surely be called a Monophon.

Nevertheless I have no doubt that this device, misnomer and all, will produce hours of fun for the narrow (musically) minded electronic whizz-kid.

Stolen . . .

WE are advised by Keith Harding that four musical boxes have been stolen from a collector in South-West London. These have all been overhauled by him and his descriptions are as follows : (73081) 4-air, 5½in cylinder, lever-wind, plain case, number 30160; (73082) 6-air, 8¾in cylinder, key-wind, plain case, numbered 22024 with re-pin number 304 scratched on cylinder end; (73089) 6-air, 7in cylinder, lever-wind, numbered 410, with iron bedplate and the letter "J" on the right-hand cylinder bridge; (76266) 8-air 11½in cylinder. The number in parenthesis is Keith Harding's workshop job number which may appear in the bottom of the case under the movement. Any person having any information on these items is asked to contact Keith Harding on 01-607 6181.

BARREL ORGAN REDIVIVUS

Part 3
Barnston Parish Church

by Roger Booty

SO far in this short series, we have looked at organs which have been restored. This time, *redivivus* has yet to come as the author finds a derelict in need of succour

OUT on the marshes of east Essex, beyond the village of Bradwell-juxta-Mare, there stands the 1300-year old chapel of St Peter-on-the-Wall. The second oldest Anglican Chapel in England, it now survives remote near the sea wall, with a small wildfowler's cottage crouching beneath the sea wall as its nearest company. Quiet churches left behind by their villages as they moved nearer to turnpikes, are not uncommon in Essex and they sometimes stand, like St Peters, alone amongst fields.

The small parish church at Barnston in the centre of the country is also remote. Not so much as St Peters perhaps, but it is a half mile outside the village centre on a quiet bye road leading off the A130. It is, in fact, only about a mile and a half north of the Black Chapel about which I wrote on page 276 of Vol 7.

From the time when I first became interested in mechanical music, I read the few books on the subject and quite regularly, it seemed, the names of Barnston and Shelland were quoted as being the only churches with barrel organs in regular use. The one at Shelland in Suffolk I cannot speak for, but that at Barnston has not been in use since the early 60's when the bellows finally gave out.

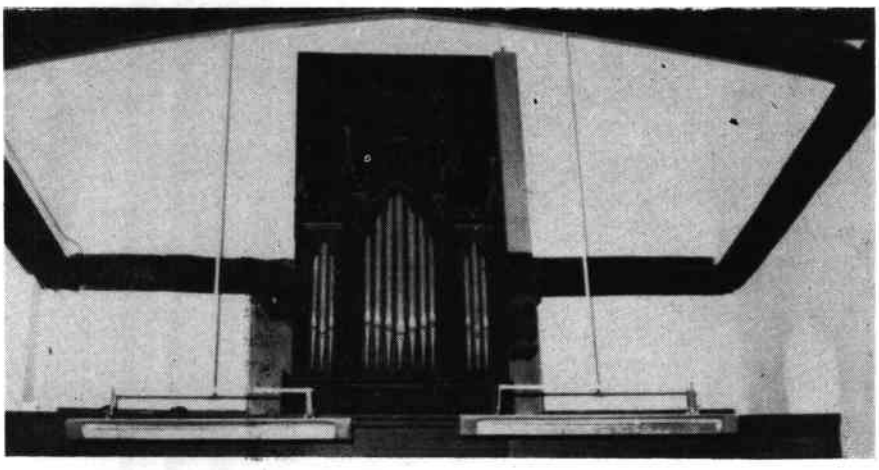
I often passed the small road that leads to the church and back out onto the main road again, so once in a while I took a slight diversion to see if the church was unlocked. Always the door was closed. On one of these passing visits I asked a woman walking by if she knew about a barrel organ.

"Barrel organ? I know the church well but I can't recall having seen a barrel organ". She called to her friend, again the same blank reply and they hurried off with furtive backward glances! Strange, perhaps it had been removed or there may be two churches and I was trying the wrong one.

Time moved on until I visited the Black Chapel to see the barrel organ there. When asked about Barnston the caretaker suggested that I call at Barnston Hall, which is next to the church, and ask for a Mr Turner who should be of help.

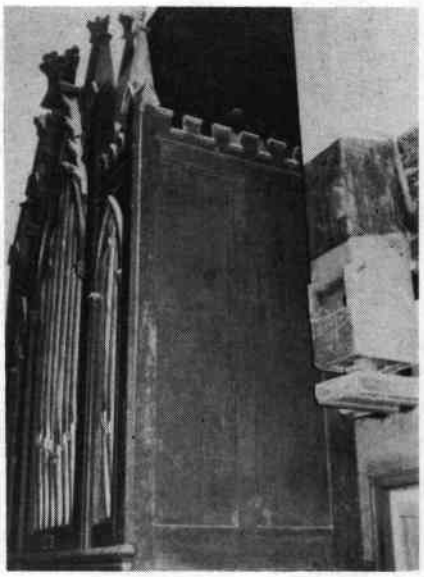
The hall turned out to be as interesting as the church, having been built in 1540 and in still fairly original condition. As Mr Turner fetched the key, I parked beneath roadside trees and it was then that I realised that, although within a quarter of a mile of a main road, no traffic was visible and truly remote the church then seemed. The only sound was a farmer ploughing in stubble — in mid August! What an excessively dry year '76 was, with poppies tall in stunted corn and miriads of ladybirds.

Left alone it soon became obvious why the passing woman didn't know of a barrel organ, it wasn't in the main body of the church but up in the West gallery. On each side of it were three rows of tiered seats and across the front a cushioned bench. From the dust on them it seemed the village had perhaps deserted the church in more ways than one.



Tall and majestic

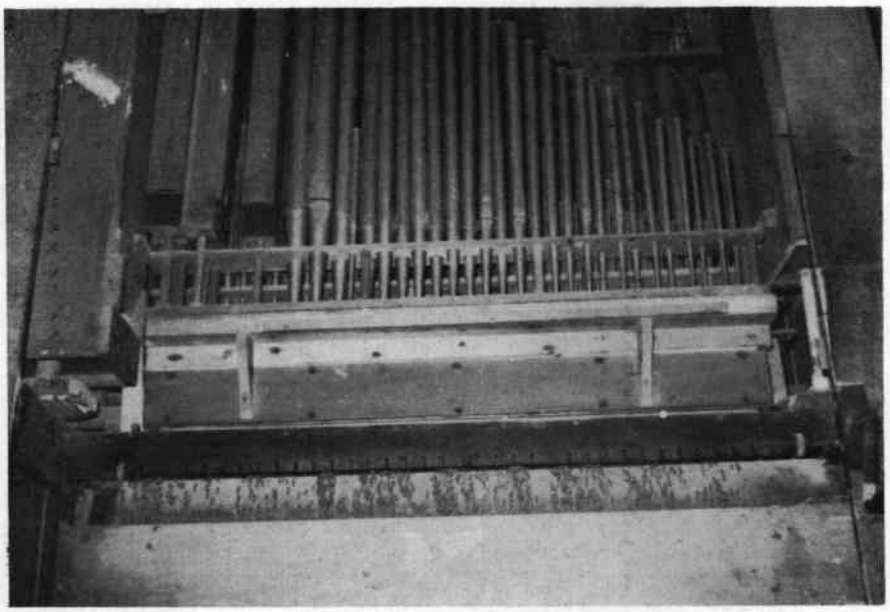
The organ stands tall and majestic but slightly battered, wedged in front of the gallery door with a specially scalloped platform at the rear to allow the door to be opened. The "organist" would position himself on this platform ready to crank as well as pump the foot pedal for the bellows at the same time operating the stops. A bit like patting the head while rubbing the stomach! Although the single feeder cannot even raise a wheeze and the barrel drive is disconnected, the organ is complete and when a door at the back is lifted and secured by a button latch, and the board below it is removed the organ would be able, if it were capable, to play, using the six handily-placed stop knobs. These are, from left to right, Dulciana, Open Diapason, Stop Diapason, Principal, Fifteenth and the last one, minus its knob, but with a marvellous name, Sesquattera. The pipes, I can only say are numerous. Approximately a quarter are wood with one large one of 9′ 3″ strapped to the left side of the case. The smallest metal one is about six

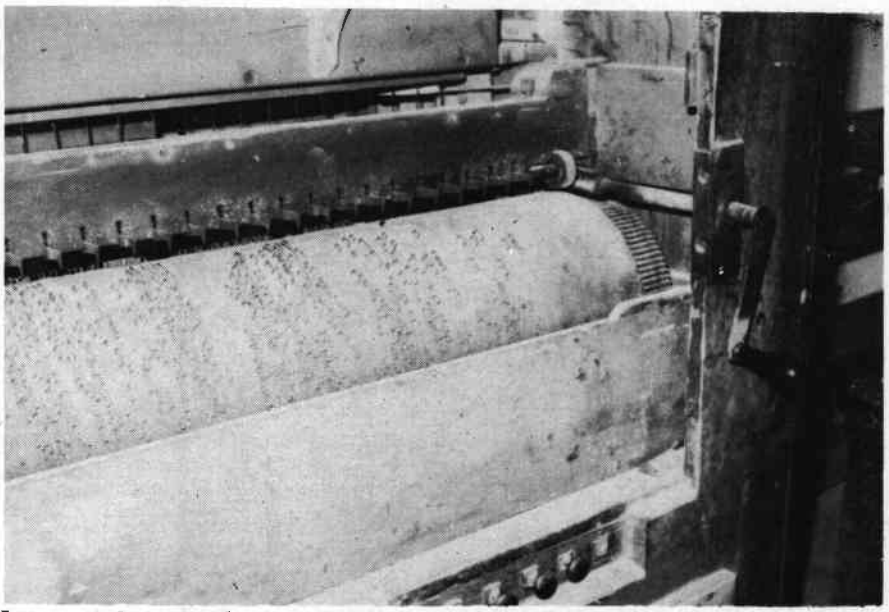


Far left: The Bevington barrel organ showing the large wooden pipe strapped to the side of the case. Left: The four barrels stored in a cupboard behind the organ gallery. Below: When the rear of the organ case is opened, this is the sight to be seen — a large and impressive assortment of pipework above the 35-key keyframe. On the previous page is a view of the picturesque exterior of Barnston Parish church and, at the bottom of that page is a general view of the organ in the West Gallery as seen from the nave. A large, dark-coloured painting is hung immediately behind and above the organ. The added tall wooden organ pipe can be seen to the right of the organ extending to a point level with the top of the picture.

inches and all are operated from a 35 key keyframe. Most likely because of its length, this has small rollers each end which rest on the barrel ensuring a constant distance between keys and barrel.

In a small room off the landing behind the gallery there stands a long narrow cupboard with four shelfs that carry the barrels, each one in its own box. A fifth is on the organ and they are fitted and removed from the rear of the case. When ready for playing the box is held in place by a hinged wedge. The barrel is pushed over to the right and the grooved shaft then projects through the case end ready for the knife to be slotted into the appropriate groove. The dimensions are, barrels — 4ft 4½in long by 10″ diameter, — boxes, 4ft 8in long, 11½in wide and 7in deep





Here can be seen the barrel drive as well as the keyframe rider — a small wheel attached to the keyframe with variable depthing. Its purpose is to ride on an unpinned part of the barrel to maintain barrel/keyframe distance. There is one at each end of the keyframe.

and all are in good condition. The barrels are hollow and although unwieldy they can, with care, be moved by one person.

Working from *Church and Chamber Barrel Organs* I would say that the organ dates from the 1830's when Bevington and Son (not *Sons*) were at 12, Greek Street, Soho Square, London. This is the address on the tune list for barrels one and two. This fits in with the Fobbing organ by Bevington and Sons which is dated 1843, and is of a more modern design with three barrels mounted in a cradle. Arthur Ord-Hume tells me that Bevingtons records were destroyed in the 1930's so a more definite date would be hard to give until perhaps the organ is repaired.

The dark case, with thirteen gilded speaking pipes across the front, is 9ft 9in high, 5ft 6in wide by 2ft 9in deep. At front centre it is 12ft 9in and must be over 15ft to the top of the separate large

pipe mentioned above. The case below the small door which covers the tune change controls reveals a small piece of interest, a run of candle wax. The frustration and mumbled cursing there must have been as the " organist " in his dark corner singed his hair and screwed his eyes to see if he had picked *O Come all ye Faithful* and not *Old Hundredth* ! Incidentally the levers for changing hymns are similar to those illustrated in my article on the Fobbing organ except that the barrel has to be moved laterally by hand when a different hymn is selected.

Refering again to *Church and Chamber Barrel Organs* I must point out a couple of inaccuracies in the referance to Barnston. One actually is covered by what I have already written but I feel it does no harm to bring it out again seperately. The first is that the organ was made by Bevington & Sons in 1865. This should be " & Son " and 1865 is obviously incorrect since barrel 3 is dated 1842. The other point is that Rust did not make two new barrels in 1875. Only one was definitely made by Rust and the one of 1875 was made by Bevingtons. If, however, you look under the entry for Rust in the list of organ builders, in the same book, you will see this is corrected.

At the moment there are no plans to get the organ into playing order again but anyone wishing to study it can do so if they first call on Mr Turner at the Hall on the left of the church. A quiet hour or so can soon be spent in this peaceful church, studying the interior of the organ, and the loudest noise that you'll be likely to hear is the steady chomp of woodworm.

The Barrels and their Makers.

At twelve per barrel there is a grand total of 60 hymns extending from the first two barrels, that must have been supplied with the organ, to the new one of 1875. Judging from the lists stuck near the tune change controls, they were supplied one at a time after the first two.

The label for the first two barrels is headed by Bevington's Greek Street address, the other three lists are all hand written and are pasted on top of previous listings. Barrel number three has a small label which states, " New Barrell 1842 " but gives no indication of its manufacturer. On the list number five is headed, " 1875 New Barrel by Bevington ". So for possibly as much as 40 years the organ was at its height with three new barrels being supplied and it then continued in use until the early 1960's, although towards the end it was not used in services, only being played for the occasional interested visitor.

J R Rust — Organ Builder.

Barrel four was left out of above lists as it has its maker's name on the tune list, Rust of Chelmsford. The *Essex Directory* lists John Rayment Rust as being in business as an organ builder in Broomfield Road, Chelmsford in 1848. This is the earliest entry; he did not appear in the 1845 listings. The name appears regularly, except for a gap from 1890 to 1906, until 1914 by which time he was at 40 Rainsford Road, Chelmsford, as a piano tuner. I would put forward the suggestion however, that from 1906 the entries were for a son of the same name and that the father stopped his organ business in the 1880's. Further research would no doubt confirm or refute this theory. As an organ builder he appears in the directories until 1863 and thereafter as a pianoforte and organ tuner until 1886, from when he was merely a piano tuner. I hope to have further material about Rust in a later article.

Hymns as listed on the organ.

BEVINGTON & SON, 12 Greek Street, Soho Square, London.

Barrel No. 1

Names of tunes.	
1. Chant.	
2. Chant.	
3. Savoy.	
4. Portugese Hymn.	L M
5. Truro.	L M
6. St Anne.	C M
7. Devizes.	C M
8. Sheldon.	C M
9. Bishopthorpe.	C M
10. Shirland.	S M
11. (*Illegible*).	
12. Easter Hymn.	L M

Barrel No. 2

Label torn away leaving only no 12 visible.

12. Dover Evening Hymn.

Barrel No. 3

New Barrel.

Names of tunes.	
1. German Hymn.	
2. St Stephens.	C M
3. Warwick.	C M
4. Salem	C M
5. Wimbourne.	
6. Horsley.	L M
7. Falcon Street.	S M
8. Cranbrook.	S M
9. Grays.	L M
10. Mount Pleasant.	C M
11. Chant — Lord Mornington.	
12. Chant — Dr Goodenough.	

Barrel No. 4

By Rust — Chelmsford.

Names of tunes.	Metre.	AM
1. Eventide.	10's	14
2. Benediction.	8 7	67
3. Hursley.	L M	11
4. Innocents.	7's	20
5. St Matthias.	1 of 8	17
6. Magdalen College.	8 8 6	116
7. St George.	7's	110
8. Redhead.	6 of 7	67
9. Quam Dilecta.	6's	164
10. Stutgard.	8 7	59
11. Redhead.	7's	76
12. Batchelor or Mendlesshon.	7's	43

Barrel No. 5

1875 New Barrel by Bevington

Names of tunes.	Metre.	AM
1. Melcombe.	L M	2
2. St Michael.	S M	129
3. Dix.	6 of 7	64
4. Nicea.	11 12 12 11 Trinity	135
5. Capetown.	7 7 7 5	137
6. St Alphage.	7 6 7 6	142
7. Culbach.	7's	160
8. St Peter.	C M	12
9. St Phillip.	7 7 7	82
10. Trovte No 1.	8 8 8 4	170
11. Hollingside.	7's	179
12. Dr Dykes.	7's	

All pictures in this feature taken by the author.

Holland buys the CDVG collection

THE extensive and world-famous musical box collection of society founder member, Dr Cyril de Vere Green has been sold to the Nationaal Museum van Speeldoos tot Pierement in Utrecht, Holland.

As members already know, Cyril de Vere Green has gradually been concentrating more and more on his international responsibilities and has now retired from his dental practice which he set up over 40 years ago in London's Devonshire Place. Just before Christmas, 1976, he moved from the famous " Number Eleven " to Surrey (see Change of Address, page 44) and it was decided that the collection should be disposed of largely in view of the smaller space at his disposal in the new house.

Conscious of the importance of the collection, rich in early and unusual items, as well as fine examples of Nicole and Bremond, several prominant members recommended

that it should not be broken up. This is even more important in these days of inflation when it would be impossible for the average collector starting today to amass so impressive a collection.

However, there was the problem that no UK museum or foundation appeared able to devote sufficient space to the housing, let alone display, of so many items.

Dr Jan-Jaap Haspels, head of the famous museum in Utrecht which is without doubt the largest national museum in the world devoted exclusively to mechanical music, expressed interest in the purchase of the collection in entirety and consequently was able to negotiate through the Dutch government for the deal to proceed.

The first part of the collection is being set up now and will be officially opened during March/April 1977 in a special room to be named after de Vere Green. At the time of the summer visit of our American tour members, the major part of the initial exhibition will be complete.

Long-term plans for the Nationaal Museum in Utrecht involve the restoration of an old city-centre building into an extensive new museum and research centre complete with lecture and film theatres, concert hall and exhibition complex. This new building for the museum will more than quadruple the size of the existing building at Achter den Dom 12. Latest news is that although completion is the end of a five-year programme which is yet in its early stages, planning and sanctioning is at an advanced stage.

Although it is to be sincerely regretted that so fine and extensive collection should leave the British shores, there is another, broader aspect. These boxes will now be on permanent exhibition as an entity. Furthermore whereas so often material consigned to our museums suffers from being preserved out of very existence and becomes first unavailable, then forgotten, the Utrecht museum offers the philosophy that instruments are to be seen and heard and to this end they will be regularly and expertly maintained by the museum staff under the direction of two of our most expert members, Dr Haspels and Dick van Minnen, the museum technician.

Dr Cyril de Vere hands over the inventory of his collection to Dr Jan-Jap Haspels at a ceremony on the front steps of "Number-Eleven."

Cyril and Bertha de Vere Green, having wrested themselves from the tenacious grip of city-centre life, are now enjoying a more leisurely life. Cyril is still working with musical boxes — he has preserved a small number of items from his collection—and it is rumoured that Bertha is soon to follow the success of her book on the fan *(A Collector's Guide to Fans Over the Ages)* with a second volume on another related subject.

We wish them both well in their new life together, we rejoice that the musical box collection did not go the way of so many in the past (such as Pole, Martineau, Snoxell, Bayford, Bruce and last year Vaux) but is preserved in a suitable place, and we heartily recommend members to visit Holland, Utrecht and the museum. Be assured — English is spoken!

CUSTOM-CASED IN MAHOGANY

JUST once in a while, there turns up on the market something familiar in an unusual guise. Usually it is the product which has resulted from a wealthy customer who has placed a special order for an instrument to match his home decor.

The instrument depicted here is an example of just that rare breed of instruments which, by their very definition, must each be unique in its own way. There is, for example, no other 19⅝in (50cm) Polyphon to be found in a solid, carved mahogany case.

Robert Hough of Chudleigh, Devon, is the owner of this most unusual Polyphon. He says: "I purchased this instrument a few years ago and at the time thought that the casework was not the usual run-of-the-mill usually encountered. The musical motif on the front of the disc storage bin is quite detailed as you can see from the close-up shot. The classical frieze around the top of the case is more akin to Adam than Polyphon. Could it be that the original purchaser ordered it especially to match existing furniture? The dimensions are: height 6ft 5in, depth 1ft 5in, maximum width 2ft 1½in. The only other information I can supply is a number on the motor case — 16141, and DRGM 2, OESTR 4744, and UNG Pat No 9834 on the control lever which controls single- or double-play".

One can be certain that the case is contemporary with the movement and that this is indeed a styled case to match surrounding decor. The question is, to whom did it belong?

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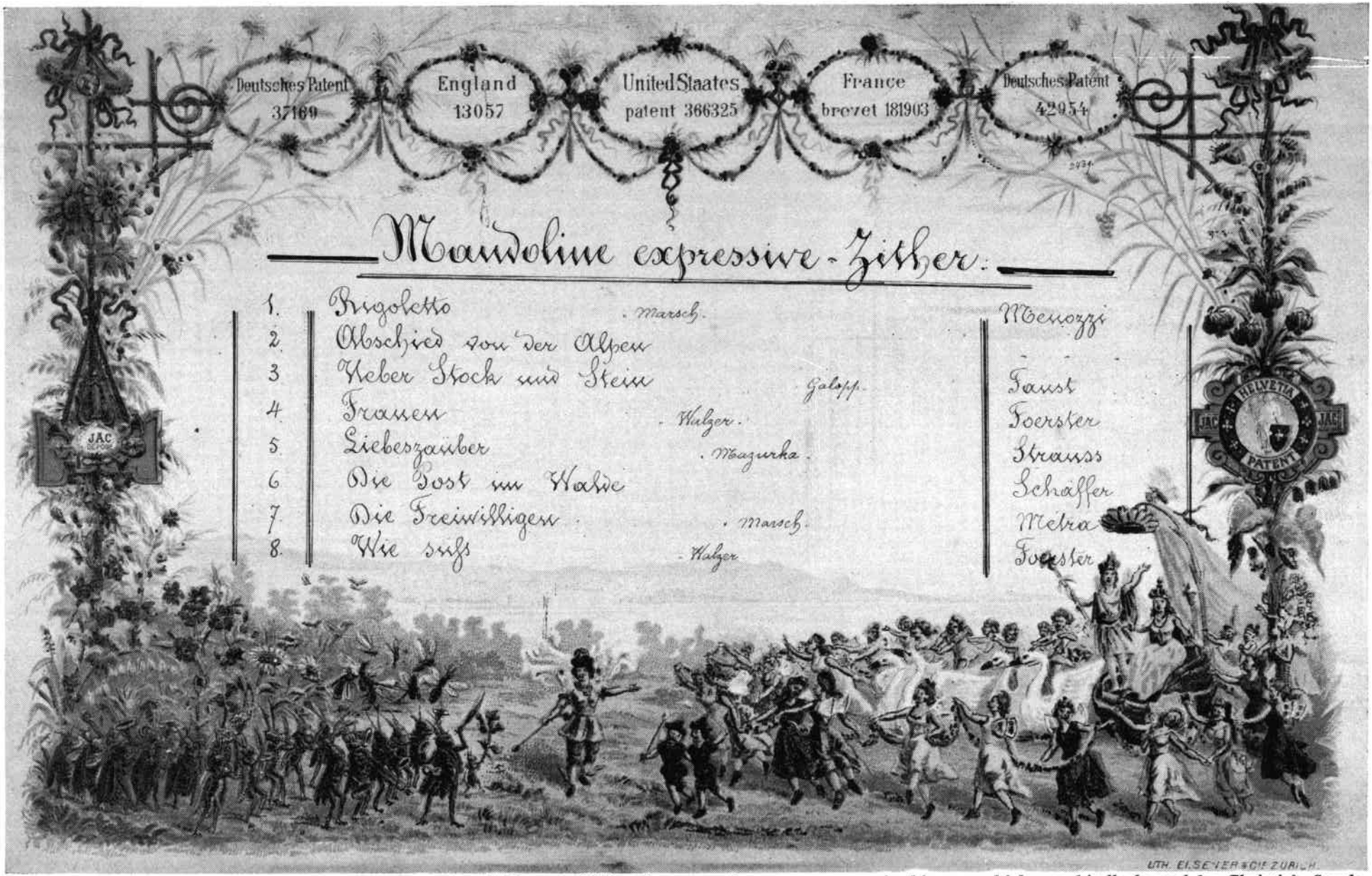


One of the largest and most attractive tune-sheets which your Editor has seen for many a moon is this one which was kindly loaned by Christie's South Kensington for reproduction. The original is even larger, measuring 310 mm x 203 mm. It comes from a Mandolin Expressive-Zither musical box playing eight airs. The movement is nickel-plated as is the cylinder. The spring barrel is mounted on the right of the case and is wound through a silent ratchet with an external crank handle. On the tune-sheet, note the initials JAC centre left, and the Swiss Patent insignia on the opposite side. The patents referred to are US 366,325 of July 12, 1887, in the name of Arthur Junod assigned to Jacot & Son, New York. The English patent is 13,057 of October 13, 1886.

Record Reviews

A BRACE of important organ records, both on Rediffusion's Gold Star label starts us off this time.

First is **110 Key Gavioli Organ Fairground Melodies (Gold Star 15-62)** which features one of the very few original and unaltered 110-key Gavioli's to survive. Only a few of these bioscope giants were built and most have subsequently been altered. None survive in their original condition in Britain. Introduced soon after the turn of the century, the 110-key model was fully chromatic and featured a 42-note melody, 23-note counter-melody and six register control keys plus five for percussion.

The instrument on this record belongs to Dr Robert G Miller of Bottsford, Connecticut and it differs from the known specification both in its tonal capabilities — part of the clarinet register is described as a principal — and is to a slightly different scale with the lowest note F instead of the C below.

After a working life on the funfairs of the Euclid Beach Park on the shores of Lake Erie, Dr Miller's organ has survived with many of its original books of music — itself enough to make this record of much more than passing interest.

The music embraces the years 1899 to 1925 and listening to it one is tempted to lament that so much popular music of today is unlikely to sound tuneful through three quarters of a century. Having said that, though, there is another and more enlightening conclusion that can be drawn from this music. Although exhilerating, well arranged and well supported by effective percussion, the arranger fought shy of solo registers. So much of the music which has been arranged in more recent years has taken advantage of the capabilities of the fair-organ and rejoiced in the nuances of slender voices amidst the fortissimo. Of course, on the fairground, these organs were intended to make noise and what is more noise that could be heard above the sounds of everything else. Today the fair-organ tends to be revered as a concert performer and, more than ever before to be *listened* to.

This is an important record of a rare breed of instrument playing contemporary music and on this count alone it must be rated above most of the other large organ records. On the minus side, though, is the quality of recording which is not up to top standards. A distortion om many tracks mars this valuable disc.

De Vijf Beelden, called after the five pictures which originally decorated its front, was the name given to a 52-key Gasparini organ built in Holland in 1910 and which belonged for a while to one of the Holvoets. Around 1926, it was acquired by Carl Frei who rebuilt it. Although the Gasparini mechanism was retained, the five pictures themselves disappeared, leaving only the name behind.

The organ was then owned by Henk Mohlmann who apparently replaced the statues on the front — the originals had been burned — with those he sawed off the facade of the then-defunct Carl Frei - rebuilt Koenigsberg organ *De Walhalla.*

This delightful organ with its bright tone and forthright (but not overpowering) percussion is the subject of my second record, **Dutch Barrel Organ " Draaiorgel : De Vijf Beelden " (Gold Star 15-63)** which features 16 melodies.

Although undoubtedly a small organ as is clearly exemplified by the subtle arrangement of the music, this is a really fine-sounding instrument. Perhaps nowhere is both its limited compass and its musical arrangement better typified than in the tune *Koekoekwals* (*Cuckoo Waltz*) in which the melody line suddenly resolves into what I can only describe as the descant. But in case you conclude that this is a melodicly limited organ, the tune *Victoria* demonstrates modulations which belie but 52 keys.

All told, this is an exceptionally fine recording of an equally excellent organ which cannot fail to please the *Pierement* adherents.

Organ music of another, more ancient type features on my third record which is on the Da Camera Magna label. **Music für Flötenuhren, Spieluhren — Dreghorgeln und Orgelwalzen III (SM 93259)** comprises pieces of music originally written for mechanical organ played on the 17th century organ of the Pfarrkirche in Obervellack (Kärnten) by Franz Haselböck.

Programme notes in German, French and English tell succinctly the story of the classical clockwork organ and those who composed for it — inevitably stressing Mozart and his music written for Count Deym.

In addition to familiar pieces such as Handel's five tunes *For Clay's Musical Clock,* Beethovens three pieces for flute-playing clock, Balbastre's *Romance* and Mozart's K616, there are some lesser-known delights such as Dandrieu's *Die Singuhr,* Kirnberger's *Allegro* and that delightful *Sonata per l'Organo a Cylindro* by Luigi Cherubini. This is also available in a performance by David Pizarro on the St Peter's Bradford organ (see Volume 6, page 208, for the review of GRS 1017).

The pieces are well played and sympathetically registered to produce a sound in keeping with that of the instrument for which they were originally written. A O-H

Chautauqua

THE plea for help with his organette published on page 268 of the last volume has brought several offers of information for Al Witham.

Colonell Turner W Gilman from Hanover, Massachusetts has taken photographs of his own instrument (unfortunately colour Polaroid and unsuitable for reproduction) and writes :

I have a somewhat similar item. The name is Chautauqua. It is in an old style similar to German or what we call here " old English "—the " u " and the " n " are just about identical. It is easy to see how the misquoted letters were seen when the legend was somewhat obliterated.

Colonel Turner has produced a sketch of the linkage piece on his model which is quite a different shape from that sketched by Witham and adds :

There may well have been more than one design used in different production runs. The lip, turned out on the piece, is struck by the projection on the shaft. It displaces the shaft outwards, releases it from the half-threaded nut in which it has advanced, and the " cob " (as the wood cylinders are called) moves quickly to the extreme left. This releases the linkage piece which, with spring action, rises and the forward tongue pulls the shaft back into its original alignment.

J H Baird of Cleveland, Ohio, refers to Bowers' *Encyclopaedia* and quotes that both " Gem " and " Concert Roller Organs " were sold under other stencil brand names, particularly the Chautauqua Roller Organ label. He adds that the broken part of Al Witham's instrument is known as a " hook " and provides a copy of the original patent, part of which is illustrated here, together with a sketch which once more is of a piece having a different shape.

David Bowers says that " two-thirds " of the roller organs he has seen have the name Chautauqua.

Judith Ord-Hume points out that Chautauqua was the name given to a literary and scientific circle established in 1874 at Chautauqua in the far west of New York State on the shores of Lake Erie south west of Buffalo. Initially designed for the training and inspiring of lay church workers on the shores of Lake Chautauqua, it was soon developed into a centre of study and craft groups. Ultimately it expanded into drama and vaudeville and set up travelling shows which were extremely popular and very moral. The entertainment was a vehicle for soap-box oratory in many instances. The movement, which was killed off by the arrival of the motion picture, gave its name to a number of artifacts, among them the Ithaca-produced roller organ.

Book Reviews

AUTOMATA & MECHANICAL TOYS, An Illustrated History *by Mary Hillier. Jupiter Books (London). 200pp, 10ins (255mm) by 7⅝ins (194mm), illustrated. £5·95.*

A new book dealing with automata was almost sure to be welcomed. Nothing written in English has appeared since the translation of Chapuis and Droz in 1958. From that time, mechanical toy, musical box and doll publications have left an increasingly obvious void which Mary Hillier has now partially filled with her 200-page book comprising 11 closely-written chapters and over 230 illustrations.

The full title of the book is a very accurate guide to its contents. It covers automata very much from the viewpoint of the specialist rather than that of the musical box specialist or even the doll specialist, although Mary Hillier has written equally well on that subject. It is also written very much from the angle of the historian rather than that of the restorer or collector, although once again, Mary Hillier does herself collect.

Finally, although copiously illustrated, this publication is not graphic art in the picture book class, but precisely what it claims to be — an illustrated history. This has undoubtedly the advantage of putting the book into a modest price bracket in which it is obviously a good buy; even if the illustrations and general layout fall short of the highest standards, they in no way detract from the quality and interest of the author's work.

There is a wealth of hitherto scattered history compressed into these pages, and each time I dip them I find myself attracted by some illustration and the piece of text which illumines it. However, it is frustrating not to be given adequate reference sources which are lacking on occasion. The author's style is very direct, factual and condensed, so that one is frequently left wishing to follow up on some of her statements. For example, on page 139 she alludes to a rumour that Pinchbeck invented the tuned steel comb nearly 80 years before Favre, but give no reference to the source of this remarkable possibility! In another example on page 56, she says that Jean David Maillardet was responsible for the famous "Great Magician" clock and that it has a musical box in it. Either she is wrong about the music box, or wrong about Jean David's death having been in 1808, or large musical movements were made long before others have led us to suppose — or this clock was not completed until long after Jean David's death. Chapuis' description and illustrations of the mechanism of this piece mention no musical movement, so this whole issue may stem from a simple error. It would be churlish to criticise a pioneering work for an odd mistake like that, albeit an important one for the musical box buff. What one regrets, as stated earlier, is the inadequate reference to sources which make it difficult to follow up the author's work. This applies equally to her writing on patents. It is self-evident that she has read a great deal on the subject, but she does not always help her readers by quoting patent numbers.

The book is not pedantically divided into chapters in historical sequence. The first chapter "The Age of Fable" admittedly deals with ancient history and the last "Penny Toys and the Plastic Revolution" brings us up to modern times, but the intervening chapters deal with slices of history in terms of subject rather than date and even within chapters the

text is by no means always chronological but diverts in, dare I say, a rather endearingly feminine way. This understandably helps to make the book a good read, more so than could perhaps be possible with a stricter framework. It has also helped the author to present the development of automata and the impact of that development in a broader social historical context. However, when it comes to using the book as a work of reference, this form of presentation places very great demands on the index which is unfortunately too thin to rise to the challenge. An example concerns Vichy. Only one page reference is indicated, but there are several illustrations of Vichy automata on other pages as well as reference on yet more pages. On the other hand, one is so often frustrated by the total absence of an index in Chapuis. Mary Hillier backs hers up with useful list of toymakers and their marks plus a brief chronological biography of famous names.

It may have seemed unfortunate for the toy sections of this book that David Pressland's magnificently illustrated book of toys was released so nearly at the same time, but here again the present author has brough in new material, particularly on the historical side and has introduced W Britain as an important maker of toys — which he and his sons certainly were. It is high time that Britain's toys, many of which closely imitated the more expensive automata, were regarded as serious toy collectors' pieces which they undoubtedly are.

The author does not claim to be mechanically minded but I do think that some of the machines are so simple that it would not have been difficult for someone of Mary Hillier's intelligence to understand and therefore describe them more accurately. It would have prevented the description of a singing bird (page 111) as being similar to a ventriloquist's dummy with the sound "emitted from bellows and valve apparatus within". After all, the main invention was the use of the whistle with the moving plunger to produce the birdsong. The bellows and valve were perfectly ordinary ancilliaries. Indeed it does seem remarkable for anyone to be sufficiently interested in mechanical toys and automata to write a book about them, while apparently not having too much interest in how they work.

In summary, therefore, it is the very strength of this book which makes one take it seriously enough to regret some of its shortcomings. Accordingly it should undoubtedly find a place on the shelves of every serious collector.

GRACE THOMPSON

CALENDAR

1977

May 21st
Musical Box Society Int East Coast Chapter, Botsford, Connecticut, USA.

June 3rd, 4th, 5th
Musical Box Society of Great Britain Annual General Meeting, London, England.

4th Karoussel - und Drehorgel - Festival, Hannover, West Germany.

September 9th, 10th, 11th
Musical Box Society Int Annual Convention, Cleveland, Ohio, USA.

October 15th
Musical Box Society of Great Britain Winter Meeting, London, England.

1978

June 2nd, 3rd, 4th
Musical Box Society of Great Britain Annual General Meeting, London, England.

September 29th, 30th, October 1st
Musical Box Society Int Annual Convention, Sarasota, Florida, USA.

October 14th
Musical Box Society of Great Britain Winter Meeting, London, England.

Convention and Event Organisers are invited to send in dates for regular publication to aid members throughout the world in planning their participation.

Society Affairs

Birmingham Meeting

THE Autumn Provincial meeting of the Musical Box Society of Great Britain was held in Birmingham on December 3rd, 4th and 5th 1976.

Venue for the convention was the Europa Lodge Hotel, a modern motorway-style building just outside the City centre. However, due to a booking error on the part of the hotel management, it proved impossible to hold the actual meeting and dinner at the Europa. The hotel management duly arranged that these parts of our function should be held at the Strathallan Hotel, a fine 4-star hotel on the Hagley Road three miles away. A motor coach was provided for the transit and in spite of this apparent complication to the meeting, it proved in no way to upset plans.

Organiser of the meeting was John L Hammond from near-by Moseley. His arrangement of the programme proved an eminent success.

There were some fears that the weather might reduce attendance for that week-end was the first severe cold snap of the winter and continuous frost, freezing fog and ice on the roads prevailed. As it was, several of our members, including those from Ireland, were delayed in their journeys both to and from the meeting. Notwithstanding this, however, the meeting was extremely well attended with 65 registrations.

Some 15 or so members gathered on the Friday evening and, on completion of a meeting of the Executive Committee in a private room, the society President gave a short slide show on the development of the free reed from elemental state

The Blackpool Tower Imhof & Mukle orchestrion, also pictured lower right, seen from the rear as Mr David Lukeman of the Birmingham Museum monitors the playing of the Imhof music-leaf conversion. Below left is Mr Dennis Norton whose museum the Society visited on Sunday.

up to the organ reed and the plucked tooth of the musical box comb.

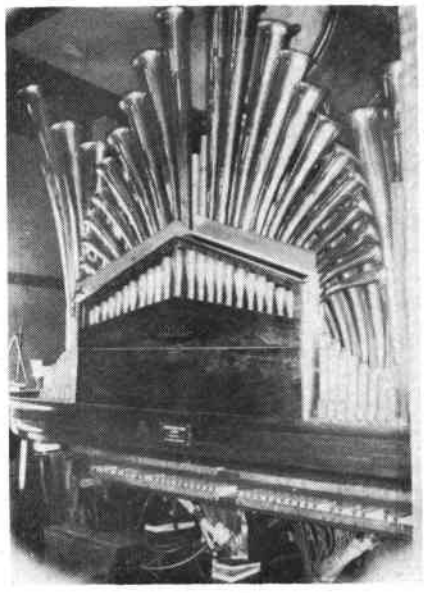
The meeting was then thrown open for an informal discussion which went on late into the night.

The Saturday dawned cold, frosty and foggy and it was a well-muffled-up group which boarded the motor coach for the short journey to the Strathallan. At this hotel, a comfortable lecture room was provided of ample proportions and the first talk was by meeting organiser John Hammond. His subject was the code of practice which should be adopted by musical box restorers. This talk, in an expanded and slightly altered form is presented by John Hammond as the article on page 24 of this issue. His recommendation that all members who consider restoration should adopt a code of rigid ethical practice was well received by those present.

After a break for coffee and biscuits, the second talk of the meeting was presented by David Heeley from Stratford-on-Avon. As readers of *The Music Box* already know, David Heeley has been arranging music for organettes for some while and has virtually become a self-taught *noteur*. With the aid of an ordinary and normally nasal-sounding Celestina, he played some music bands which he had arranged and cut out using a modelling knife and chisel. Many of those present heard real music emanate from the instrument, not the normal badly-arranged hymns or American popular songs, but well-articulated melodies. David Heeley received a spontaneous round of applause on completion of each tune performance.

Our final talk for the morning was a presentation by Mr Sidney Shacklock of the Birmingham Museum of Science and Industry. This talk, by way of a prelude to our afternoon visit to this museum, proved to be a most fascinating review of how the museum came to be what it is today. Illustrated by slides, Mr Shacklock related how the building was an old engineering works which was taken over in derelict condition. Over the years it has been restored structurally and extended into the modernised building which it is today. Pictures of the "before and after" variety showed what transformations were achieved. Of great interest to locomotive enthusiasts present was the story of how the giant steam locomotive *City of Birmingham* was delivered by road into the centre of Birmingham and unloaded onto a cleared piece of waste land — and a museum extension built round it!

After luncheon, everybody boarded the motor coach for the short ride up to Newhall Street and the Museum. Here the party was split into three groups. John Ham-



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Section of a Musical Box Comb before restoration

Same Comb Section after restoration

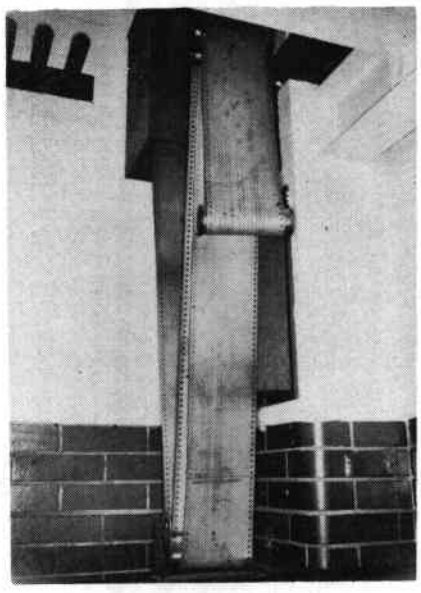
INSPECTION OF RESTORED WORK WELCOMED

The Bournville carillon, left, viewed from across the road. Right is Mr Trevor Workman, carilloneur, on the steps of the cabin housing the clavier.

mond was responsible for showing each group the collection of musical boxes and automata formed by the late Mr Liddell of Birmingham. John Hammond had worked several days at the museum to get the boxes in condition to demonstrate. He was aided by Mr Harold Foster, one of the Museum staff.

Arthur Ord-Hume was responsible for showing each group the great Imhof & Mukle orchestrion organ which once stood in the Tower Ballroom at Blackpool and which came to the museum in 1879. The organ was barrel-operated and weight-driven until about 1910 when it was converted to play using the Imhof music-leaf system in which condition it now survives. Arthur Ord-Hume was aided by Mr David Lukeman of the Museum staff.

The parties were intended to split three ways to allow time for each group to view some of the fascinating collection of early motive power engines, machine tools, motor cars, aircraft and engineering relics which make this one of Britain's most interesting science museums. However, it soon became obvious that the party, in spite of having been nominally divided, had polarised into two groups only! The small access to the Liddell room having dictated this policy in the first place presented the only problem.



Aside from this, Mr Lukeman kept the orchestrion in play all afternoon with a fine diet of music from the large library available. Our Editor, rummaging about behind the organ, managed to find the original mahogany box containing a linen blind on two rollers — like a cross between one of those old office wall calendars and a bus destination blind — which had the names of the rolls lettered on it. When the organ was in use in the ballroom, this would have been used to show the music which was being played. A nice touch and one now (almost) lost.

THE SUMMER MEETING OF THE MUSICAL BOX SOCIETY OF GREAT BRITAIN

. . . will take place on **June 3rd, 4th and 5th, 1977,** as a prelude to the Queen's Jubilee celebrations. Venue for the meeting is as before — the Kensington Close Hotel, Wrights Lane, London W8.

American members are advised that a special charter flight is being organised by Vice-President Hughes Ryder.

After our President had thanked Mr Shacklock and his staff for their kind hospitality and generous assistance, the motor coach took the party back to the Europa Lodge Hotel to enable those who were attending the dinner to prepare themselves. Back into the bus and back to the Strathallan by 7.0 pm.

We were delighted to be able to welcome Mr Sidney Shacklock and his wife Joyce as our guests for dinner. The meal completed, David Secrett demonstrated his latest automaton, the lute player with music from a pinned wooden barrel. This was enthusiastically received by the diners.

The carillon player, left, with bands of perforated cardboard music stretched on tension rollers disappearing into the roof. Right is the 8-bell chiming mechanism.

Keith Harding's excellent colour film showing the restoration of a large cylinder musical box, which some of us have already seen in part at a previous London meeting, was then shown in its entirety with commentary provided by Keith Harding in person.

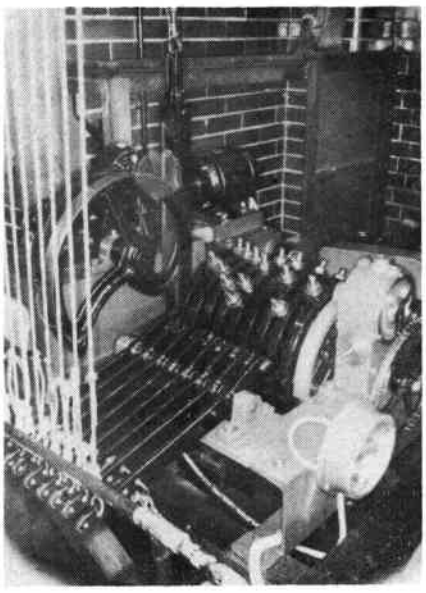
To round off the evening, John Hammond showed several short films, including the ever-popular W C Fields classic car chase, and a cartoon.

Something over an hour later than intended, the coach took everybody back to the Europa Lodge where musibox collecty chattel could be heard well into the small hours.

Sunday morning dawned just as cold, frosty and foggy as everybody checked out of the hotel and boarded the motor coach for a visit to the Norton Collection at Upton Warren, a tiny village three miles outside Bromsgrove.

Founder Dennis Cyril Norton

continued on page 49



Repair, Maintenance & Accessories Section

IN response to many requests from members on the subject of repairs, maintenance, accessories and services with regard to mechanical musical instruments, *The Music Box* is publishing this, the first of a periodic series of directory sections.

The Musical Box Society of Great Britain and the Editor provide this information to members in good faith and may not necessarily be able to vouch for the details, nor the advertisers' statements contained herein.

Members seeking to make use of this section are strongly advised to write to the service address in the first instance and not to send valuable property by way of a first communication.

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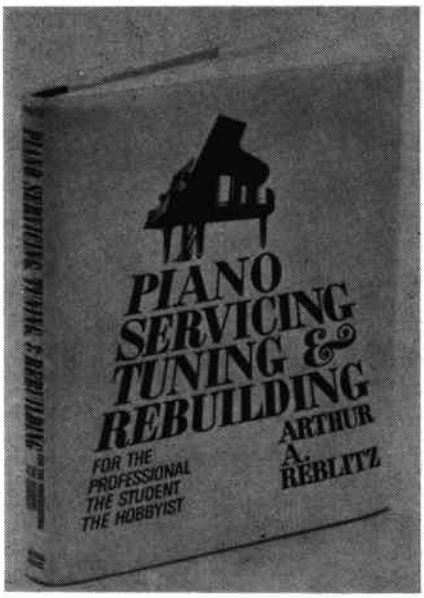

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Letters to the Editor

Leland W Sprinkle, man behind the Luray Caverns stalactite-player, writes from Springfield, Virginia :

NEEDLESS to say, it is most flattering to have one's project included in the writings of the prestigious international magazine, — *The Music Box*. Having read with great interest the stalactite organ account from a British point of view and the most discerning record review, I should like to comment on several points which I believe may be of interest to the Newlands and to the unknown author of the record review.

Let's look at the statement : The player system, first used on July 29th, 1956 to play A Mighty Fortress is Our God, must certainly rank as a hark back to a long-past level of technology. I agree — that's why we don't use it and haven't for many years. It is due for a disappearing act ! However, the player which replaced it might at first glance have inspired the same statement.

The new player uses a drum 3 feet in diameter and 40 inches wide. The mylar plastic belts are fastened down securely on the drum and the whole assembly rotates so the belt cannot " walk off ". The drum speed ? Driven by a 72 rpm synchronous motor even geared down from this speed by nylon gears, the drum itself rotates at the incredibly snail-pace speed of only two-thirds of one revolution per minute ! Thus full revolution takes one minute and 29 seconds, the absolute limit on the length of a composition — just the right length to accomodate the various groups coming through the cave at many thousands per day.

How about the sophisticated rewind of the new, refined mechanical players ? We don't have any rewind — the drum always goes the same direction. The melted holes are wide slots so that even though the brushes get slanted, they make contact anyway.

In all the years that this " new " player has been operating, not one brush has ever been replaced — each brush merely signals a power transistor to do the work of operating a powerful relay for each rock, which in turn fires a 425 volt condenser-discharge blast through a line at the appropriate rock. Not one time in all its history of millions of auditors has there been a player breakdown !

So you see, we did not adapt a new and sophisticated refined and delicate mechanism to the stalactite organ, we designed a deliberately rugged and simple mechanism to fit the specific instrument.

It is commendable that the Newlands have done such an analytical job; really, the history of the stalactite organ is well covered here as whatever staff member gathered up the information at Luray sent information which was very interesting in light of pioneering work. We no longer have any vacuum tubes, all solid-state circuitry now replaces the tubes and would make another story. I note with interest on page 223 the picture described as " Leland W Sprinkle, electronics engineer, who visited the Luray Caverns in 1954, seen here . . . , etc ". The man pictured here is Mr Grafton Campbell who worked with me for years so faithfully that he was designated as maintenance engineer of the stalactite organ.

The Newlands have assuredly done a splendid job and the spirit of the project has been carried through in admirable fashion. When the authors come to Luray again, please invite them to contact me and I'll take them through the electronic and mechanical features of the instrument. Arrangements should be made through Mr Cavedo, Director of Public Relations and Advertising.

As to the record review, my wife and I were touched by the beautiful way in which the reviewer conveyed the emotional impact of the ancient stalactites. We were moved by the message these ancient sentinels of the past had communicated to the writer of this inspiring review. Thanks so much — once in a while hard work does seem to be appreciated.

Peter Dobbs writes from Croydon, Surrey :

ON page 200 of Volume 7 I wrote about my acquisition of a small F Nicole in a tin box. Members may be interested to know that the missing top four treble teeth have now been replaced by John Cowderoy Antiques. The photograph *(not reproduced—Ed)* shows the high quality of Patrick McCrossan's invisible work.

As a matter of interest, I am told that Gamme No 527 is *Bid me Discourse* by Bishop. This tune is pinned to play over two rotations of the cylinder. Surely this two-part pinning is most unusual ?

Graham Webb writes from Gunnerside, North Yorkshire :

I WRITE to make a strong complaint about the editorial of the Christmas, 1976, issue of this journal. It was worthy of the worst in yellow journalism, and not, if I may say, of the winner of the very first MBS Literary Award.

To put the record straight: when I left my shop in Portobello Road and ceased to be a dealer, I signed my workshop over to the man who had given me good work for a number of years. In store at the back of the building I had left several damaged boxes whose repair at that time would not have been worthwhile. On a recent visit to London I examined these boxes again. Among them I found two Nicoles, the numbers of which you have publicised. One of them, number 36297, had been bought as an incomplete scrap movement, in a good case, and was still a scrap movement. Among many faults the whole of the cylinder arbor assembly was missing, although when I bought it another had been put with the movement, though not assembled. The case was inlaid and in good condition, it was very similar to the damaged case of the other Nicole, the movement of which was damaged, but repairable. I emphasise that both cases were, apart from the marquetry " picture " on the lids, identical, so much so that the movements were interchangeable. I did the obvious thing. I put the good movement in the good case and left the damaged box with the scrap movement until some time in years to come when this too might be worth repairing. This gave me one good Nicole whose design had changed only in the picture on the lid.

The editorial is a mixture of misinformation and sensationalism. The phrase " The facts must be reported " is followed by many others that are far from fact. I have secured for myself (as a private person) a good Nicole Freres key-wind musical box from two badly damaged boxes. How then am I guilty of " sheer irresponsibility "?

My reputation is there for all to see. What, I wonder, is the reputation of your incompetent snooper into other people's workshops? What was he doing in the place of work of one so obviously stooping " to co-operate with such low deceit "?

Editor's Comment : *I had no idea that the items in question belonged to our very good friend Graham Webb. My informant naturally assumed that the items were to be placed on the market. The situation is obviously different. There is, of course, nothing to prevent private members doing as they please with their own musical boxes. No offence was implied or intended to Mr Webb, who was for many years a prominant and respected dealer in mechanical music and, of course, edited this journal for two years. Graham Webb currently owns and operates a restaurant and hotel near Richmond in North Yorkshire where he tells me he has a display of musical boxes for the benefit of his guests.*

Q David Bowers writes from California:

I ENJOYED your article on page 279 of Volume 7. It was a skillful blending of many interesting factors in different areas.

I always thought it a shame that more has not been written before on the accoustical considerations of music boxes. The superb tone of the Lochmann " Original " boxes, which you mention, is really fantastic — and it is a wonder that this was not copied by others. So far as Kalliope instruments go, it has been my experience that the superb tone is in the smaller boxes — even ones under 10 inches in diameter — and that the very large ones are rather indifferent so far as tone is concerned. There seems to be a quintessential quality to tone production. I have had many different Regina music boxes in various styles, and even within the same style the tonal variations can be tremendous, almost like a group of old violins will vary from one to another in tone. Some will be resonant and brilliant and others will be very weak sounding. It seems to have little to do with the construction of the box — at least the visible construction — the preservation, or anything else which is tangible.

The Eroica music box apparently was marketed to a fair extent in America, for quite a few of them are known here today — pieces which trace their origin to sales here around the turn of the century. In addition, of course, there is the triple disc instrument made by the Symphonion Manufacturing Company in New Jersey. To my knowledge there are just two of these extant: a specimen in the collection of Walt Bellm in Florida and another piece which sold for $7,500 on October 30th in an auction in Las Vegas, Nevada, the specimen formerly in the collection of Mr Slim Ewing of the same city. I have never seen a double-disc instrument made in America by Symphonion but have seen a number of European styles. I have owned two large Lochmann " Original " double-disc instruments using 24½in discs and have heard of one other. Both of these specimens

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had bells. In addition I have seen a photograph of a Komet double-disc instrument of approximately the same size and format. The only Monopol Gloria which I know of at the time is the one you mention as being in the collection of J B Nethercutt and which was acquired from me a few years ago.

A Criterion disc-changing music box was once owned by Lloyd Kelley and was mentioned, I believe, in the silver anniversary anniversary publication of the Musical Box Society — a reprint of an earlier article. I've never seen one personally, but it is fairly certain that at least one exists. Among the three main sizes of Regina disc-changing music boxes, 15½in, 20¾in & 27in, the 20¾in is by far the scarcest. I have had a number of Polyphon changers over the years and have concluded that the 15½in Polyphon changer is by far the rarest, with the 24½in coming next in rarity, and with the 22½in being the most plentiful. The 19⅝in is second most plentiful.

Concerning Symphonion disc changers, from memory I can say that I have owned one specimen of style 101 and 102 pictured on page 231 of the *Encyclopedia of Automatic Musical Instruments*, and have in addition seen an extra specimen of each of these — making two of each style known to me. In addition I have seen 2 specimens of style 100 (page 230) here in America. I have never seen any of these in Europe. The changing mechanism of these is rather halting in its operation and does not seem to operate as smoothly as the Polyphon or Regina mechanisms — which was probably their downfall.

Concerning " phonopectines ", I have had quite a few different Reginaphones, but never one in the 27in size. Concening Mira instruments of the genre of this, the Nethercutt collection contains a console model which uses an 18½in disc. It is in a very nicely sculpted mahogany cabinet and I saw it just last Friday ! Mrs Ruth Bornand had one of these in a smaller size during a visit I made there seven or eight years ago, and in addition Hathaway & Bowers once owned a Mira with phonograph attachment provisions, but the phonograph attachment was missing.

In one of our recent MMM catalogs we listed a Polygraphon with the spindle for accommodating the phonograph turntable, but the turntable and horn were missing. This was eagerly purchased by a Texas specialist in Polyphon—who was delighted to get it. This particular one is the only one I have ever seen.

Your comments concerning instruments which are modified to serve two fundamentally different functions brings back an interesting anecdote which I remember from my early days of piano rebuilding. In 1960 and 1961, when I began my interest in music boxes and nickelodeons, I endeavoured to set up some sort of a small workbench and tool shop. Among my first purchases were several " combination " tools — combination screwdriver, a combination hammer, a multipurpose wrench, and so on. Harvey Roehl, who was guiding me at this time, was appalled and said that a tool which is made to serve two different purposes can serve neither well ! I soon " found the light " and composed my tool collection on a more orthodox basis.

I recently acquired an instrument for my own collection — and perhaps a description of it would be of interest to you and/or the readers of *The Music Box*. It is a Gebr Bruder organ, " Military Symphony Orchestra Selection ", as described on page 832 of the *Encyclopedia*. Pictures are deceiving, and when I first located the photographs in an old Bruder catalog I thought that the instrument would be modest in proportions. However, the actual organ is rather huge. While I haven't set up the facade to measure it, I would estimate that it is about 12 to 13 feet high by 13 or 14 feet wide ! Unfortunately the condition leaves much to be desired. All 15 of the small automata musicians on the front are missing, although the bellcranks and actuating devices under the stage in which they perform are still there. Do you have any suggestions where these could be replaced ? The figures are apparently quite intricately constructed, for the original advertisement says that the musicians move their heads and eyes and operate the instrument in a " most unusual manner ". The Weber orchestrion with animated figures as pictured on the bottom of page 626 and which was located at the Guesthouse of the Sun in Bleibach, but which has since been to the Eagle Guesthouse north of Waldkirch, has somewhat similar figures—and was probably made around the same time in, of course, the same town, Waldkirch.

The music system is of the 94 keyless style. Unfortunately there are just two leaves from an old music book with it — no complete music book and no tracker scale. Do you know of anyone who might have a tracker layout to this or who might possess some original music or music arrangements ?

Even more interesting is an examination of the organ itself. The front of the instrument says " Walkirch-*Germany* ". It is my belief, after examining the minute details of the carvings on the organ I have, that this is the identical picture used in the original Bruder catalog ! My instrument, so far as can be determined, was originally used in the New York City area shortly after its manufacture. The fact that it was made for an English speaking country is evidenced by the word " Germany " which certainly would not have been used had the organ originally been sold in a German speaking, French speaking, or other continental European country. Apart from the illustration in the Bruder catalog I have never seen or heard of another example. Have you ?

It is a really remarkable find, and despite its quite unrestored condition at the moment I am pleased to own it and am looking forward to eventually hearing it play and seeing it operate once again. It is a long, long restoration task and will probably take a couple of years.

In summary, information I would like to obtain at this point would be : a tracker scale or layout plus knowledge of the existence of any music available for the instrument; help, guidance, and suggestions concerning the reconstruction of the automaton figures; and any other historical data concerning this particular instrument model.

American International Galleries, which moved to its new location in Irvine this past May, is finally getting set up in a proper manner. It is becoming a tourist attraction in South California — with the Taj Mahal organ, which is rather spectacular as you know if you've seen it, causing a lot of the interest. Commercially it is doing fine also. By the way, if the MBSGB has a poster or notice it would like to have put on the wall of our showroom or if you would care to send a few hundred leaflets we would be pleased to distribute them to interested parties. On the other hand, perhaps you have enough American members already !

J L Weatherby writes from Stoke-on-Trent :

I READ the article " Ethics of Restoration " in the Christmas issue of The Music Box and that is why I am writing this letter.

Let me say at once that I know little about musical boxes and I am a very recent member of the Society.

A few months ago I obtained what seemed to me to be a very interesting box. It is not large, the serial number is 124 and the name on the comb is Reymond Nicole. It is key-wound. The length of the cylinder is 7½in and the diameter 2½in. It has a single comb of 145 teeth. What appears to be a tune sheet is hand-written on plain paper and stuck on the bottom of the box which has four feet. The sheet is indecipherable. The box plays six tunes and appears to be an overture box. The comb has three broken teeth and some repinning is necessary at the bass end of the cylinder. The box is dirty and full of dust and has obviously been neglected for a long time.

To my inexperienced eye it would seem to be in need of some restoration but your article has made me think.

I would be grateful if you would give me the benefit of your advice and maybe recommend someone who could undertake the work.

Editor's Comment : *Would that all collectors were as conscious of their responsibilities as Mr Weatherby! A commendable approach indeed and one which deserves to be followed by all who fail to know the limit of their capabilities. It would be inadvisable to recommend you to one particular restorer, other than to suggest that you peruse the advertisements in The Music Box and act accordingly.*

James R Heyworth writes from Burnaby, British Columbia :

MANY thanks to you for your editorial in the Christmas edition of *The Music Box*, which reached me today. Your comments about the deliberate mismatching of musical movements and boxes struck a responsive chord. I wonder if there are enough such boxes around that some sort of registry might be in order so that dedicated collectors can perhaps sort out at least some of the mess?

A few years ago I purchased a two-tunes-per-turn Nicole, number 39385, from a New York dealer of repute. I do not think this dealer was aware of the fact that it was in box number 35156, where it remains to this day because there is nowhere else to put it. Needless to say the fuss of returning it over 3,000 miles and re-crossing the border made thoughts of its return out of the question, particularly since I *did* like it. I am, of course, interested in knowing if there is someone out

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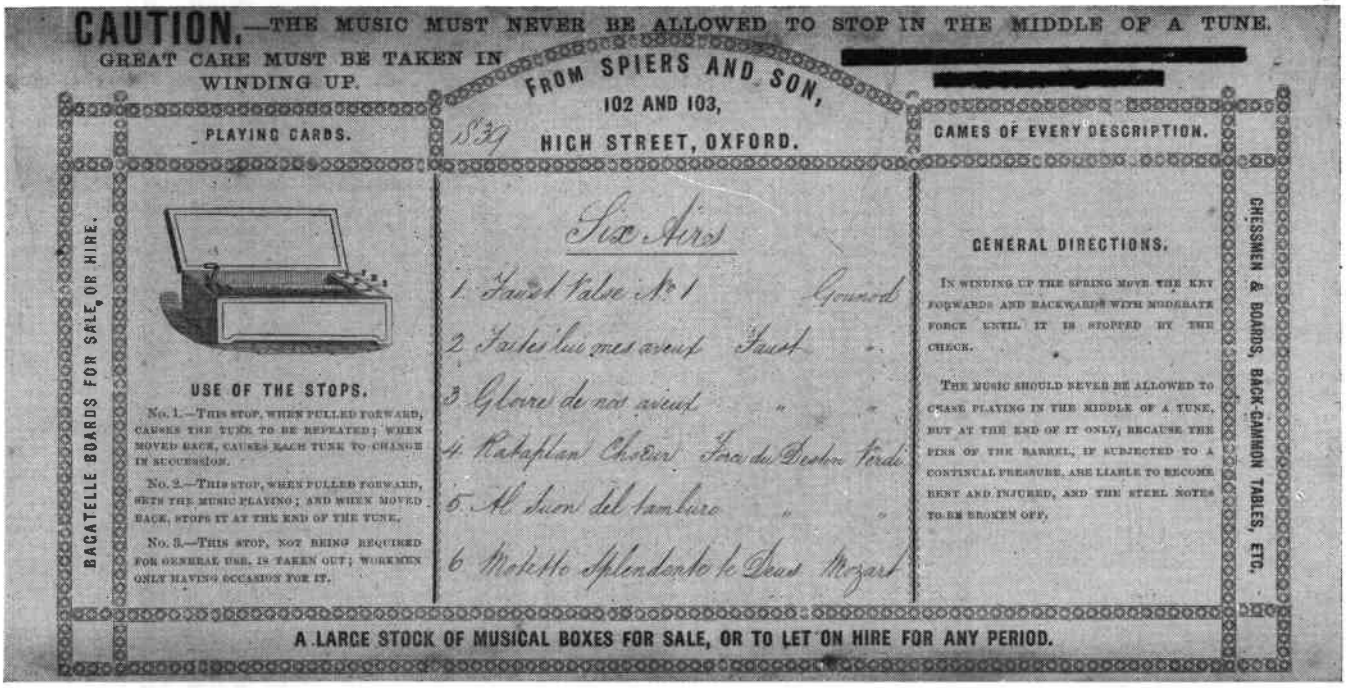

NICOLE FRERES BY RENT-A-BOX

This unusual tune-sheet is from a Nicole Freres piece which was available for hire. The label shows that the box was the property of Spiers & Son, one of the older musical pastimes and fancy goods shops in Oxford. The tune sheet itself, slightly reduced in size here, is printed in black on off-white card with the cautions at the top printed, significantly, in red. The section which has been heavily crossed out reads "All damage done must be paid for by the hirer". The box is numbered 39275 and dates from around 1862. The tune-sheet below, full-size, is from another Nicole from around 20 years later. Both Traviata and Trovatore date from 1853, Lecocq's Madame Angot (not elevated to the status of Dame as suggested on the tune-sheet !) was 1873 while Meyerbeer's Pardon de Ploermel was 1859. Johann Strauss's Blue Danube was first played in 1867. Both these tune-sheets are from boxes in the de Vere Green collection.

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started his museum collection in his spare time from working on the production line at the nearby car factory. His collection had actually begun when he was a schoolboy and extended to the point where he had to move into the old village schoolhouse and set up his treasures for public display.

His particular criteria for an item worthy of his museum is that it should have some connection with Bromsgrove where he was at school. His display of musical boxes features locally-sold or owned items. The party was impressed by the wide variety of domestic relics on show.

The President thanked Mr Norton for opening his museum to us on Sunday and was also delighted to be able to welcome him as a new member. Mr Norton had some years ago attended our Droitwich meeting as a guest.

The final event of the week-end lay in the village of Bournville and this was the next destination of our coach. As the spacious area of this village, founded by the Cadbury family who were Quakers, came in sight, the fog cleared and a watery sun glinted on the green copper dome of the famous Bournville carillon.

The carillon had not been in working order for some long time and during repairs to the weather-vane on the top following the hurricane of last January it was discovered that the roof fabric was corroded. The long and costly repairs were only completed a few weeks previous but the actual carillon itself had remained inoperative. Hearing that our party wanted to visit the carillon, the carilloneur, Mr Trevor Workman, along with John Hammond and several helpers from the car factory together worked on the restoration of the mechanism. It was finally completed and in playing order, albeit a little stiffly so, by 8.0 the previous evening!

As our members gathered on the gallery of the carillon building and the bells of this fine instrument sounded out, local people stopped to look up and listen — they had not heard the bells play for a very long time.

The bells have an automatic player which operated on a narrow perforated roll of thick paper via a mechanism which is completely hidden and therefore something of a mystery still. This has not been used for very many years although there is now some talk of having it put back into playing order.

After a recital played by Mr Workman, members boarded the coach for the main railway station and for their cars and so concluded a meeting which all conceded to have been extremely good and well organised by John Hammond.

CABM's Number Two

THE second issue of the *Bulletin du Conservataire Antonome des Boites a Musique* edited by Member J Horngacher, appeared in February. Our congratulations to its compiler in the quality of content and presentation — real colour photographs are tipped in at intervals.

The issue contains a detailed description of the enterprise of L'Epee and the rise and decline of the French musical box industry. A lengthy treatise on the cause of wear on mainspring arbors and winding keys is followed by a valuable and well illustrated history and technical comparson of the Gloria and Polymnia disc machines.

Mr Horngacher, the author of the celebrated **Critique Methodique** in which he set out corrections and additions to the book *Au Temps des Boites a Musique* by Bonhôte and Baud (page 287, Volume 6) is at his best in original research and is contributing valuable material to the history of the musical box and its development.

OBITUARY

IT IS with regret that we have to record the passing of Member George Boser of Garden City, New York. Although he died on April 29th, 1975, information has only just reached *The Music Box.* **Swiss-born, he was very proud of his collection which contained a number of outstanding pieces including an outstanding Nicole variation box and an Empire-style ormolu-decorated table organ. We extend our belated sympathies to Mrs Boser who, it is understood, is preserving the collection.**

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there who has the other half of the 35156/39385 combination. I imagine that there may be some justified cases for a switch, such as a beautiful box containing an absolutely destroyed movement and vise-versa, but I am not sure even about that.

Again, thank you for your important note.

L C Thompson writes from Lincoln with a salutory tale :

MEMBERS may be interested to know that a 15½in two-comb table Polyphon in a Style 44D case, less most of the marquetry on the lid and with all the tuning weights badly corroded but with 29 good discs realised £710 in a Midlands auction recently. I did not buy it . . .

Editor's Comment : *Mr Thompson obviously has never treated himself to the ethereal beauty of sound produced by a leadless Polyphon which has the ability to turn even popular Western music into a pseudo-Chinese rendition. At a recent sale in London, a box which the auctioneer described as "silent" (it had no comb) made £100. Missing marquetry is easily covered by using, for example, plaster of paris applied with a paint-roller or thick self-adhesive plastic of the type used on shelves. It comes in bright colours. . .*

John Hammond writes from Birmingham :

THOSE members who attended the Birmingham regional meeting and who were unable to obtain a copy of the booklet about the Bournville carillon may care to know that I have a supply available now. Price is 30p each inclusive of postage.

Special thanks to members Len Tew-Cragg of Enfield and A J L Wright of Stourbridge who both drew the Editor's attention to an article contained in the November 1976 issue of the Du Pont Magazine describing the production of the new Symphonion disc musical box, illustrated and described on page 440 of Volume 6. The well-illustrated article in this, the house journal of this international company, describes how production has been established at Werner Eisen's Trossinger Metallstimmenfabrik in the Black Forest.

Unconsidered Trifles

Stradola Player Grand

For some months Musical Components, Lim, have been busy perfecting their new grand player action which is now ready for the market. We had the pleasure recently of inspecting this new action fitted into a grand over forty years old. The reason an old piano was chosen to fit the action into was on account of the old grands being two inches narrower, and the manufacturers of this new player action wished to put it to the most severe test. The Stradola action is the only one at present which can be fitted into any existing grand without building up or altering the case in any degree. The tuner or dealer will have no trouble with this action when repairing or tuning the piano, as the player action can be completely removed in the short time of half a minute. This is no exaggeration as we have seen it performed. The key-board and ordinary action can be removed as quickly as in an ordinary grand, as there are no screws or any adjustments to interfere with the operation. All metal tubing is used, and dealers can rely on the quality of other parts of the action being just as good as in an upright Stradola player. Any part of the bellows, back or front, can be made accessible in one second. The whole contrivance is simplicity itself, and we were assured that long before the first one was completed many dealers had placed orders. Business at the Camberwell factories was never better, both in Lyon pianos and Stradola player actions.

Musical Opinion, May 1915

Members in the News . . .

● Michael Miles of Robertsbridge, Sussex, featured in the January 28th issue of *The Sussex Herald* which carried a picture of his daughter, Clare, standing before his fine interior-wind 24½in Polyphon. He also advises that he has some 26⅝in Monopol discs surplus to requirements if anybody is interested.

● Founder Cyril de Vere Green's collection is the subject of an illustrated news feature in *Utrechts Nieuwsblad* published on January 18. The collection has now been acquired by the Nationaal Museum van Speeldoos tot Pierement through our member Jan-Jaap Haspels and is soon to go on permanent exhibition. *See page 30.*

● Al Meekins of Collingswood, New Jersey was featured in *The Evening Bulletin* for January 3 along with one of his original Regina self-changers. The accent is on the word "original" because Al is in small-scale production of replica instruments in the basement of his home. So far he has delivered two and has five on order at a cost of $5,000 a time. The quality of the new Reginas is outstanding and those who attended last year's AGM in London saw slides of one of Al Meekins' boxes.

● William Kromer of Wayne, Pennsylvania, has been the subject of numerous press notices recently concerning his rebuild of a Wurlitzer Style 18 which he has "made to look like a 125 Wurlitzer". He has also made replica organ facades for playing taped music at showgrounds and produces replacement Wurlitzer friction-drive units and duplex roll drive mechanisms.

● Highlight of Christmas TV viewing in Britain was a 45-minute programme devoted to the fine collection of automata collected together by Jack Donovan. Even the critics rated this as best of the holiday bunch. It was the third year running that a programme featuring his collection has been made. Jack operates the former Graham Webb shop at 93 Portobello Road in London where he has a fine display of instruments for sale including a Racca *Verdi* book-playing pianoforte driven by a hot-air engine. This is *not* for sale!

● President and Editor Arthur Ord-Hume was interviewed on a nationwide radio programme on the occasion of the Birmingham regional meeting and was able to stress the musicological importance of many early items of mechanical music. Meeting secretary John Hammond also took part and David Healey played one of his new organette arrangements. The President also contributed a feature entitled "2,000 years of recorded sound" to the special "100 years of recorded sound" supplement to the February issue of *Hi-Fi News and Record Review.*

Self-acting Piano

continued from page 23

This type of device is clearly shown in the two pictures on page 225 of Volume 7.

The Guinness specimen does have this feature and a look at the picture at the bottom of page 23 will show the sloping bar disappearing out of sight into the top of the weight compartment and pivoted in the roof of the case.

This attachment is not present in the de Vere Green specimen, although a detailed examination may prove that it has been removed at some time in the past.

Is the Guinness specimen the same one as that described in the 1895 report? There is a possibility, and perhaps Mr Guinness could confirm whether or not his instrument came from England.

In summary, then, both pianos are considered to be English and to date from the start of the 19th century. Both were made by John Longman, Clementi & Co (before 1801) or John Longman (after 1801) and, as for those legs, the furniture experts are wrong — they *are* original!

AMS solved

ON page 214 of Volume 6, Member R H Todd of Exeter asked for the identification of a tune-sheet on a musical box in his collection. This had a very distinctive trade-mark in the form of a butterfly-knotted rope with the initial "A" in the left loop, "M" in the right loop and "S" between the ends beneath. This motif was represented centrally on a terrestial globe with a beehive to the right, a cadeceus to the left, scales and sword at the top and what appears to be a bow at the bottom.

The knotted rope with the initials AMS was the registered trade-mark of Silber & Fleming Ltd of 57 Wood Street, London EC, and it appears in the pages of that company's 1884 catalogue.

Silber & Fleming were late period agents for Nicole Freres and other makers. The business also handled automata.

Trade-marks were first registered in England in 1876. Earliest were used by Transylvanian potters 7.000 years ago but their use proliferated around the 12th and 13th centuries. The Germans were the first to form a code of trade mark law in the 16th and 17th centuries.

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.

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TANZBAR. The automatic concertina as shown on page 216 of the summer 1976 "Music Box" wanted by Swedish Collector Bill Lindwall, Tottvagen 14 A,S-171 35 SOLNA, SWEDEN.

PIANOLA and organ rolls wanted. Richings, 51 The Grove, London, W5 5DX. 01 567 6839.

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1202 Mrs Mary Brewis, 1 Oaklands Avenue, Gosforth, Newcastle Upon Tyne, NE3 4YJ
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5 Mrs B de Vere Green, Hydon Wood Lodge, Hambledon, Nr Godalming, Surrey, GU8 4DP
132 Olin Tillotson, 9380 Francis Road, Richmond British Columbia V67 1B1, Canada
234 Frank Kenyon, 501 Rubens Drive, Sorrento East, Nokomis, Florida 33555, USA
256 John D Lyon, 3320 Durango #2, Los Angeles, California 90034, USA
309 J Hunt, 103 Camberwell Grove, London, SE5 8JH
347 Alan Sefton, The Musical Museum, Manly, Iowa 50456, USA
405 Dr F Metzger, 16 Norman Drive, Rye, New York 10580, USA
677 Terry Hathaway, 1802 Kettering Street, Irvine, California 92714, USA
700 Mr & Mrs W E Ullstrom, 1901 SE Sedgwick Road, Port Orchard, Washington 98366, USA
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316 John Kennedy, 21 George Frederick Road, Sutton Coldfield, West Midlands B73 6TB
828 Richard Laskey, 63 rue du 19 Janvier, 92380 Garches, France

Organ Trust set up

DURING December of last year, formation was announced of a charitable organisation known as The Mechanical Organ Trust.

Its establishment was inspired by the export in January of last year of the well-known Amsterdam street organ *De Klok* to Australia. This one particular disposal has provoked something of a furore within the Dutch government as a result of which measures are now being taken to protect the remaining organs of historical value.

Founder of the MOT is Judith Howard, the well-known British authority on Dutch street organs who played a major part in trying to prevent the sale of *De Klok* overseas. She feels that there is a need for an official body in Britain, comparable to the Leon Warnies Stichting (Leon Warnies Foundation) in Holland, reponsible for protecting the organ heritage. The aims and objects of the MOT are " to purchase, preserve, restore and exhibit publicly mechanical organs and other instruments whereby music is mechanically reproduced, and to promote knowledge and disseminate information about such instruments . . . and their preservation, restoration and use ".

In an effort to raise funds, MOT co-founder John Maundrell, is producing a model of De Klok in kit form which will comprise an accurately-moulded plastic case of the organ front together with detailed sets of plans for making the case, pipework and percussion — all to the scale on one-inch to one foot.

John Maundrell has himself produced a remarkably detailed model of this organ which earned him a top prize at the Model Engineer Exhibition held in London in January this year.

All enquires to Miss Judith Howard, BA, GLCM, at 2 Bramfield Road, London SW11 6RB (tel : 01-228 1620) or Mr John Maundrell at 63 New Road, Bedfont, Middlesex, TW14 8HR (tel : 01-890 0459).

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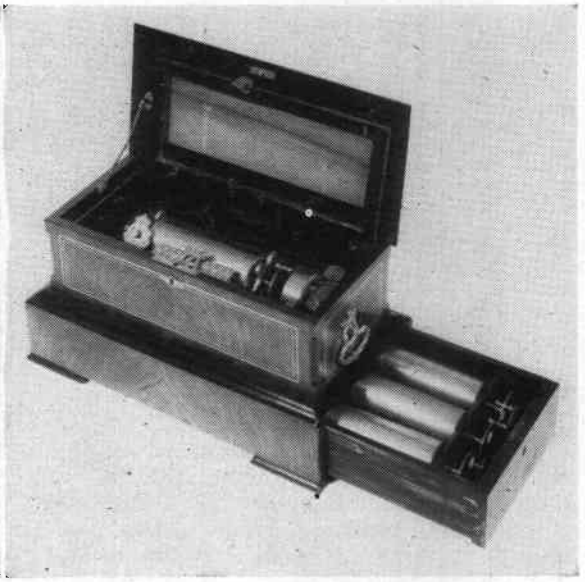
A Gramophone & Typewriter Co. trademark gramophone with plaster dog " Nipper "

A Columbia AB graphophone

A 25¼ inch polyphon disc musical box on stand

A Nicole Frere Overture cylinder musical box no. 46561



A Mermod Frere interchangeable cylinder musical box

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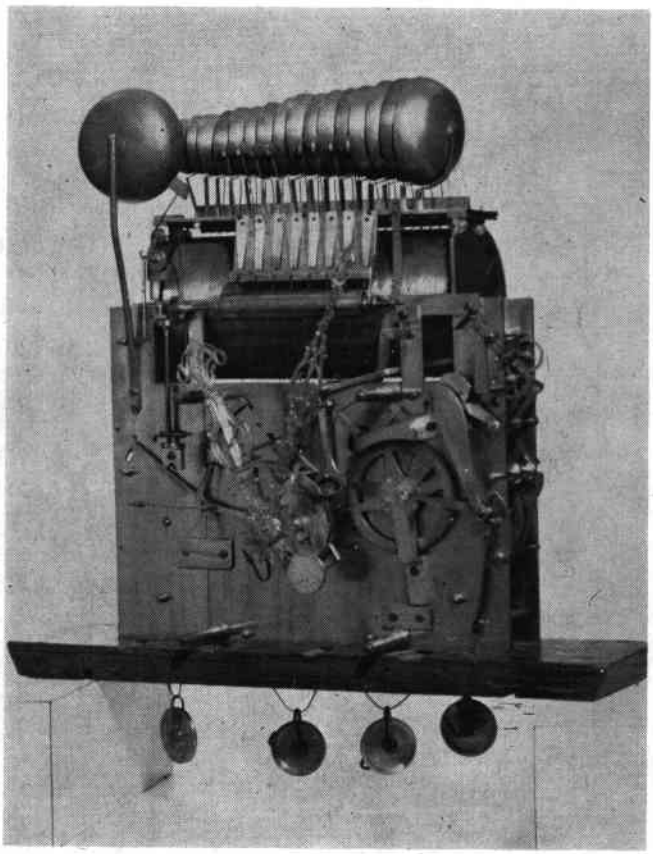

An exceptionally well designed quarter chiming, four train musical clock by William Dutton, London, photographed before overhaul. The massive five inch diameter cylinder plays five beautifully arranged tunes, including Handel's Water Music, on sixteen bells with thirty-one hammers. The hours were originally struck by a Jack on the wall above the dial. The name is engraved on the backplate. The clock was formerly the property of the Seton family, and was built into the grand staircase at Pinkie Manor near Edinburgh. We are proud to offer this masterpiece for sale.

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