

An International Magazine of Mechanical Music

Volume 13 Number 7

Autumn/Fall 1988

Edited by Graham Whitehead

# The Music Box



**Inside** A Visit to the Workshop of Robert Hopp  
Robert Mann Lowne – Inventor  
The Other Side of Edison

**The Journal of the Musical Box Society of Great Britain**

Price £3.00 (£4.25 USA). Available free to members on subscription



## WILL THIS GO CHEEP ?



In need of restoration, this orchestral box has, or rather had, a 'Sifflet' section next to the reed organ, playing through a series of tin whistles. Sadly, the keys for this section have been removed.

To be included in our sale of Mechanical Music on Thursday, December 15th 1988.  
(There is no sale in September).

*Enquiries concerning this sale should be addressed to: Christopher Proudfoot.*

**CHRISTIE'S**  
SOUTH KENSINGTON

85 OLD BROMPTON ROAD, LONDON SW7 3LD. TELEPHONE: 01-581 7611.



Exact copy of the famous Bornand Carrousel Automaton, coin operated, all hand made in ingenious materials with antique music box in base.  
Please enquire for more details.

# Hanspeter Kyburz

5036 Oberentfelden  
Switzerland

Jubiläumsweg 10  
Telefon 064 43 35 59

For 15 years we have been specialising in selling first class music boxes, upright Polyphones, barrel organs, railway station automatons, Orchestrions etc. Our instruments are restored to the highest standards by long experienced Swiss craftsmen. We would be proud to supply your collection.

## We urgently need:

Good Disc/Cylinder music boxes, Polyphones, cob roller organs, Celestina organettes, barrel organs, Phonographs, Automaton, Orchestrions. Please offer your instruments with pictures. Quick reply is guaranteed.

## WANTED

- AUTOMATA - Choice French Pieces by Vichy, Lambert, Decamps, Phalibois, etc.  
ESPECIALLY INTERESTED IN LARGER, MORE COMPLICATED PIECES.
- \$20,000 U.S. REWARD PAID FOR A LARGE BLACKMORE FLUTEPLAYER BY JEAN ROULLET.
- LARGE WELTE ORCHESTRION - STYLE 3 OR LARGER.

I am interested in restored or unrestored pieces of any of the above.

Private collector will pay market prices for these pieces. I'M NOT LOOKING FOR BARGAINS.

Send photos and descriptions to:

**KENNETH GOLDMAN**  
P.O. BOX 1477  
BOSTON, MASS. 02104 U.S.A.  
PHONE 617-444-9539.



## Brian Clegg



SHIPDHAM, THETFORD, NORFOLK.

TEL: DEREHAM 820277,  
AFTER 7 p.m. WATTON 881449.

*Callers by Appointment please.*

**NEW DISC BOXES MADE TO ORDER  
AND RENOVATIONS UNDERTAKEN**

**DISCS COPIED AND NEW DISCS  
FOR ALL MACHINES**

**WE MAKE THE FOLLOWING TO  
SUIT YOUR REQUIREMENTS**

*Cabinets, Bins, Pediments, Star Wheels,  
Bedplates, Motors, Combs.*

**DUPLICATED MACHINES FOR  
SALE OR EXCHANGE.**







# JACK DONOVAN

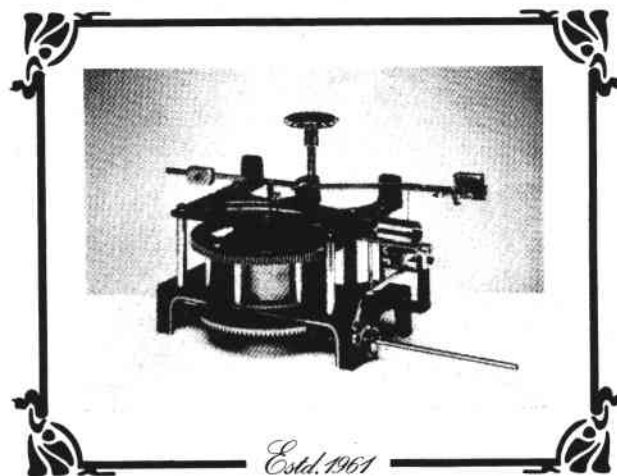
93, PORTOBELLO ROAD,

LONDON, W.11.

Telephone

01 - 727 - 1485

Specialist in  
Mechanical Music  
Automata  
Singing Birds  
Music Boxes  
Polyphons  
Juvenalia  
Unusual Clocks  
Phonographs  
Gramophones  
&c



## ROBERT KANE TRENDER

Specialist Restorer of Disc Musical Boxes

Seven point Five. Drayson Mews. Kensington. London. W8

01.937.3247

# The Music Box

An International Magazine  
of Mechanical Music

The Journal of the  
Musical Box Society  
of Great Britain.

Volume 13  
Number 7  
Autumn/Fall 1988

## Officers of the M.B.S.G.B. and their duties

**President: Jon Gresham**  
Westwood House, North Dalton, Drifffield,  
North Humberside.

**Vice President: Ralph M. Heintz**  
725 University Avenue, Los Altos,  
California, U.S.A.

**Subscriptions Secretary: Ted Brown**  
207 Halfway Street, Sidcup, Kent DA15 8DE.  
**To whom all subscriptions and subscription  
enquiries should be addressed.**

**Membership Secretary: Alan Wyatt,**  
The Willows, 102 High Street, Landbeach,  
Cambridge CB4 4DT.  
**To whom all applications and queries relating to  
new membership should be addressed.**

**Meetings Secretary: Alison Biden,**  
St Giles Hilltop, Northbrook Close, Winchester,  
Hants SO23 8JR.

**Treasurer: Bob Holden,**  
'Ledborough', Church Lane, Great Holland,  
Frinton-on-Sea, Essex CO13 0JS.  
**Recording Secretary: John Phillips,**  
'Langley', Denmans Lane, Fontwell, West Sussex.

**Auditor: Stephen Cockburn,**  
Marshalls Manor, Cuckfield, Sussex.

**Editor: Graham Whitehead,**  
Broadgate Printing Co. Ltd.  
Crandal Road, Exhall, Coventry CV7 9NH.

**Archivist: Peter Howard,**  
9 Manor Close, Felpham, Bognor Regis PO22 7PN.  
**To whom all contributions to the archives should be  
sent, and at whose address the archives are housed.**  
**Auction Organiser & Corresponding Secretary: Roger Kempson,**  
'Thurlestone', 709 Wells Road, Whitchurch,  
Bristol BS14 9HU.  
**To whom all general correspondence should be sent also  
responsible for the organisation of all auctions at Society  
meetings.**

**Advertisement Manager: John Powell,**  
33 Birchwood Avenue, Leeds 17,  
West Yorkshire LS17 8PJ.

**Committee Members:**  
**Reg Mayes:** 171 Barnet Wood Lane, Ashted,  
Surrey K21 2LP.

**Christopher Proudfoot,** c/o Christies,  
South Kensington, London SW7 3JS.

**Reg Waylett,** 40 Station Approach, Hayes,  
Bromley, Kent BR2 7EF.

## Contents

Editor's Notes	
<i>Graham Whitehead</i> .....	212
Society Topics .....	212
Dates for your diary .....	213
Newsdesk .....	215
Frank Holland honoured by German Society .....	215
Paderewski plays at Northleach concert! ....	215
Venues with Mechanical Music – 6	
Varkaus – The capital of Mechanical Music <i>Jon Gresham</i> .....	217
Organ Grinders Chat	
<i>Geoff Alford</i> .....	218
A visit to the workshop of Robert Hopp, organ builder, France <i>Roger Charman</i> .....	220
Robert Mann Lowne – Inventor <i>R. Booty</i> .....	221
The other side of Edison <i>Graham Whitehead</i> .....	224
Musical Box Oddments – 38 <i>H. A. V. Bulleid</i> .....	230
Under the Hammer .....	235
Letters to the Editor .....	236
Classified Advertisements .....	237

**Front Cover:**  
A reproduction of a Victorian Lithograph.

ALL MATERIAL IN "THE MUSIC BOX" IS COPYRIGHT.  
NO REPRODUCTION WITHOUT WRITTEN PERMISSION  
OF THE EDITOR. ALL RIGHTS RESERVED.

The Music Box is printed for and published by the Society quarterly  
27th February, 27th April, 7th August, 7th November, from the  
Editorial Office, Broadgate Printing Company, Crandal Road,  
Exhall, Coventry CV7 9NH.

Back numbers obtainable from:  
Roy Ison, 5 East Bight, Lincoln LN2 1QH.

# Editors Notes

## Musical Box Inflation

Sotheby's last exciting sale must have left many collectors rubbing their hands with glee whilst the would be collector could only shake ones head with despondency. Mechanical music has some similarity with property. Take a two up two down in the inner cities, a hardly sought after acquisition, nevertheless still appreciating at a very steady rate. This could be your run-of-the-mill musical box.

On the other hand take a country property, well appointed and within easy access of the motorway network and hey presto the price goes up and up. This senareo is easily compared with the run-of-the-mill music box against the more exquisite pieces.

Just a few years ago who would believe the possibility of any musical box being sold for over thirty thousand pounds. £32,335 was the net price realised on a Paillard Grand Format Plerodienique interchangeable at Sotheby's latest sale.

But that's not all, bigger musical boxes fetch bigger prices, or so it appears - in the same sale a much larger piece fetched a much larger price, a sixty six key Limonaire concert organ was acquired by a Japanese buyer for a cool one hundred and twenty thousand pounds (£133,800 net).

Whilst this is no guarantee that other exquisite instruments will reach such dizzy heights, in all probability, they will! Owners of similar pieces everywhere must be busy re-assessing the value of their assets. Whilst as with the British property market, the unfortunate "would be" buyer has to take an even greater leap to reach just the lower rungs of the ladder. ■

### Any Volunteers?

Our Advertising Manager, John Powell, having held this post for the last 6 years, has given me notice that he wishes to retire.

Your Editor or John Powell would be pleased to hear from anyone who is prepared to undertake this duty.

## SOCIETY TOPICS



Anthony Bulleid lectures at the Summer meeting.

### SUMMER MEETING 4th June 1988 at Regents College, London

by Reg Mayes

Alison Biden seems to find ever better venues for our meetings, for here we were in a Central London Park, complete with squirrels (furry ones that is) gamboling about the gardens of the College.

Our President Jon Gresham had the pleasure of publically welcoming 4 members from America, including our Vice-President Ralph Heintz, who later on gave a talk on the affairs of the International Society. One of our inaugural members Mr. J. A. Holland No. 37 who had been working in the U.S.A. for many years but is now resident again in England was present, so he and his wife were given a special welcome back.

The next item on the agenda was a talk by Anthony Bulleid. He started off by using slides to demonstrate the geography as well as the railway developments around the Ste. Croix district, where many of the musical box manufacturers were located. One of which was Paillard where more recently typewriters and Bolex cine cameras were made.

He went on to give us a very wide ranging and faceted talk on the development and design features of the different manufacturers, as would be expected of the author of the book, 'Cylinder Musical Box Design and Repair' as well as being a regular contributor to our magazine.

During the course of his talk he stated that he was now of the opinion that Messrs. Billon and others were making the foundation mechanisms for cylinder boxes, consisting of the bedplate; spring; blank cylinder and the governor control, for most of the musical box makers.

On the subject of mandolin musical boxes, he said that the characteristic helical angle of the cylinder pins was always about 7° on six-air boxes which caused any group of notes to play at eight per second. There were variations in the angles for different effect, but the same range of angles was to be found on boxes labelled Tremolo or Guitare.

Space does not allow for all of Anthony's facets of information to be covered here but as one can be assured it was all very well worth listening to.

After coffee Ralph Heintz gave us a talk on the affairs of the American International Society. He congratulated us on our magazine and recalled that when their Journal failed to be published they lost a lot of members. At their next National Meeting in Seattle they would be considering changes to their constitution, for example, to specify terms of office, such as Trustees for four years. We were also told that they have 9 Chapter meetings per year, in addition to 2 - 6 National meetings.

The meeting then went on to the auction under the hammer of Christopher Proudfoot, there were many bargains to be had. Before we went on to the AGM Jon thanked and expressed his own and our appreciation to Anthony and Ralph for their talks and to Alison for organising such a very good meeting, then to Christopher and Roger Kempson and their helpers for increasing our funds. ■



Ralph Heintz, Vice-President of MBSGB talks with President Jon Gresham.

**Report on the  
ANNUAL GENERAL MEETING  
of the "Musical Box Society  
of Great Britain"  
held Saturday 4th June 1988  
at Regents College,  
Regents Park, London**

The Minutes of the Annual General Meeting held on 6th June, 1987 were adopted, and there were no matters arising.

**The President** thanked the Committee and all members for their support of the Society during the year, but had nothing to report.

**The Treasurer** presented Accounts showing the Society 'in the Red' by £2,624.91, and these were discussed in depth. The main reason for the deficit was that five issues of the Journal had been accounted for instead of the usual four, to dispense with the deferred accounting of one issue in 1986.

He made three Proposals which were adopted, as follows:-

- 1) There be no increase in the level of U.K. Subscriptions.
- 2) That the Joining Fee for New members should be increased from the present £1.00 to 50% of the relevant Annual Subscription. He explained the reasons behind the proposal, i.e. in line with the 'Constitution', Members who had not paid their subscriptions by the due date, and indeed did not renew their membership, were none the less considered to be in good standing for a further six months. They therefore receive an extra benefit of 50% of a years membership at the expense of the Society. The present Joining Fee of £1.00, did not cover the cost of setting up the necessary records and Addressograph Plate, let alone compensate for the Printing and Postage of two extra copies of 'The Journal'.
- 3) That **the Treasurer** be authorised to set the Overseas Subscriptions on or before 12th September each year at a level, which in his opinion, would reflect the probable exchange rates at the time the Subscriptions became due.

Following a lengthy discussion it was agreed that the Committee would consider all the suggestions put forward by the Membership.

**The Membership Secretary** reported enrolling 70 new members since taking office, and asked for the return of all Membership Application Forms so that only the new version was in circulation.

**The Subscription Secretary** presented a printed list analysing the Membership Numbers since 1982 which showed an increase over the last year of 13 Members.

**The Meetings Secretary** asked for suggestions from the membership for future Meetings and also volunteers to give presentations at the Meetings. She asked Members attending the Llandrindod Wells Meeting in the Summer to contact her if they could bring an Item from their collection to display to the members and **the Public** on the day. It was hoped that this might attract New Members. The Christmas Meeting to be held in Regent's Park, would include a question and answer session with a panel of experts on hand. Members were therefore asked to come along with questions in mind, and if possible let Allison have them in writing well before the day, in order that the panel can research the answers where necessary. Allison reported some difficulties with the proposed New Years Meeting but by popular request she agreed to try to sort something out. Please watch "The Music Box" for further information.

**The Auction organiser** thanked all those who had been involved with the Auction, Helpers, Buyers and Sellers. The Society should benefit by about £468.00 as a result. He asked for more Members to bring things to be sold, reminding Members that the Auction was good value, and reserves could be set without cost if items did not sell. In response to suggestions from the Membership, it was agreed that the Committee would look into the pros and cons of the Society taking say 15% of the Sale Price perhaps by the introduction of a Buyers Premium. ■

**Advertise your  
Sales and Wants  
in the classified  
section of  
The Music Box**

## Dates for your diary

16th - 18th September, 1988:- Autumn Meeting & Annual Organ Grind - The Metropole, Llandrindod Wells.

The Society plan to arrange a public exhibition at the Llandrindod Wells meeting. It is hoped that many members will bring items for display, maybe it will create interest enough to bring in a few new members!

3rd December, 1988:-

Christmas Meeting: Tuke Common Room, Regents College, Inner Circle, Regents Park, London.

31st December, 1988:-

Christmas "get-together" - Moat House Hotel, Northampton. Celebrate the New Year with your collector friends.

Programme: 5pm - Registration and informal get together. 6pm - Dinner at hotel. 7.45pm - Coach or cars leave hotel for Napton Nickelodeon. At Napton there will be time to relax and chat as well as seeing a part of Napton Nickelodeon's Christmas show, featuring seasonal music and theatre organ presentation.

1st January, 1989

1st January - Cars leave for visit to mechanical music collection at Saddington Hall, by kind invitation of Mr and Mrs Smith.

Hotel package: Dinner, Bed & Breakfast, Single room £31, Double room £28. For further details send S.A.E. to Alison Biden, Meetings Secretary, St Giles Hilltop, Northbrook Close, Winchester, Hants SO23 8JR.

*This programme may be subject to alteration.*

# VISIT TO BELGIUM

**28th - 2nd MAY 1988**

*by Reg Mayes*

Twenty one of us set off to a hotel in Brugge. Fortunately the coach company were wise enough to book our sea crossings with French Co: SNCF, outward bound on the Côte-d'Azur, returning on the Champs-Elysees, so we missed the ill effects of the seamans strike.

On leaving Calais the driver Michael took the coastal route as far as he could before turning inland towards Brugge, this was a far more interesting route than we had taken on previous trips. Our hotel was the Karos which was about five minutes walk away from the Orgel Museum.

The collection in the museum is based on that made by Daniel Dagraed. The museum is very well laid out, with some

118 items, ranging in size from a 5¼" Symphonion disc box (style 28 ?) to a Verbeeck Concert Organ which has 84 keys and some 600 pipes in 16 registers, it measures about 32ft; by 18ft high. All the items are listed in a partly coloured 26 page catalogue which has descriptions in four languages, for a cost of BF 100 say £1.50. There are several records, tapes; postcards of the instruments etc; on sale, it also boasts a cafe.

We had the good fortune to have two demonstration periods, Friday afternoon and Sunday morning, both with Jeanie who looks after the museum. Space will not allow a comment on every instrument. Some of the more unusual items were a



**Mortier and Fasano organs with smaller instruments at the collection of Mr. Ghysels.**

double side-by-side 33½ inch disc machine (with both discs playing together) made by Komet, complete with two bins; a Swiss station musical box; a 'Yacht' piano etc. There are over 30 gramophones and phonographs with names such as Pathe; Edison Mignonphone; Nirona; Robbyphone; E.M.G.; Edephone; Stonia; Decca; H.M.V.; Columbia and Salabert.

There are 16 large free standing organs, many of which are supplied with air from a pipe-line system. We heard most of them to very good effect. I suppose if we had a favourite it would be the 1920 Verbeeck Concert Organ, maybe we were won over because one of the tunes it played was 'There will always be an England'. Our thanks go out to Jeanie for her enthusiastic demonstrations, help and advice. Brugge has a famous 47 bell carillon that we could hear every ¼ hour throughout the city, emanating from their 260ft tower. Many of the civic buildings as well as churches in the city have organs worthy of their surroundings.

On the Saturday our coach took us to Brussels to visit the public collection of Mr. J. Ghysels, he made us very welcome in his good English, he asked what we wanted to hear and when we answered "everything", his eyes lit up, so everything we had. He maintains his own instruments and makes and/or restores the facias. To comment on but a few of his instruments:- The first item we heard was a street organ bearing the name A. Prinsen & J. Ghysels which was a credit to the both of them. There is a paper roll controlled accordion. The big organs we heard:- the largest was a 1923 Mortier 92 key, it bore the inscription 'Noteur A. Prinsen composteur', this no doubt was reflected in the playing of such tunes as 'The flight of the Bumblebee' which was brilliant and what got us all singing:- 'Land of hope and glory'.

The other large organs were:- a 57 key L. Hooghuys Gramont L'Alexandre; 67 key Bacon (Belgium) ex Hooghuys; 48 key W. Bruder of 1907; 78 key E. Fasas Orchestre Moern of 1912; 126 key Beatrix Florestan Chauée which had swell shutters on the facia; 68 key Arthur Bursens which

was made in 1975 when Arthur was 89 years old. The last organ we heard was a Decap Frangoma 121 key Dance organ, its notes are grouped as follows:- Melody 25; Counter Melody, electronic 20; 3rd Song 18; Accompaniment 12; Bass 12: This organ was built in about 1946 and rebuilt in 1960 when a new front was made and the electronic counter melody section was added. There is a LP record available of this organ. All these organs were a pleasure to listen to so we thoroughly enjoyed our visit. Thanks to Mr. Ghysels and his family for making us so welcome.

The rest of the day was spent in the shopping area of Brussels but you believe it, where the coach set us down was a double-deck Carousel which although was equipped with its own hidden organ there was a free standing Mortier of 1902 which we did not hear playing. On the way back to Brugge we had a ride around the city of Gent, we did not stop because there was nowhere for the coach to stop in the centre of the city.



**Double Komet at Brugge Organ Museum.**



**Mortier accompanying double-deck Carousel.**





Double-deck Carousel.

On the Sunday afternoon our driver took us on a trip through other parts of Belgium and onto a little village which is just in Holland and called Sluis. As we alighted from the coach we could hear a Fair Organ, playing as if to welcome us. The village boasted a cap and post windmill which was built in 1730 and it can still grind corn. The church tower has a very good carillon. While returning to Brugge we were deposited at Dammm where we visited the half restored church, where according to the guide the organ was built in 1630. We were not allowed to go up into the organ loft. The return journey continued via a canal boat which had a decorative rear paddle wheel, they served very good wine on the boat so it was just as well for some of us that our coach was waiting for us at the distant quay to take us to our hotel.

All good things come to an end, so we boarded our coach on Monday morning to return to England. Alan and Daphne Wyatt were the principal organisers for this trip and Alan did the honours at each of the museums and generally nursed us throughout the trip, so our sincere thanks go to them for another successful and happy tour. ■

## ERRATA

Carl Frei 172 Keyless

No Dorothy Robinson didn't discover a rare concert organ at Thursford Museum. The correct title for the picture on page 191 of the last 'Music Box' should read Carl Frei 112 Keyless concert organ!

Musical Box Society of Great Britain

### LAPEL BADGES

Available from Ted Brown,  
207 Halfway Street, Sidcup,  
Kent DA15 8DE

£1.70p

Far East £1.80p, U.S.A. \$2.50, Canada \$3.00.

### SOCIETY TIES

Available from Sue Holden, 'Ledborough',  
Church Lane, Great Holland, Frinton-on-Sea,  
Essex, CO13 0JS.

Europe & Near East £4.30

Australia, New Zealand, Far East £4.40,  
U.S.A. £5.00, Canada £5.50.

Prices include postage & packing.

## NEWSDESK

### Frank Holland honoured by the German Society

The Gesellschaft Für Selbstspielende Musikinstrumente E.V. have, on the occasion of their annual meeting on the 18th September 1987, presented Frank Holland with the accompanying certificate enrolling him as an honorary member. This rare presentation recognises Frank's contribution and devotion to the field of mechanical music.

Frank Holland is presented with honorary membership of the German Musical Box Society by its President Dr. J. Hocker.



### PADEREWSKI PLAYS AT NORTHLEACH CONCERT!

The Minuet by Paderewski actually played by the composer himself on a rare Steinway "Vertigrand" Welte reproducing piano was just one of the very interesting and unusual items at the Midsummer Concert at Keith Harding's World of Mechanical Music at Northleach. Delightful music and song on rare and lovely instruments was the order of the evening. Florence Foster Jenkins with her unique version of the Aria

"Queen of the Night" from Mozart's Magic Flute was played on a Hi Fi of 1933! A handmade gramophone with a high papier mache horn. Grieg also played one of his own pieces on the reproducing Welte. It was all quite an experience for the music lovers who attended this second in a series of such Concerts.

Another exciting event for the Harding's was the shipping of a Gemini Music box made in their own workshops to a Museum in Japan. The Gemini is one of the largest new music boxes in the World and these are designed and made in Northleach, quite an achievement. Visitors come from all over the World to visit the Workshops and Museum to order and purchase many such items. ■

# HELP PLEASE

Can anybody identify the maker using this style of tunecard? — David Walch



## NORFOLK POLYPHON CENTRE

(NORMAN & JUNE VINCE)

SPECIALISTS IN:-  
ORCHESTRIONS & ORGANS  
AUTOMATA  
CYLINDER BOXES  
DISC MACHINES

A wide and constantly changing range  
of instruments always available

WOOD FARM, BAWDESWELL, EAST DEREHAM, NORFOLK.

Telephone: Bawdeswell (036-288) 230

(on B1145 one mile east of A1067 junction in Bawdeswell Village).



# Venues with Mechanical Music — 6



## VARKAUS The capital of Mechanical Music

by Jon Gresham

The capital of Mechanical Music is in Varkaus, according to the cover of a brochure produced by the Varkaus Tourist Office.

Inside, this claim is slightly moderated to Varkaus being Finland's capital of Mechanical Music, this title being claimed through the opening of a Mechanical Music Museum (Mekaanisen Musiikin Museo) in the town on the 1st April this year. Such an earth-shattering event attracted a visit by our President during its opening month, whose report this is.

If Finland finished at the top of the Gulf of Bothnia, which it does not, Varkaus would be just to the South east of the centre of that land mass. Finland is dotted with lakes and Varkaus is in the centre of the area with the greatest concentration of lakes.

Anxious for tourist attractions the town has made a former school available, rent and rates free, to the owner of the museum's attractions. The building itself has been beautifully redecorated, is in a good state of repair and forms a dignified background to the collection. The house next door is currently being refurbished for use as a restaurant, run in conjunction with the museum.

The collection is owned by Jürgen Kempf, a German who formerly had his collection at Joensuu, to the East of Varkaus, but was persuaded to move because of the excellent facilities offered to him at the new location.

Herr Kempf is a character with granny spectacles, flowing grey hair, moustache and goatee beard. His guided tour of the museum is filled with humour, showmanship and entertainment as far as one can judge when the tour seen was given in Finnish then translated

into Russian for an escorted Russian group and one is inevitably reminded of the style of presentation perfected by Siegfried Wendel. The visitors, unfamiliar with mechanical music collections, enjoy their visit.

As to the collection itself, it is rather difficult to describe. Herr Kempf cheerfully confesses that he is hated by all other collectors and museum owners and boasts of buying rubbish, which everyone else considers beyond restoration, and resolutely restoring it. This policy is not through choice, but through lack of funds. Most of his instruments, particularly the organs and orchestrions, played reasonably well and were a credit to his technical abilities as a restorer. He is able to breathe life into what others would consider beyond hope or not worth the effort.

Unfortunately the purists would receive many severe shocks to their system at this museum because Herr Kempf does not seem to be bothered by authenticity nor the desirability of restoring instruments to their original condition. On opening an interesting looking key wind cylinder box which seems likely to contain an overture movement a modern Reuge movement is revealed. There is a Pattern 23 Regina disc box complete with disc, which hides the fact that it has no combs.

It would seem that if he fancies an instrument for his collection, and is unable to obtain one at a price he can afford, he just makes it. Gramophones, which were his first interest, are in profusion, the rarer and more unusual exhibits made by himself. He desired a life-sized automata Accordion Player, could not afford one, so made one. It does not have the charm of the originals, some might call it crude, but it is an achievement to have made one at all. He has obvious abilities with accordions, as they are elsewhere added to organs and orchestrions of which they never originally formed part. A large and magnificent orchestration is graced with a complicated mechanical scene which has obviously been made very recently. It could be that a mechanical scene was so damaged it needed complete rebuilding, but one suspects that some original art deco stained glass was virtually wrecked so it was easier to remove whatever remained and fill the gap with the scene, which would anyway please the public more.

As Jürgen Kempf explains, not one visitor in five hundred realises that all the exhibits are not quite what they might seem and he is proud of the entertainment and music he gives to his guests and for this he has reason to be proud.

As a Museum owner, one can always pick up tips from another. At the end of the tour the guests were told that at the end of the season a draw would be held and an old gramophone sent to the lucky winner, would they please write their names and addresses on the back of their tickets and leave them on the way out. Brilliant, to obtain the names and addresses of all one's visitors giving a mailing list and the means of establishing accurately from what areas one draws visitors, all for so little effort and at such little cost is the mark of a shrewd man.

Jürgen Kempf has achieved much with little, one hopes he prospers and feels sure he will. ■



# Organ Grinders chat

by Geoff Alford



The Continental organ festival season opened with two events on the same weekend in May 1988, at Ludwigsburg near Stuttgart and at Linz on the Rhine a little south of Bonn. At Linz it has become an annual event with this being the fourth. It is quite an ideal location, being on a major tourist route and a mainline railway route and has a car ferry crossing to Remagen. In addition, and more importantly for this column, it has the excellent museum of mechanical instruments housed in the Burg adjacent to the railway line. It has a very wide range of mechanical instruments, leaning a little perhaps towards orchestrions but including a number of smaller street instruments including three barrel organs. Since the Music Box report on Linz, three instruments have been installed in the Burg courtyard area, all coin operated (DM2)—a serinette, Franz Oehrlein's model organ grinder 'Uncle Franz,' and a large new De Cap dance organ. As the Burg also incorporates a restaurant, a couple of tourist 'shops' and a museum of torture, it is a major attraction, so it is a pity that prices tend to be on the high side. A coach load of British organ enthusiasts visited Linz during the festival and made a tour of the museum. The trouble with normal public tours of such museums is that they are designed for the general public and frequently exhibits are played extremely briefly, which, as on such occasions, can give rise to complaints from parties with a special interest. Linz museum in particular warrants a much longer visit than the normal 40 minutes or so. When I visited the museum with the G.S.M. we spent many hours there, including a concert on the Welte Philharmonie organ played manually and automatically. Klaus Fischer himself operated the larger instruments on the ground floor whilst a member of his staff responded to requests for any instrument on the first floor which made it a bonanza evening.

On May 12, 14 and 15 the narrow streets of the old wine town resounded to the sounds of street organs. Wilfried Hoemmerich has his Model 33 Ruth playing on the Burg Platz (his 41 keyless Geb. Bruder was at Ludwigsburg) and the Dutch street organ of Helga Krause was being turned, often by hand, towards the top end of the main shopping street. All the remaining entries were street organs, with the exception of the greatly amplified electric guitar which lately seems to get included somehow as an organ entry. We saw a number of familiar faces, including two who had recently obtained 31er Raffin organs after attending festivals for years with 20er models. One was former 90 keyless Carl Frei De Hagenaat — owner Piebe Boomsma from Holland. Regular festival goers are Jan and Lilo ten Cate

(Freisland) whose 45er trumpet Hofbauer I had the pleasure of turning several years ago in Berlin. Another good 'big un' was Edgar Werner's own 45er trumpet organ which is a pleasure to play and a little easier than the Hofbauer I find. On this organ you don't rewind the rolls before removing them. Instead both spools are transferred to adjacent positions and rewinding is done automatically whilst the next is played. Most common organs at Linz were 31 note Raffin roll organs and 37 note Hofbauer micro organs. Many of the former now have the inlaid cabinet option, and one had the metal pan flutes in place of the bourdons, though the builder recommends these for the five register trumpet model, of which no examples were present. There were a couple of the new 20er Raffin reed organs, though neither owner strap carried them for most of the time. I saw none of the new Hofbauer reed organs. The only organ builder present, Herr Schlemmer, was strap carrying his latest product, a 20 note 22 pipe organ with pan flutes and of similar size to, but obviously heavier than, the Raffin reed organ. Unlike the Raffin, the organ is carried flat to the chest and the turning handle is on the end, which I imagine is a better arrangement for the player. A feature of the organ is a small glass panel in the lid for viewing the paper roll. The cabinet was finished to a high standard. At least two other Schlemmer organs were present including a Harmonipan model and the builder also operated a small set of chairplanes as an added attraction which, when folded, was hitched up behind his car.

The seaman's strike prevented my active participation at Linz, but it did give me the interest of finding out about the organs of others. In particular I was pleased to sample the 37 note micro Hofbauer. The organ can be turned remarkably slowly before air becomes inadequate and the pipes start 'gasping.'

This is a great asset of course when required to play for long periods, such as at organ festivals. From the playing position, the control panel is on the left so handy for one's free hand. A combination of 4 position knob and pressing of one of the numbers on the panel selects an appropriate tune, and most owners cello-tape a tune list inside the lid so they know what combination to use. Any tune can be selected at will, repeated as often as necessary, or tunes can be played in a continuous sequence. A green button is pressed to stop the music, otherwise the organ will continue playing after the handle is stopped turning whilst reserve air remains. Under the hinged panel up to eight micro cassettes can be plugged in, each giving up to 10 tunes, so with such capacity there is little need for extra cassette storage space. A wide variety of music is available and arrangements are good. The sealed battery is located to the right below a cover with a charging unit. Length of playing time claimed is 10 hours and charging time is described as 'overnight.' This is easily accomplished by plugging the organ into a convenient mains socket. Battery state is indicated by four micro lights on the control panel and on no account should the organ be played when the red light is indicated as the battery may be damaged. I am told that they have been known to crack, with serious consequences. An electronics engineer organ owner was of the opinion that intending purchasers should have some knowledge of electronics. Clearly such organs cannot be left in a corner and forgotten like more traditional instruments and they do require more care and attention. The owner of the organ I played had obtained it two years previously and had only experienced problems under very damp conditions, which had been easily rectified.

Apart from a 31er Raffin, which I naturally take to automatically as an owner myself, the only other organ I had the



The 'flagship' of Linz museum is a Welte and Sohn Philharmonic organ made in 1925, with 21 ranks of 1100 pipes.



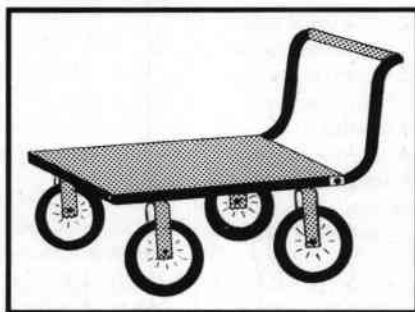


**The phonograph display at Linz.**

chance to play was the 26 key Baum Bacigalupo presented by Karl Hennicke of Switzerland which he had recently finished restoring for Paul Schulze. The Baum Baci was not new to me as I had previously played an identical model owned by the late Richard Wolf organiser of the early Berlin festivals. It is an excellent instrument worthy of the famous name and the Gewecke barrels have good arrangements.

Back to England, and I was delighted to hear of the Nottingham organ festival, which sounds as if it promises to be a good event, though I have not received any details. I understand that organs of all sizes will be taking part. In modest-sized Llandrindod we have still a few vacancies left, including one for a small vintage fair organ. But the variety of organs promises to better 1987, especially if Music Box Society members attending their Autumn Meeting there bring along their instruments and join in, which of course they will be welcome to do at any time without restriction other than the normal courtesy ones for any such event. I was delighted that our good organ friends Kurt Niemuth and Christa Mademann from Berlin will be coming again for the second year running with his 45 keyless trumpet and 26 key barrel organs which were so popular in '87. Also returning for the second time, the Rohmann family from Braunschweig with 31er Raffin and 20er Carl Frei. Horst has built up the repertoire common to both organs during the Winter months and they now play only in unison. Coming for the first time is Alice Hesselbach of Hamburg, accompanied by her son, who is bringing her 26 key Bacigalupo barrel organ. From England I am looking forward to welcoming Ruby Collins with her 46 key Frati barrel organ, restoration of which is currently nearing completion, I am informed by Ian Alderman. Ian will

himself be bringing his new 20 note organ which we only saw in pieces last year, and perhaps a second organ too. Last but not least, our third organ builder attending will be keeping me in the dark until the day for it all depends upon how much time Alan Pell can devote to the development work whether we shall see any of the new models he has on the drawing board. Russell Wattam is bringing his vintage Meloton reed organ and we shall have Dean, McCarthy and perhaps Fussell organs. Apart from all this there are the common or garden Raffin owners like myself. I tried very hard to get a Hofbauer whilst at Linz without success, but I may have laid the seeds for future years.



**Simple organ trolley frame diagram**

Just about the first thing I do when getting an organ is to obtain a trolley or cart for it, so it always surprises me when I find so many other organ owners have no transport for theirs and are even opposed to the idea. To my mind the only acceptable reason for keeping an organ on a table or whatever is that there is no intention of moving it. Even if it is only to be occasionally moved about within a building it is preferable to have it on wheels rather than lifting it and carrying it with the risk of it being dropped. Organs don't bounce

very well. If the organ is to be taken out periodically, having it properly mobile assumes a much greater importance. The main essentials of a good cart are that it should be stable and able to cushion the organ against uneven surfaces. For around the house the raffin type of traditional cart is ideal being an attractive object and stable. Its suspension, however, is very stiff and it is bulky to transport. If cost is important then a converted pram or pushchair carriage makes a very satisfactory compromise. It is light and folds for ease of transport but suffers from a lack of stability and is best for smaller organs. Ideally a custom-made job is best, especially for larger organs. My newest trolley is based on one of the more popular Continental models. An L-section rectangular frame supports the wooden organ platform. To the underside are welded four U-shaped metal legs as forks for the wheels, and a removable handle is attached each side of the rear. The wheel track should be maximised for stability and the handle arms angled away to aid manoeuvrability. The wheel tyres need to be pneumatic and the fatter the better. These tend to be on the small size from industrial sources and I have used the smaller size of child's cycle wheels obtainable from any cycle shop, and the use of wing nuts make them readily removable for transporting. The wider the trolley the greater the stability and the only limiting factor need be that it will go through a door. Generally speaking the lower the trolley the better to get the lowest centre of gravity. The recommended height for an organ is when the forearm is horizontal while holding the handle in mid position. But remember that it is always possible to raise the organ by adding a frame if the cart is too low. The reverse is more difficult! A drawer can be located under the platform to provide storage space and the wheel track is a deciding factor as to how much it will accommodate. Whilst drawers are marvellous for accommodating all those extra items which may be needed, from screwdriver to rainwear, they are less than ideal for music storage. For one thing, bouncing up and down to find new music can be as wearing as the organ grinding, whilst music at the rear of the drawer is difficult to reach. Book storage is a problem because of bulk and incapability of solution so I will confine myself to roll music. For maximum storage combined with ease of access rolls should be stored vertically and for the DIY man it should not be impossible to construct vertical racks mounted behind or on one end of the trolley, each rack tilting outwards to reveal the rolls. This last idea has been developed by Piebe Boomsma for his 31er Raffin. Like many Hollanders he has the knack of practical innovation.

I frequently get people from all over the place asking for information and advice and I am always happy to try to help a fellow enthusiast whenever possible – always providing the work load does not grow too much! May I ask when someone telephones and leaves a message, that they leave their address as well as phone number as responding in the latter manner is an expense I cannot undertake. ■

# A Visit to the Workshop of Robert Hopp

## Organ Builder, France

Roger Charman interviews Robert Hopp



In 1973 at the age of sixteen I was an apprentice to a master organ builder in Munich. Then, while still working on church organs, I became an itinerant guild member in Germany, Switzerland and France, so I arrived in the town of Crillon-le-Brave in 1979.

Sometime later I settled at Crillon-le-Brave where I met Pierre Charial, a puncher of perforated cartons. Thanks to him I caught the mechanical organs virus propagated by the fabulous music that he was writing at that time. Rapidly I built up a train of clients in France, in a few neighbouring countries and even in America, and I restored quite a number of very rare museum pieces.

I have frequently worked on instruments made by Limonaire, Gavioli and Bruder; cylinder as well as perforated carton organs.

Two years ago I restored the Aeolian organ of the Canadian embassy in Paris, today it is owned by a collector. The instrument had been dismantled by second-hand dealers, all the electric cables had been severed with an axe.

I needed four months, a few kilometers of electric wire and thousands of soldered joints before being able to listen to Reger or Gershwin, music written especially for the more than 1500 pipes of this extraordinary organ. I have also worked on XVIIIth century organs described by Dom Bedos of Celles in his treatise.

In 1985 I invented a transposing organ that allows singers accompanied by a mechanical organ, to adapt the instrument to the pitch of their voices. Before this invention performers could not sing the whole repertory proposed by the card punchers; they were limited to songs punched out in their own key.

Everybody who has already sung with an organ can immediately appreciate the advantages of this system existing for the 27 and 42 key organs.

In 1986 I perfected a windchest particularly resistant and easy to make, this has enabled us to reduce the assembly time of our instruments by half which is profitable to our clients!

In 1987 we have worked quite a lot on our latest invention : an optical reading system for organ.

**Q : Which is what exactly ?**

It concerns an instrument having 32 or 56 chromatic keys. The characteristic distinction is in the musical memory : which is not perforated carton or paper, but a paper band which the position of the notes is simply drawn in pencil.

This revolutionary system abolishes the whole panoply of complicated tools necessary to perforate, and from now on allows any amateur to create his own repertory.

We have chosen chromatic scales with logical position of the notes to facilitate the task (bass at one end, high notes at the other).

Another advantage of this method is the possibility to correct a mistake : a simple eraser is adequate to get rid of false notes.

We shall commercialise this type of instrument in musical academies and schools to help debutants learn the scales.

If as I myself, you have attempted to learn to play a musical instrument correctly, you have probably come up against the same difficulty : read the score and play at the same time. My system does not spare you reading the scores, but leaves you plenty of time to do so and once the paper is scored all you have to do is to turn the handle.

The optical reader system is a small electronic device similar to the code-bar reader in a supermarket. Its power is supplied by a sun-cell set in the organ lid, by a battery or the mains.

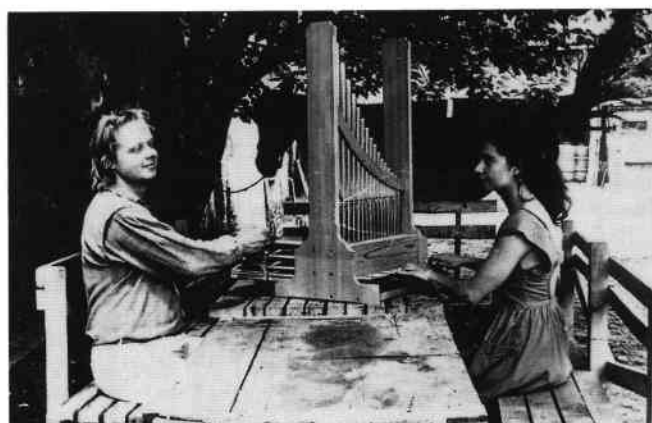
**Q : Do you yourself sometimes turn the handle ?**

I have a small 27 keys transposition organ, that I use for conferences, animated meetings or an impromptu vocal concert. Otherwise I use a 42 keys organ with a repertory of classical music and jazz for concerts in churches and concert halls.

**Q : What are the organ-clocks that you make ?**

Everyone knows that Haydn, Mozart, Händel wrote music for organ-clocks. However, few people can have the pleasure of listening to this music at home.

In the beginning I just wanted to have one for myself, so during a few Sundays I made a small 28 keys programmable organ. Then my wife gave me the idea of adding the phases of the sun and moon. We perforated part of the repertory with classical music written for mechanical organs, so when somebody rings the doorbell our clock plays Haydn melodies, whereas in the morning I'm awakened by "In the mood".



**Q : Who works with you ?**

First of all my wife who is in charge of management and accounting.

Next there are three guild craftsmen organ builders and three students who have come here to learn this extraordinary profession.

**Q : Do you not miss in anyway the profession of a church organ builder ?**

No, I cannot regret it at all because at the same time that we restore and manufacture mechanical organs, we make keyboard positive organs, and also service and restore certain organs in the region.

Also, our working techniques entirely respect the great tradition of organ building. This means that we make all the parts ourselves with infinite care, and that we employ very traditional materials, like bone-glue, shellac varnish, fruit-tree woods, lambskin naturally tanned, etc.

**Q : To conclude, do you have anything else to add ?**

Well, I did almost forget : amateur builders can benefit from our experience; as we supply spare parts or organs ready to be assembled.

Robert Hopp, Les Confines Sud. 84410 Crillon Le Brave, France. Tél: 90.65.65.86.

# Robert Mann Lowne

## INVENTOR

by R. Booty

### Biography

Robert Mann Lowne was noted as being of the professional inventor, and was to be so successful at his work that he could set up business in 1865, as R. M. Lowne, and still have the same company surviving him today as Lowne Instruments Ltd.

Born in Brixton, Surrey, (now South London), c.1844, he married in Finchley, Middlesex, about 1869, living at Leicester House, East End, Finchley. Here he brought up his five children, three girls and two boys, until moving in October 1894 to, "Ravenscroft", Bromley Road, Catford, in South London.

His first patent, for a spirometer, was applied for in December 1870. It was sixteen years later, however, that he came to the subject of mechanical music. On 6th November 1886, Robert Mann Lowne, scientific instrument maker of Finchley, applied for and later obtained, U.K. patent no. 14,334, for an 'Attachment for use with Orguinettes and other Automatic Musical Instruments'. A copy is included with this article, and notes referring to it come at the end of this biography. Two years later he applied for a second patent connected with organettes, no. 13,054 of September 10th 1888. It covered, 'Improvements in or applicable to Orguinettes or other Automatic Musical Instruments', but unfortunately was abandoned and no details have survived.

He applied for a total of 23 patents between 1870 and 1910 on subjects ranging from anemometers, electric logs for ships, improvements in cases of watches etc., electric clocks, atmospheric engines, and submarine electric cables, chains, or conduits. There are examples of Lowne clocks in the Science Museum, London, where also can be found an example of a 'Lowne Patent Atmospheric Engine'.

Robert Mann Lowne died at Catford on 17th August 1929, aged 84. His sons Robert James Mann Lowne and Benjamin Thompson Lowne, both scientific instrument makers, carried on the business. Later Roberts only son, Robert Frederick Mann Lowne, succeeded his father until his own death on 10th May 1983. He was the last Lowne involved with the company.

### Orguinette Attachment Patent

On page 38, Vol. 11 of "The Music Box", there can be found a complete copy of U.K. patent 16,748 of 6th December 1887, taken out by Alfred Maxfield, 326, Liverpool Road, London, N. It couples with an article on endless paper bands on p. 34 of the same volume. At the time of writing that piece, this patent covered the only method of playing endless bands on Seraphones, Celestinas and similar organettes, that I knew of. The patent shows the Orchestrone organette, known in the U.K. as the Peerless Pneumatic Organ, adapted to play endless bands as well as rolls. I surmised that the alterations necessary to the Orchestrone and Celestina, both American made instruments, were carried out in Maxfield & Sons factory in Liverpool Road. (As Seraphone was a Maxfield made instrument, it came ready fitted for endless music).

I also wondered if endless bands were available for these instruments in the States. Ralph Heintz, of California, told me he had never seen an Orchestrone that had been adapted to play endless music. Nothing was forthcoming about Celestina's playing bands though, so I assumed they were not known there either.

Given time, it seems anything previously unknown in the world of mechanical music will eventually turn up, and that is what happened with American endless bands for the Celestina. In Sotheby's London auction on 13th September 1983, there was a mint example of a Celestina in its original wooden carrying case. With it came a collection of rolls and bands, and an apparently homemade device constructed from assorted rods, rollers and bars. This was for playing the endless bands with the instrument, one of which was stamped; 'Patent Endless-Tune Adaptor. 602-2. Mignonette Waltz. MNF'D U.S.A.' So they did have endless bands for the Celestina in the States, but what of that odd contrivance for playing them?

Again, if you wait long enough something will come up. I was searching through American organette patents and was amazed to come upon one which clearly illustrated the adaptor sold at

FIG. I.

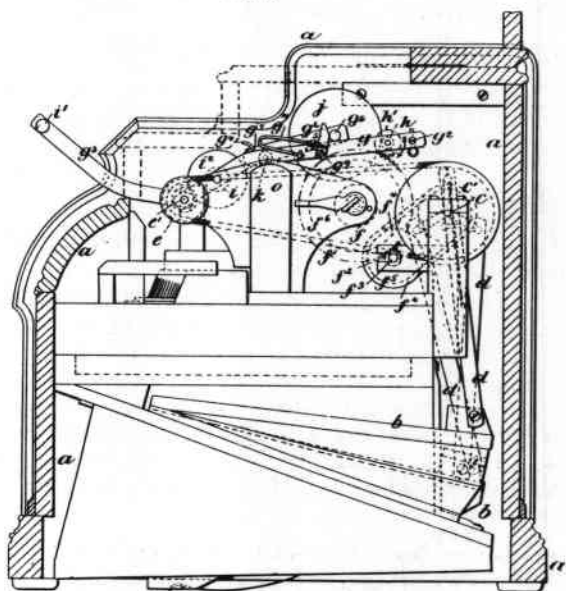
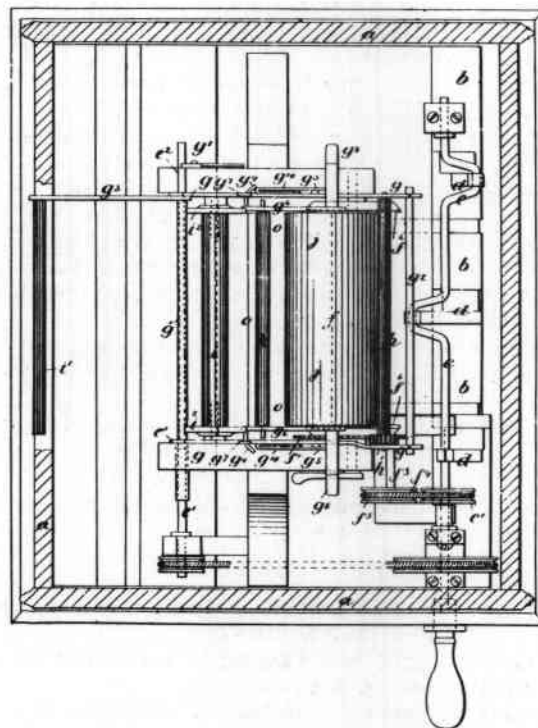


FIG. 2.



Sotheby's. Not only was it patented, but was the idea of an Englishman, Robert Mann Lowne. It also predated the Maxfield patent, which was not applied for in the States.

Patent no. 369,293 was applied for on 6th June 1887, and the fact that it was by an Englishman decided me to search for an equivalent U.K. patent. I found 14,334 of 6th November 1886, shown here. The instrument depicted in the patent is an early model Celestina. The attachment is rather involved, and although well made and finished, would probably prove difficult in use, especially when compared to the later Maxfield idea. (Does any member have a Lowne adaptor they would be willing to photograph in use for the journal?)

#### Who originated the 20 note endless band?

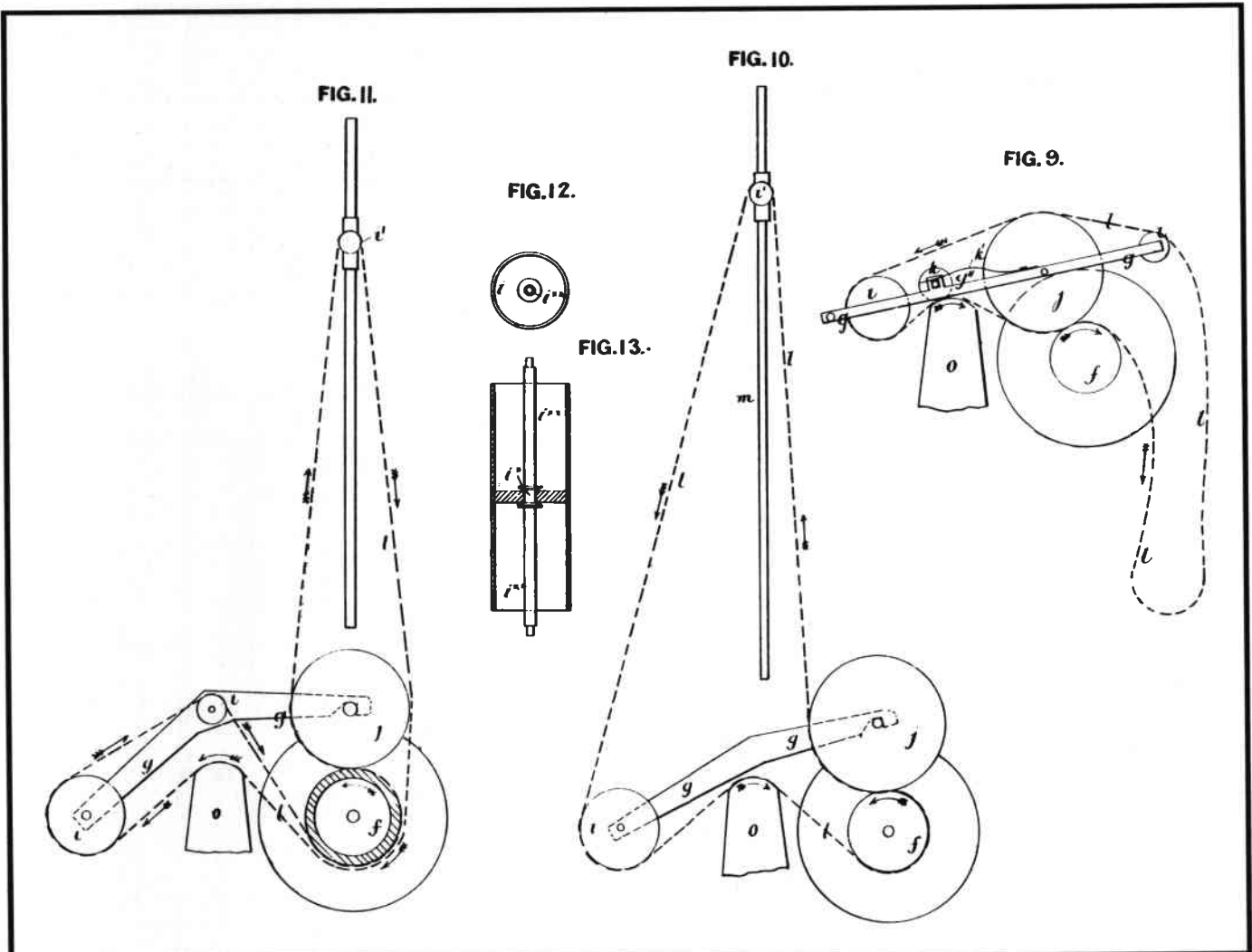
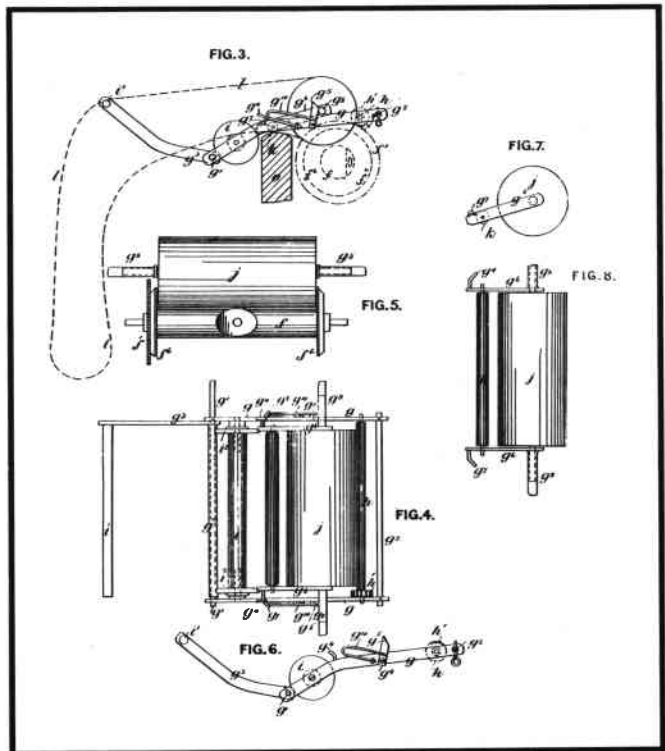
The Lowne patent infers that until then roll playing organettes had no fittings for playing anything but rolls, so therefore endless bands were apparently not being cut at that time. The question then arises, who had Lowne approached to produce endless bands? I would suggest that as both he and Maxfield were at work in North London, it was the latter who agreed to cut bands, and was then to propose their use with the Peerless, in an idea which he was to patent and go on to use in the Celestina, Seraphone, etc.

#### Postscript

George Whight, of 143, Holborn Bars, London, was an early importer of the Celestina from its makers, the Mechanical Organette Co., perhaps from 1884. He died on 7th April 1906, and in his will written in 1903, left money to Blanche Lowne, a spinster of Catford, Kent. R. M. Lowne had a daughter Blanche, and by 1903 the Lowne's were living in Catford. Although Blanche was to marry, at that time she was single, so there is a chance of a connection between Whight and Lowne. Maybe George Whight was the originator of the endless band, and asked R. M. Lowne to design a method for playing them on the instruments he imported?

Special thanks to two people in researching this piece. R. C. Barnard, Managing Director of Lowne Instruments Ltd., Boone

Street, London, S.E., and Robert Sier, fellow society member and author of the book, "A History of Hot Air and Caloric Engines", who was surprised to find I was researching the same Lowne as himself, but on an entirely different subject. Such were the diverse interests of Robert Mann Lowne. (The patent is reproduced with acknowledgement to the Comptroller of H.M.S.O.) ■





## COMPLETE SPECIFICATION.

## Attachments for Use with Orguinettes and other Automatic Musical Instruments.

I ROBERT MANN LOWNE of Leicester House East End Finchley in the County of Middlesex England Scientific Instrument Maker do hereby declare the nature of this Invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

5 My Invention applies to attachments for use with that class of orguinettes and other automatic musical instruments which have heretofore been arranged to play with lengths of perforated paper coiled on a spool from which as the instrument is played the perforated paper is drawn off and coiled on to another roller or spool.

This arrangement although convenient for some purposes such as playing operatic pieces or tunes for square dances is very inconvenient where it is required to repeat a tune as in round dances, hymns and songs because in such case said tunes require either to be removed from one roller to another or arranged in repeats upon long lengths of paper which arrangement is not only expensive but the music takes much time to re-roll.

15 According to my invention I obviate this difficulty and enable such instruments to repeat music any desired number of times without any break or interval between the repeats thereof for running back the perforated paper whilst at the same time I do not lessen the capability of the instrument to play from rolls of music as heretofore when required.

20 My invention is represented in the accompanying drawings in which Figure 1 is a vertical section and Figure 2 a sectional plan of a musical instrument known as the "Celestina" and shewing my attachment applied thereto.

Figure 3 is a side elevation and Figure 4 is a plan of my attachment. Figure 5 is a front view of the weight roller and the ordinary receiver spool. Figure 6 is a side elevation of the frame of above attachment and Figure 7 is an end view and Figure 8 is a plan of the weight roller and a guide roller and of arms carrying the same.

Figures 9, 10 and 11 represent three modifications and Figures 12 and 13 represent respectively an end view and a horizontal section of a modified form of guide roller.

30 In all the figures like parts are indicated by similar letters of reference. *a* is the body or case of the instrument within which the attachment operates, *b* are the bellows in the lower part of the case which are worked by a crank shaft *c* and connecting rods *d*, the dotted circle *e* as shewn in figure 1 represents the roller or spool which ordinarily carries the roll of perforated paper to be played, which latter as it is unwound from the roller or spool *e* is wound on to the roller or spool *f* and in its course from one to the other of such rollers passes over the perforated bridge *o* of the instrument. The above and other parts of the instrument with the exception of my attachment are of the usual construction.

I will now describe the attachment represented at Figures 1 to 8.

My invention relates to attachments to the above classes of mechanical musical instrument whereby endless perforated paper is enabled to be employed in combination therewith.

5 In carrying my invention into effect I remove or dispense with the ordinary spool or roller *e* and I place the attachment frame *g* in the instrument in the position shown in the drawings, the said frame *g* being provided as shown with rods or bars *g*<sup>1</sup> *g*<sup>2</sup> by which the side bars thereof are connected together but such side bars may be connected together in other convenient manner; the bar *g*<sup>1</sup> or it may be a pin is formed at one end to fit the clutch socket on the inner end of the axis *e*<sup>1</sup> which ordinarily receives one end of the axis of the spool or roller *e*, whilst the other end of such bar *g*<sup>1</sup> (or it may be another pin) is placed in the bearing *e*<sup>2</sup> which ordinarily receives the other end of the axis of such spool or roller *e*.

The attachment frame *g* is fitted with a feed roller *h* on one end of which is fixed a 15 toothed pinion *h*<sup>1</sup> which is driven by the toothed wheel *f*<sup>1</sup> fixed on the axis of the spool or roller *f*.

The toothed wheel *f*<sup>1</sup> is driven by a pinion *f*<sup>2</sup> on the axis *f*<sup>3</sup> which latter is driven by a band *f*<sup>4</sup> passing partly around the pulleys *f*<sup>5</sup> and *c*<sup>1</sup>. The toothed wheel *f*<sup>1</sup> and the method of driving the same are those ordinarily in use and form no part of my 20 invention.

The frame *g* also carries guide rollers or sticks *i*, *i*<sup>1</sup> the latter being carried by an arm *g*<sup>2</sup> at one end thereof to facilitate the use of the attachment.

The frame *g* is also furnished with guide hooks *g*<sup>4</sup> and with spring arms or levers *g*<sup>5</sup>.

25 The arms *g*<sup>5</sup> carrying the weight roller *j* and presser roller *k* are provided with hooks or studs *g*<sup>6</sup> which are placed against the hooks *g*<sup>4</sup> and rest on the side bars of the frame *g* whilst the bearings *g*<sup>7</sup> of the weight roller *j* are placed on the frame *g* against the further sides of the spring arms *g*<sup>5</sup> so as to enable the latter continually to press such weight roller against the feed roller *h* notwithstanding any irregularities which may exist in the said rollers.

30 The spring arms *g*<sup>5</sup> are mounted on studs *g*<sup>8</sup> and are acted upon by springs *g*<sup>10</sup> as shewn.

The weight roller *j* is kept in its position endwise by the ends *f*<sup>6</sup> of the winding on spool or roller *f* as shown in Figure 5, and such ends *f*<sup>6</sup> also form a guide for the edges of the endless perforated paper *l*.

35 The object of the presser roller *k* is to press the endless paper *l* on the bridge *o* in order to cause a pressure or tension of the paper where it passes over the apertures leading to the pneumatic levers or reeds of the Celestina or other instrument so that the paper *l* may cover the apertures as nearly airtight as possible. The arms *g*<sup>5</sup> form part of the weight exerted by the weight roller *j* they also form part of the weight exerted by the pressure roller *k* and I would here remark that it is not necessary for the pressure roller *k* to revolve.

To enable the instrument furnished with my attachment as represented at Figures 1 to 8 to play with the endless paper *l* the weight roller *j* and presser roller *k* with the arms *g*<sup>5</sup> are placed within the fold of the endless paper *l* the weight roller *j* with the endless paper *l* around it is then placed in the position shown at Figures 1, 2, 3, 4 in which position the endless paper *l* is pressed between the feed roller *h* and the weight roller *j*. When the feed roller *h* is caused to revolve in the direction of the arrow the endless paper *l* is drawn across the bridge *o* by the combined action of such feed roller *h* and weight roller *j*. The friction of the axis of the weight roller *j* in its bearings in the arms *g*<sup>5</sup> causes such arms to exert an extra pressure on the axis of the presser roller *k* which produces an extra tension on the endless paper *l* as it passes over the bridge *o*. The guide roller *i* is provided with ends *i*<sup>2</sup> which act to guide the edges of the endless paper *l*.

55 The feed roller *h* may receive its motion in the manner above described or it may receive its motion in any convenient way or from a separate source of power not contained in the Celestina or other instrument.

From between the weight roller *j* and feed roller *h* the endless paper *l* passes upward partly around the weight roller *j* to and over the adjustable stick or roller *i*<sup>1</sup> downward in front of the machine whence it rises and passes over the guide roller *i* to the bridge *o* and thence under the weight roller *j* to the feed roller *h*.

5 If the winding on spool or roller *f* of the Celestina or other instrument be made to revolve from left or right it may be used as the feed roller as shown in the modification represented at Figure 9 in which case the weight roller *j* may have its axis run in the frame *g* and the axis of the presser roller *k* may run in slots *g*<sup>11</sup> in the frame *g* and be acted upon by springs *k*<sup>1</sup> to give the required pressure on the endless paper *l* as before explained or the presser roller *k* may be carried by arms *g*<sup>5</sup> as described with respect to the arrangement represented at Figures 1 to 8 in which case such arms would be pivotted to the frame *g*.

In the modification shown at Figure 9 the guide roller or stick *i*<sup>1</sup> carried at the left of the frame *g* is dispensed with and an extra guide roller *i* is placed at the right of the frame *g* so as to enable the endless paper *l* to hang over the right side or back of the instrument but if desired it may hang over the left side or front of the instrument as shown at Figures 1 to 8.

The modification represented at Figure 10 is applicable to an instrument in which the winding on (or feed) roller *f* is removable but revolves in the same direction as in the arrangement represented at Figures 1 to 8. In this modification the presser roller *k* is dispensed with and a guide roller *i*<sup>2</sup> is adjustably carried on a vertical rod *m* fixed to the machine whilst the weight roller *j* is retained in position on the spool or roller *f* by notches formed in one end of the side arms of the frame *g* fitting over the necks or axes of the said weight roller. When placing an endless sheet of perforated paper in an instrument provided with this modified form of attachment the spool or roller *f* is first removed from the instrument it is then placed within the fold of the 20 endless paper and returned to its position in the instrument the guide roller *i* is placed within the endless paper *l* and the latter is drawn over the top of the spool or roller *f* after which the weight roller *j* is placed over the said spool or roller *f* and in its notches in the frame *g*; the axis of the front guide roller *i* is placed in the bearings ordinarily used for the spool or roller *e* or in other suitable bearings, the upper guide roller or stick *i*<sup>2</sup> is passed through the fold of the endless paper *l* and is then raised to a height on its supporting rod *m* sufficient to extend the endless paper *l* without putting undue strain thereon.

35 The modified form of attachment represented at Figure 11 is applicable to an instrument in which the spool or roller *f* (serving as the feed roller) is irremovable from the instrument. This modification is of similar construction to that shown at Figure 10 except that it has an additional guide roller or stick *i*<sup>3</sup> at or about the centre of the frame *g*.

40 When using this latter modified form of attachment the endless paper *l* is placed in position as follows. The endless paper *l* is folded together and passed underneath the spool (or feed) roller *f*, the two folds are then carried up and the weight roller is introduced the paper is then passed over the guide roller or stick *i*<sup>1</sup> carried by the vertical rod *m* and the guide rollers *i* carried by the frame *g* are also introduced into the folds of the endless paper *l*; the course of the latter with this arrangement is as follows the endless paper *l* is passed forwards over the bridge *o* then under and around the front guide roller *i* to and over the guide roller or stick *i*<sup>3</sup> at or near the centre of the frame or arms *g* from which it descends to the underside of the spool (or feed) roller *f* around which it passes to the front of the weight roller *j*; it then ascends to and passes around the top guide roller or stick *i*<sup>1</sup>, descends to and passes loosely the back of the weight roller *j* and loosely underneath the spool or (feed) roller *f* whence it rises to and passes over the bridge *o*. If desired the endless paper *l* may as in the arrangements before described be carried to and allowed to descend at the front or back of the instrument in which cases the top guide roller or stick *i*<sup>1</sup> 55 would be dispensed with and guide rollers or sticks *i* would be used as described with respect to such other modifications.

In order to afford compensation in cases where the front guide roller *i* is not mounted perfectly true or parallel with the feed roller *f* I employ a swivelling roller *i* such as that represented at Figures 12 and 13 for such front guide roller and I preferably construct such swivelling roller by providing a tube *i* with a narrow internal centre bearing *i*<sup>4</sup> supported on a spindle or axis *i*<sup>5</sup>.

5 Swivelling rollers may also be employed in lieu of the other guide rollers or sticks herein described.

I also in order to make the feed roller of the proper size to produce the best effect enlarge the said roller by mounting thereon a longitudinally divided and jointed cylinder provided on the interior with suitable elastic centring bearings and with a 10 suitable bolt or catch to keep it in position around said feed roller.

I have not thought it necessary to show this arrangement in the drawings as from the foregoing description it will be readily understood by a competent mechanic.

Having thus described the nature of my said invention and the mode in which the same may be carried into effect I would have it understood that what I claim in connection with Orguinettes and other automatic musical instruments is.

1. An attachment consisting of a frame or bars *g* provided with guide rollers or sticks *i* and weight roller *j* in combination with the bridge *o* and feed roller *f* of the instrument substantially as herein shown and described and for the purpose 20 stated.

2. An attachment consisting of a frame or bars *g* provided with guide rollers or sticks *i* weight roller *j* and presser roller *k* in combination with the bridge *o* and the feed roller *f* of the instrument substantially as herein shown and described and for the purpose stated.

3. An attachment consisting of a frame or bars *g* provided with guide rollers or sticks *i*<sup>2</sup>, weight roller *j*, presser roller *k* and feed roller *h* in combination with the bridge *o* and the feed roller *f* of the instrument substantially as herein shown and described and for the purpose stated.

4. In an attachment of the character hereinbefore described the employment of 30 swivelling guide rollers acting in manner substantially as shewn and described with respect to Figures 12 and 13.

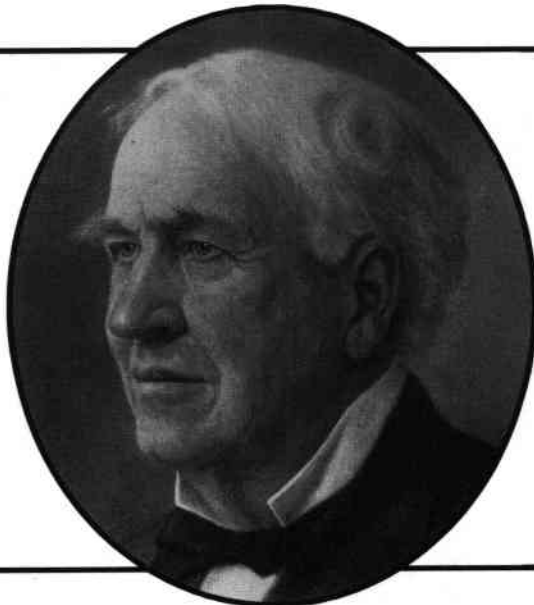
Dated this 5th day of August 1887.

ROBERT MANN LOWNE.  
By Harris & Milla,  
23, Southampton Buildings,  
Agents.

# THE OTHER SIDE OF EDISON

by Graham Whitehead

Thomas A. Edison, born in Milan, Ohio on February 11, 1847; died in West Orange, New Jersey on October 18, 1931. Mr. Edison was the most prolific inventor of all time, and held 1,097 American patents. He is best known for the invention of the incandescent lamp and the development of the electrical industry. His other inventions that created the phonograph, moving picture, telegraph and telephone industries established him as the one person having the most profound effect on the development of the modern world.



*Much has already been written in the "Music Box" of the Phonograph, everyone with even the slightest knowledge of mechanical music will know of its inventor and some of the more popular devices created by this great man. This article deals not with the Phonograph, but with the other side of Edison—his lesser known inventions, his lifestyle, and primarily his winter home where nearly half of his life was spent and where many of his inventions were conceived or perfected.*

*Semikole Lodge in Fort Myers, Florida, USA, formed the winter home and laboratory of the industrialist and great inventor Thomas Helva Edison (1847-1931). Edison went to Fort Myers in 1884 for the first of a long series of working vacations. There he spent countless hours with co-workers to perfect earlier inventions such as the incandescent light bulb, the Phonograph, the moving picture camera and the storage battery. He explored new ideas—he also developed one of the most extensive tropical botanical gardens in the United States. On a miniature river plantation he found Florida Goldenrod, the most promising American plant to produce natural rubber. Mrs. Edison, before her death in 1947, gave the 13 acre riverfront estate to the city of Fort Myers, to be maintained as a memorial to his honour. More than 50,000 people annually, including scientists, horticulturists and historians tour the Florida home, gardens and laboratories of Thomas A. Edison. Last year, your Editor visited the estate and reports on what he saw and learned there, including many facts both trivial and significant, often omitted from the history books.*



Edison apparently had an ear for music as this family photo of around 1920 shows. Seen with daughter Madeleine and grandchildren.

When Edison was only thirty-eight his first wife Mary Ann Stilwell died after a long illness. Edison had been ill too, for throughout his lifetime, he suffered from bronchial troubles. He was having a bad attack then and the doctors taking care of him urged him to seek a tropical climate in which to spend the winters in for the rest of his lifetime. Edison headed for Florida and at first looked at Jacksonville and stayed at St. Augustine. However it was still cold, so he sailed further south and landed on the bamboo-lined banks of the Caloosahatchee river by the sleepy tropical village settlement of Fort Myers. He fell in love with the spot and decided that this was where he wanted his winter home to be. He bought a plot of land and built himself a small cottage. Being a widower, he did not think he would need much more than that for a winter home. Within a year he met, and subsequently married his second wife, Mina Miller. Shortly after the wedding he took her to Fort Myers and they lived in the small cottage, whilst another, more gracious, rambling home was constructed in the grounds.

Few realise that Thomas A. Edison, famous for his invention of the incandescent lamp, the phonograph and hundreds of other devices, was also a master horticulturist—an absolute wizard with plants. Several acres of gardens around his home were used to produce all types of plants needed to help him in his scientific experiments. Edison and his new wife Mina started their planting more than 70 years ago when friends from all over the world, knowing of Edison's interest in horticulture, sent him plants and seedlings. These he tended carefully and he was fortunate in having the services of Edward Stulpner, an expert gardener, to care for the estate in his absences.

Today, the grounds are a maze of strange and outlandish foliage, with giant tulip trees, brilliant flowering vines and graceful palms. Towering above all others is the "Sterculia Alta" from Africa, (it has no common name) which soars 180 feet into the air.

Another imposing spectacle is the South American Rain tree, its leaves collect moisture in the air and then shed water in a light, misty rainfall. An immense Moreton Bay fig tree, planted for research into rubber production, marks the boundary of the neighbouring estate where Henry Ford, Edison's close friend once lived. Edison grew nineteen different varieties of bamboo, he was interested in bamboo as a source of carbon for making filaments for his experimental light bulbs.

Edison also built a swimming pool in the gardens made from another of his inventions – reinforced concrete, reinforced with – guess what – bamboo! The pool, built in 1900 still remains water-tight even today, fed by water from a nearby artesian well. On the side of the swimming pool can be seen a typical Edison invention, a weather proof electric switch. It can pour with rain all day and despite its age the switch is still safe to use.

His main research here took place in the rubber laboratory. Henry Ford and Harvey Firestone were both great friends of Edison and with the development of the motor car the obvious need for rubber increased. When World War I was over, Ford, Firestone and Edison all agreed that the United States would be far better off with having a rubber supply of its own, which would not be affected in the event of another war. It was hoped that rubber could be produced from plants that would grow in the United States and almost 17,000 plants were examined. Goldenrod was found to be the plant most promising in this respect. At Edison's death this research was unfinished and abandoned.

Edison's new house was designed by an architect that he knew in Fairfield Maine, the house was constructed in sections and transported to Fort Myers by boat. It was large enough to accommodate his family and to provide adequate self contained facilities for his guests.

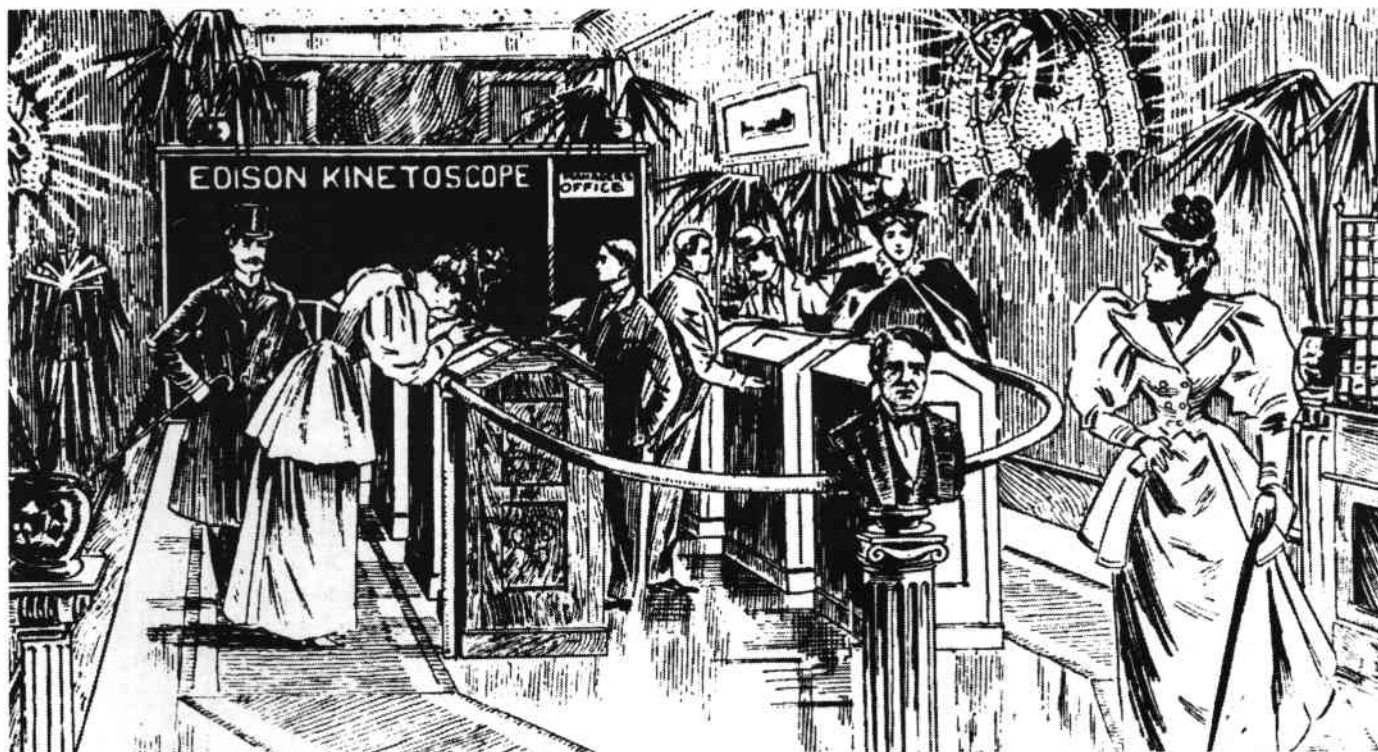


**Mr. Edison's Winter Home in Fort Myers, Florida. The house was built in Fairfield, Maine and shipped to Fort Myers by boat and assembled there in 1886. In 1947 Mrs. Edison gave the property to the City of Fort Myers just before her death. It was stipulated that the property would be maintained in memory of her husband.**

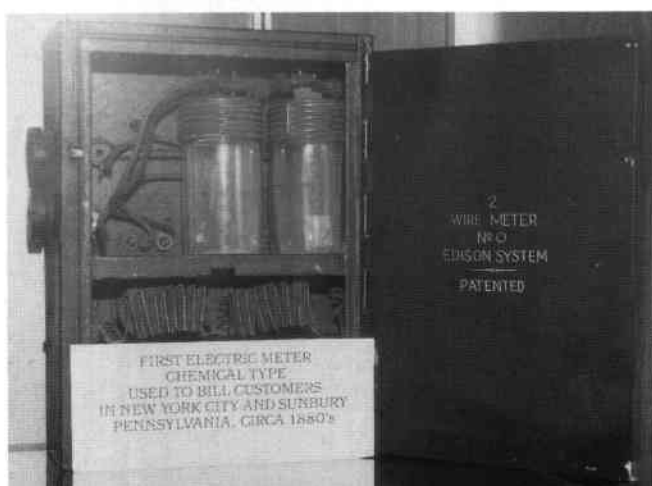


**Edison's laboratory in Fort Myers. It was in this laboratory that Edison and staff conducted thousands of experiments in search of a source of natural rubber that could be produced there in the United States. The weed "Goldenrod" proved to be best. It was never produced commercially because of the development of synthetic rubber produced from petroleum.**





Above: A kinetoscope parlour, Left: Edison's kinetoscope, Below left: First electric meter (Chemical type) used to bill customers in New York City and Sunbury Pennsylvania, circa 1880's. Below: Edison's radio, Model R2.





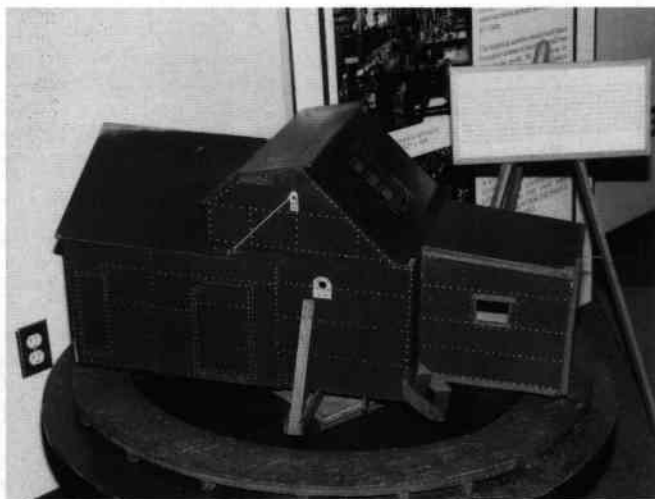
In those days he was not able to make the entire trip on dry land, as the railroads and the highways did not go any further south than Tampa. To get the rest of the way to Fort Myers Edison had to get onto a boat called the "Mail Packet". Mr. Edison's guests began to come to visit, they too had to come down from Tampa on the Mail Packet. The boat was sailed on a thirty day schedule, so whether Edison's guests liked it or not, they were there for thirty days at a time. Edison put the guest quarters upstairs in a separate part of the house. He considered that his guests would appreciate a little privacy and hoped everyone would still be on speaking terms at the end of the thirty-day visit.

The Rubber Research Laboratory was in fact a joint venture by Ford, Firestone and Edison. The process of extracting the rubber, involved stripping the leaves from the plants, chopping the leaves into very fine pieces, adding chemicals and then boiling the rubber from the foliage. Samples of rubber made in this way can still be seen in the laboratory, the molten rubber having been spilled during handling all those years ago. The laboratory remains today exactly as he left it - bottles, test tubes, racks, machinery for the extraction of rubber, glass blowing equipment and cabinets containing hundreds of different plant specimens.

It was in this laboratory that Edison stated "There is no such thing as a failure - a failure could only be a finger post pointing the way to success." Edison conducted 9000 experiments in his attempt to perfect the storage battery, all ending in failure. But when his assistants told him to stop wasting his time, Edison replied, "those are not failures - they are 9000 things we have learned that will not work - 9000 things we won't have to do again". Edison conducted the experiment 41,000 times before he finally succeeded in his invention, which gave the world the battery.

In 1907 Henry Ford made three cars in his back yard, these were to become the prototypes of the production models that started to leave Ford's factory in 1908. Henry Ford gave one of these prototypes to Edison. Every year Ford would send a mechanic to tune up the car and to make sure it was running well for the winter months ahead. The mechanic was also expected to add to the car any modifications that had taken place during the year and that way Edison effectively had the latest model that Ford had put on to the highway. The last change was made in 1927 when the wheel rims were changed to fit a set of Goldenrod rubber tyres, manufactured by Edison's friend, Harvey Firestone. The car is still used every February in the streets of Fort Myers for an Edison birthday celebration run. Alongside the original rubber laboratory now stands the Edison museum where exhibits are randomly displayed showing Edison's inventions and developments, not only developed at Fort Myers but also elsewhere over the period of his lifetime.

Here can be seen a model of Edison's movie studio. It was located not at Hollywood but in West Orange, New Jersey, the



**A model of Edison's first movie-studio, known as the "Black Maria."**



**The miracle of 1879. Edison's first filament light bulb.**

location of Edison's other laboratory. The model is about three feet long. The original building was designed by W. K. L. Dickinson, Edison's British employee from Scotland. Dickinson designed a studio which was completed at the end of 1882, it was built from a pine timber framework covered with tar paper to make it as light as possible. As the model shows, it could be rotated on a turn table, so that no matter what time of the day filming took place, the sun would always be behind the camera. The first film Edison made was called The Sneeze, one of his laboratory assistants sneezed while the camera was rolling and the Sneeze was captured on 32 frames on 35mm film. It takes about 7 seconds to see that movie all the way through.

Many films which were made in this studio, christened The Black Maria were used in the Kinetoscope which was also designed by Edison's assistant, Dickinson. The Kinetoscope, an upright wooden box, contained a bank of spools over which almost 50 feet of perforated, 35mm wide film ran in an endless loop. The moving film passed between an electric lamp and a magnifying lens in the top of the box. A rotating disc with a narrow slit formed a shutter between the lamp and the film, apparently freezing the movement of the film. About forty stationary images every second were presented to the eye in rapid succession, persistence of vision did the rest. The film was driven by a sprocket wheel operated by an electric motor, which was set in motion by inserting a coin. The films lasted 15 - 30 seconds. In the mid 1890's the Kinetoscope was so popular that Kinetoscope parlours were set up across America.

Edison pioneered the home cinema with the home Kinetoscope, which he developed in 1912, at the same time bringing a new standard of safety into the home with fire resistant film, produced for him by the Eastman Kodak company. Until this time all amateur cine film had used the highly inflammable nitrate base.

On the night of October the 21st 1879 the first successful light bulb was produced by Edison and his staff. From this beginning came a first commercially practical incandescent light bulb. Edison also realised that if a chemical was to be replaced gas for heat, light and power that it would have to be produced to a much lower cost as possible with generator's then available. Michael Faraday, an English physicist, discovered the principle of converting mechanical energy to electric energy in 1831, it was 43 years later that a man named Wallis produced the first American made generator which was around 41% efficient. Based on the German made Siemens and the Wallis generators, Edison and his staff developed what they eventually called "The Long Wasted Mary Ann", a generator which was

90% efficient in converting mechanical energy to electric energy. With this much improved generator Edison installed his first three wire electric system in Sudbury, Pennsylvania on 4th July 1883. Homes and streets of the small village were lit by electricity. Sudbury was one of the six selected locations in a coal mining region of Pennsylvania. It was important that a location be selected where gas was expensive and coal to operate the steam engines was cheap. Sudbury was just the place where those comparative costs could be made. Edison's chemical meters were installed so that customers could be billed for electric service.

The tour ends in the Edison Museum, which houses the world's finest collection of Edison's inventions. On display are the first phonograph, ticker tape, and movie projector, and the smallest, largest, oldest and newest of his electric light bulbs. Children love to see the first "talking" doll, invented when Edison's wife requested a special gift for a neighbour's small daughter, and car buffs enjoy viewing Edison's collection of antique automobiles, including a custom-made Cadillac and his 1907 Model T Ford.

A visit to the Edison winter home, which is open daily throughout the year, certainly brings home the realisation of what we owe to this great inventor and pioneer of today's everyday conveniences, now taken so much for granted.



Early ampere meter by Edison.



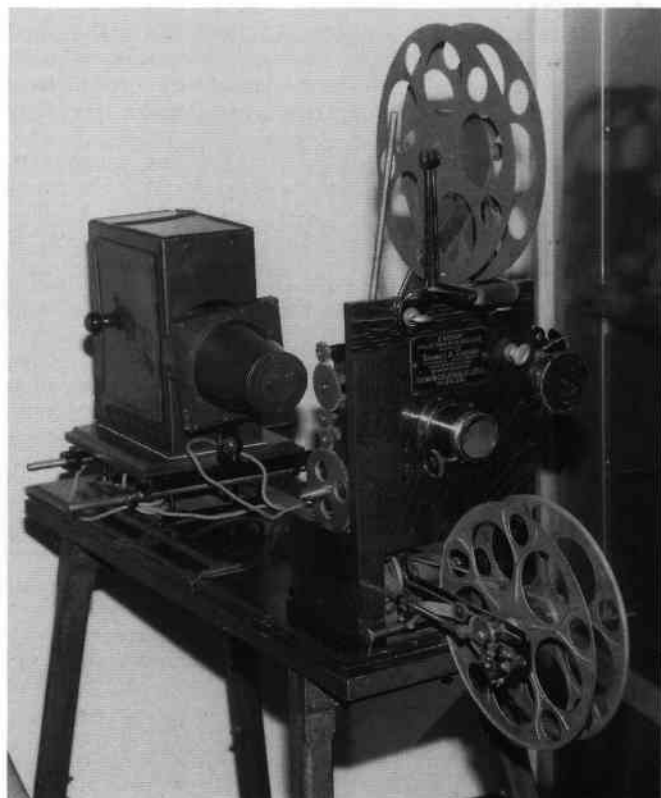
An Edison Radio with a custom made case by Belk.

## EDISON MILESTONES

- 1847 February 11 – born at Milan, Ohio, son of Samuel and Nancy Elliot Edison.
- 1854 Edison family moved to Port Huron, Michigan.
- 1857 Earliest record of interest in chemistry – young Tom Edison had a laboratory in the cellar of Port Huron home.
- 1859 A newsboy and "candy butcher" on the train of the Grand Trunk Railway, running between Port Huron and Detroit.
- 1862 Printed and published a newspaper. "The Weekly Herald," on the train – the first newspaper ever printed on a moving train.
- 1862 August – saved from death the young son of J. U. MacKenzie, Station Agent at Mt. Clemens, Michigan. In gratitude, the father taught Edison telegraphy.
- 1863 Began a five-year period during which he served as a telegraph operator in various cities of the Central Western States, always studying and experimenting to improve apparatus.
- 1868 Made his first patented invention – the Electrical Vote Recorder. Application for patent signed October 13, 1868.
- 1869 Landed in New York City, poor and in debt. Shortly afterwards, looking for work, was in operating room of the Gold Indicator Company when its apparatus broke down. No one but Edison could fix it and he was given a job as super-intendent.
- 1869 October – established a partnership with Franklin L. Pope as electrical engineers. This partnership, although of brief duration, resulted in the invention of the "Universal" Stock Ticker, also the "Unison" device for automatically bringing into synchronisation all stock tickers on a given circuit.
- 1870 Received his first money for an invention – \$40,000 paid him by the Gold and Stock Telegraph Company for his stock ticker. Opened a manufacturing shop in Newark where he made stock tickers and telegraph instruments.

- 1871 April 9 – death of mother, Nancy Elliott Edison. She was born January 4, 1810, the daughter of the Rev. John Elliott.
- 1871 December 25 – married Mary Stilwell, daughter of Nicholas Stilwell, of Newark, New Jersey.
- 1872 Began a four year period during which he conducted manufacturing of telegraph instruments for Western Union Telegraph Company and Automatic Telegraph Company. He had several shops during this time in Newark, New Jersey. He worked on and completed many inventions, including the motograph, automatic telegraph system, duplex, quadruplex, and multiplex telegraph systems; also paraffin paper and the carbon rheostat.
- 1873 April 23 – sailed for London on the S.S. *Java*, called the "Jumping Java." This was Edison's first trip abroad. He demonstrated the use of his automatic telegraph over long circuits and submarine cables. He returned to Newark, June 25, the same year.
- 1875 November 22 – discovered a previously unknown and unique electrical phenomenon which he called "etheric force." Twelve years later this phenomenon was recognised as being due to electric waves in free space. This discovery is the foundation of wireless telegraphy.
- 1876 March 7 – applied for patent on his invention of the "electric pen." Patent was granted August 8, same year. Licenses covering the pen were later obtained by the A. B. Dick Company of Chicago, for the manufacture of the mimeograph.
- 1876 April – moved from Newark to his newly constructed laboratory at Menlo Park, New Jersey. This was the first laboratory for organised industrial research.
- 1877 April 27 – applied for patent on the carbon telephone transmitter which made telephony commercially practicable. This invention included the microphone which is used in radio broadcasting.
- 1877 December 6 – recorded "Mary Had a Little Lamb" on the tinfoil phonograph. This was the first time a machine had recorded and reproduced sound.
- 1877 December 24 – applied for U.S. Patent on the phonograph.
- 1878 February 19 – phonograph patent granted without a single reference. U.S. Patent No. 200,521.
- 1878 April 18 – took the tin-foil photograph to Washington, D.C., to demonstrate it before the national Academy of Sciences and to President Rutherford B. Hayes and White House guests.
- 1878 May-June – in an article in the "North American Review" he foretold ten important uses for the phonograph.
- 1878 July 29 – using the heat of the sun's corona during an eclipse at Rawlins, Wyoming, he tested the microtasmeter, a device for indicating minute heat variations by electrical means.
- 1879 Invented the first practical incandescent electric lamp. The invention was perfected October 21, 1879, when the first lamp embodying the principles of the modern incandescent lamp had maintained its incandescence for more than forty hours.
- 1879 Invented radical improvements in construction of dynamos, making them suitable for generators for his system of distribution of current for light, heat and power. Invented systems of distribution, regulation and measurement of electric current, including sockets, switches, fuses, etc.
- 1879 December 31 – gave a public demonstration of his electric lighting system in streets and buildings at Menlo Park, New Jersey.
- 1880 Discovered a previously unknown phenomenon. He found that an independent wire or plate, placed between the legs of the filament of an incandescent lamp, acted as a valve to control the flow of current. This became known as the "Edison Effect." This discovery covers the fundamental principle on which rests the modern science of electronics.
- 1880 April 3 – invented the magnetic ore separator.
- 1880 May 1 – First commercial installation of the Edison lighting system on land or water was installed on the S.S. *Columbia*.
- 1880 May 13 – started operation of the first passenger electric railway in America at Menlo Park, New Jersey.
- 1880 Ushered in seven strenuous years of invention and endeavour in extending and improving the electric light, heat and power systems. During these years he took out more than 300 patents. Of 1,093 patents issued to Thomas A. Edison, 356 deal with electric lighting and power distribution.
- 1880 October 1 – first commercial manufacture of incandescent lamps began at Edison Lamp Works, Menlo Park, New Jersey.
- 1881 January 31 – opened offices of the Edison Electric Light Company at 65 Fifth Avenue, New York City.

- 1882 January 12 – opened the first commercial incandescent lighting and power station at Holborn Viaduct, London, England.
- 1883 November 15 – filed patent on an electrical indicator using the Edison Effect. This was the first patent in the art of electronics.
- 1884 August 9 – his wife, Mary Stilwell Edison, died at Menlo Park, New Jersey.
- 1885 March 27 – patent executed on a system for communicating by means of wireless induction telegraphy between moving trains and railway stations.
- 1885 May 14 – patent executed on a ship-to-shore wireless telegraphy system, by induction.
- 1886 January – bought Glenmont, a residence in Llewellyn Park, West Orange, New Jersey.
- 1886 February 24 – married Mina Miller, daughter of Lewis Miller, founder of Chautauqua, inventor and manufacturer of agricultural machinery, of Akron, Ohio.
- 1886 December – moved plant of Edison Machine Works from 104 Goerck Street, New York City, to Schenectady, New York.
- 1887 November 24 – moved his laboratory to West Orange. During the first four years of his occupancy of his West Orange laboratory, he took out over eighty patents on improvements on the cylinder phonograph. He established a very extensive business in the manufacture and sale of phonographs and records, including dictating machines, shaveable records and shaving machines.
- 1889 October 6 – first projection of an experimental motion picture. This was a “talkie” shown at the West Orange laboratory; the picture was accompanied by synchronised sound from a phonograph record.
- 1891 August 24 – applied for patent on the motion picture camera. By the invention of this mechanism, with a continuous tape-like film, it became possible to take and reproduce motion pictures as we have them today.
- 1893 Edison-Lalande primary cells supplied power for the first electric semaphore signal installed on a railroad near Phillipsburg, New Jersey.
- 1894 April 14 – first commercial showing of motion pictures took place with the opening of a “peephole” Kinetoscope parlor at 1155 Broadway, New York City.
- 1896 Experimented with the X-Ray discovered by Roentgen in 1895. Developed the fluoroscope which invention Mr. Edison did not patent, choosing to leave it to public domain because of its universal need in medicine and surgery.
- 1896 February 26 – death of his father, Samuel Edison, in Norwalk, Ohio.



**Edison's Projecting Kinetoscope with arc lamp patented 1893/7.**

- 1896 April 23 – first commercial projection of motion pictures at Koster & Bial's Music Hall, New York City, by the Edison Vitascope.
- 1896 May 16 – applied for a patent on the first fluorescent electric lamp. This invention sprang directly from his work on the fluoroscope.
- 1900 This year marked the beginning of a ten-year period of work which resulted in the invention of the Edison nickel-iron-alkaline storage battery and its commercial introduction. The alkaline battery is widely employed as a power source in mine haulage, inter and intra plant transportation, for railway train car lighting and air conditioning, signalling services and many other industrial applications.
- 1902 Worked on improving the Edison copper oxide primary battery.
- 1903 July 20 – applied for patent on long rotary kilns for cement production.
- 1907 Developed the universal electric motor for operating dictating machines on either alternating or direct current.
- 1910 This year initiated a four-year period of work on an improved type of disc phonograph. His work resulted in production of the “Diamond Disc” instrument and records, which reproduced vocal and instrumental music with improved fidelity.
- 1913 Introduced the Kinetophone for talking motion pictures, after spending much time on its development.
- 1914 October 13 – patent executed on electric safety lanterns which are used by miners for working lights. These miners' lamps have contributed in an important degree to the reduction of mine fatalities.
- 1914 Developed a process for the manufacture of synthetic carbolic acid. Designed a plant, and within a month was producing a ton a day to help overcome the acute shortage due to the World War.
- 1914 December 9 – Edison's great plant at West Orange, New Jersey, was destroyed by fire. Immediate plans for rebuilding were laid and new buildings began to rise almost before the ruins of the old were cold.
- 1914 Invented the Telescribe, combining the telephone and the dictating phonograph, thus permitting the recording of both sides of telephone messages.
- 1915 Established plants for the manufacture of fundamental coal tar derivatives vital to many industries previously dependent on foreign sources. These coal tar products were needed later for the production of wartime explosives. Mr. Edison's work in this field is recognised as having paved the way for the important development of the coal tar chemical industry in the United States today.
- 1915 October 7 – became President of the Naval Consulting Board, at the request of Josephus Daniels, then Secretary of the Navy. During the war years, he did a large amount of work connected with national defence, particularly with reference to special experiments on over forty major war problems for the United States Government.
- 1927 Began a four-year period during which Edison was searching for a domestic source of natural rubber. After beginning the serious duty of botany at the age of 80, he collected and tested in his chemical laboratory over 17,000 different plants. Some rubber was found in about 1,200 plants and commercial quantities in 40 species. Goldenrod (*Solidago leavenworthii*) was chosen because it would grow anywhere in America, was a one-season crop, the reaping of which could be done by machinery. This project involved the vulcanisation of Goldenrod rubber shortly before his death.
- 1928 October 20 – received a special Congressional Medal which was presented by Andrew W. Mellon, Secretary of the Treasury.
- 1929 October 21 – commemorating the Fiftieth Anniversary of the incandescent lamp and in the presence of President Hoover, Henry Ford and other world leaders, Mr. Edison re-enacted the making of the first practical incandescent lamp.
- 1931 October 18 – died at Llewellyn Park, West Orange, New Jersey, at the age of 84; survived by his wife, Mina Miller Edison, his four sons, Thomas Alva, Jr., William Leslie, Charles and Theodore, and his daughters Marion Edison Oser and Madeleine Edison Sloane.

*An extract of a compilation by John C. F. Coakley, Historian of Edison Pioneers, for which the Music Box gratefully acknowledge.  
Further information available direct from Edison's Winter Home, Fort Myers, Florida, U.S.A.*

# Musical Box Oddments

By H. A. V. Bulleid

Number 38

Richard Wagner (1813-1883) was in every way so colourful a character that he induced numerous biographies and dramatisations of which some had truth and fiction inextricably intermingled. All I can add is a useful list of dates. His tunes are an undoubted attraction on many musical boxes.

Rienzi	1842
Der Fliegende Holländer	1843
Tannhäuser	1845
Lohengrin	1850
Tristan und Isolde	1865
Die Meistersinger	1868
Das Rheingold	1869
Die Walküre	1870
Siegfried	1876
Twilight of the Gods	1876
Parsifal	1882

Tunes from the first four of these operas are fairly common on cylinder boxes, the later ones less so.



Fig. 1. Typical 1890s Bistro table, the plain hardwood top with glazed aperture over the musical movement and with coin slot.

## Bistro Tables

A slight connection between cylinder musical boxes and gambling occurred in bistro tables, see Fig. 1. In their plain hardwood surface was a coin slot, and a central glass window through which could be seen a nickel-plated movement and a notice proclaiming

PUT 10 Cent. in the SLOT

If you win you will receive a token for refreshments of value from 10 centimes to 1 franc.

After putting in the 10 centimes and hearing the tune, if you were lucky this notice would disappear from sight revealing a shield inscribed GAGNÉ (WON); and a token would then slide into the pocket fixed to the side of the table, while the notice reappeared. When the springs had run down, a notice FERME (CLOSED) appeared in the glass window and a metal bar shut off the coin slot. The mechanism is shown in Figs. 2 and 3.



Fig. 2. The winding handle is shown parked inside the table and beyond it the levers for the CLOSED notice and for obstructing the coin slot when run down. The coin mechanism accepted undersize coins without providing any music.

There were at least two makers of these movements, one being Mermod, and they found it convenient to invert the usual layout with an extended bedplate to carry the long screw for the tokens and space for four springs if desired. There must have been several different types; the one seen here, unknown maker's serial number 5248 stamped on the great wheel, has a 7½ inch by 2 inch diameter cylinder playing twelve airs 2-per-turn on a 59-tooth comb. Not surprisingly the playing time per tune is only just over 20 seconds. An interesting peculiarity is that the waltz from *Les Cloches de Corneville* occurs twice; the tune was said to be so popular that bistro clients would go berserk if they had to wait more than five tunes (and 50 centimes) before hearing it again. It was also rumoured that optimistic clients hoped to work out a gambling formula based on the position of the repeated tune. Astonishing optimism.

The bistro proprietor's job was to unlock the table top, collect the takings, wind up the springs, place the bridge piece at its marked position over the token screw, and slot in the tokens. The bridge piece actuates the levers for the CLOSED notice when it gets to the end of the screw after the last token. The great decision must have been, what proportion of tokens of what values to place in the screw – and how many blanks to leave. One worry for the makers was the strong-armed proprietor who wound up the extra-strong springs with enough vigour to demolish the pegs on the male Geneva stops – these were duly strengthened. The later Mermod type of governor with two-start worm was welcomed as it cured the malaise of a machine accepting a coin and then failing to start.

A rather more obvious design change in the table was triggered by drink and debris entering the coin slot which was wisely moved from top to side. Undersized coins fell out of the slide before reaching the trip mechanism to start a tune.

These photos and data were kindly supplied by member Etienne Blyelle-Horngacher of Geneva.



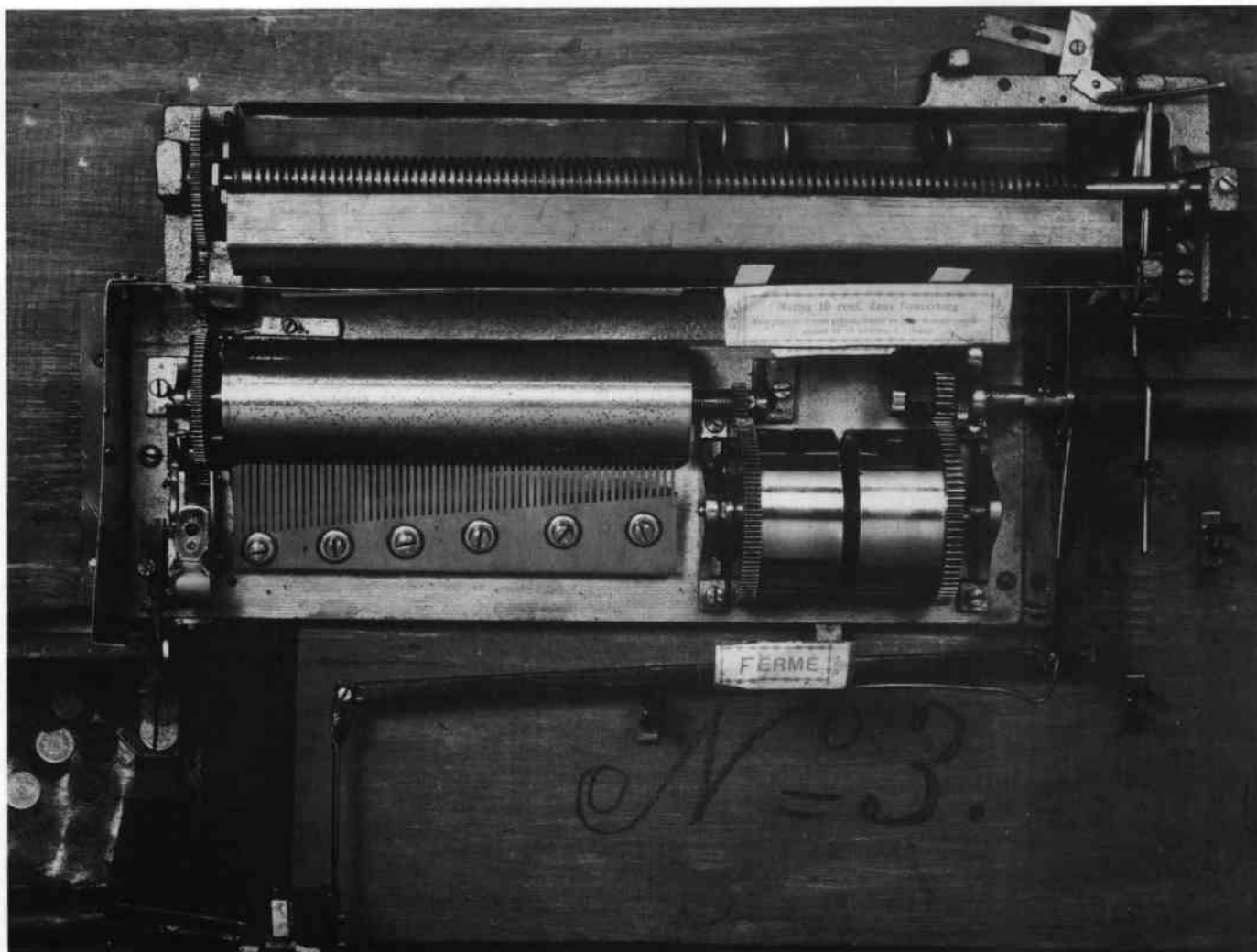


Fig. 3. The springs were stronger and cylinder gears smaller than normal on these movements, to give longer playing time per winding. The 4-spring models would run 88 turns of the cylinder that is 176 tunes at one winding. The 2-spring model here shown ran 88 tunes. The square-threaded screw at the back has 90 threads to allow for 4-spring models; here, the bridge-piece is placed about half-way along, as shown, to be sure it will reach the end and thereby actuate the CLOSED sign before 44 revolutions of the cylinder, after which the Geneva stop cuts off the spring power. The screw makes one rev. per cylinder rev., so you can only get a token after alternate tunes.

## David the younger

It is fairly well known that David Cadet was making musical boxes in Geneva in the 1825-1845 period, examples of his work being recorded in *The Music Box* on Vol. 13 Page 93 and Vol. 9 Page 396. Equally well known is that a maker surnamed David was also working in Geneva at that time.

Yes!! Of course you've spotted it, they are the same person. We have member Olin Tillotson to thank for reminding us of the blindingly obvious fact that cadet simply means younger – both in French and in English. We have never worried about seeing the renowned watchmaker Moulinié Ainé (the elder) listed under M, and we must now properly list David Cadet (the younger) under D.

Professor Chapuis, who was very thorough and accurate in listing all makers for his book *The History of the Musical Box*, neatly confirms the above by listing maker David but mentioning no Cadet.

## Henriot

Henriot musical boxes are typical top-class made-in-Geneva movements recognised mainly by their characteristic embossed tune sheets. Several examples have been reported, with a summary in *The Music Box* Vol. 9 Page 357. I think it is generally accepted that Henriots are all key-wound, are earlier than about 1850, and mostly have plain cases. I have listed all I can trace in the accompanying table; serial 11435 is one of only two overture boxes so far reported and its tune sheet is shown in Fig. 4.

Serial no.	Airs	Cylinder length, ins.	Number of teeth	Notes
10463	8	12	87	Blue tune sheet
11314	3	8	156	Overtures. Cyl 2½ dia.
11435	4	10¾	166	Overtures. Cyl 2½ dia.
11544	6	10½	103	
11780	4	8	—	
11913	8	12	—	
12132	8	12	—	
12140*	8	10½	76	
12145*	8	10½	76	
12242*	6	10½	103	Blue tune sheet
12273*	4	7½	114	
12324	6	10½	103	
12493	6	11	—	
12683	6	10¾	—	
12743	4	8	107	
14595*	4	7½	114	
14614	—	—	—	
14670*	12	11¼	109	2-per-turn. Cyl 2½ dia.
14677	8	12¼	—	
15116	8	10½	76	BADEL A GENEVE on beplate
15505	—	—	—	

### Notes on the table

It is very probable but not absolutely certain that all these boxes were made by Henriot. All appear to be supplied by the same "blank" maker and all are single comb key-wound type with 2 inch diameter cylinder except where otherwise noted.

The bedplates are stamped HENRIOT or HENRIOT A GENEVE on nos. with asterisks and probably some others.

Nos. 12140 and 12145 have the same tunes.

Nos. 14614 and 15505 are in the Murtoth Guinness collection.

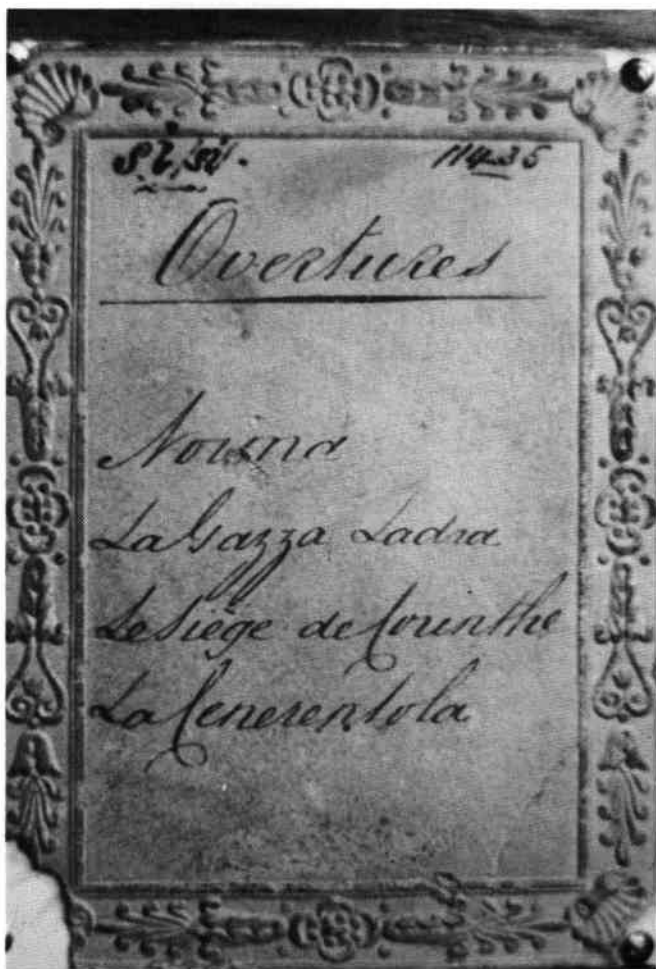


Fig. 4. Typical embossed Henriot tune sheet, 3½ by 2¼ inches, for serial 11435. English spelling of overture is unusual, so is upright use of the card. Latest overture is *Norma*, 1831. These small embossed cards, which contain no hint of musical box application, may have been a local supply of visiting cards.

Note that these serial numbers span 5,000 boxes, so it is impossible to say whether our sample of twenty (0.4%) are typical of Henriot output. It is also rather baffling to ruminate on what happened to numbers 1 to 10,000, if they were ever made.

The most significant box in the table is serial 15116. It has all the Henriot characteristics, including its serial number in the usual small figures running up the left side of the bedplate and the typical embossed tune sheet; but the bedplate is stamped, as usual in the back left hand corner, *BADEL A GENEVE*.

If we assemble what we know about Henriot and Badel, this is the score . . .

- |                |   |
|----------------|---|
| <b>Henriot</b> | 1. name stamped on some movements                                   |
|                | 2. therefore duly reported as a maker in Clark and subsequent books |
|                | 3. not listed as a maker by Prof. Chapuis                           |
|                | 4. no appearance at any Exhibition                                  |
| <b>Badel</b>   | 1. name now reported on one typical movement                        |
|                | 2. listed as a maker of the period by Chapuis                       |

Failure to be listed by Chapuis as a maker is strong evidence although of negative type.

There was a time when a name stamped on a bedplate was assumed to be a maker's name, but it has now been thoroughly proved that this was just as likely to be the name of an agent or retailer. If Henriot has been accepted as a maker purely on this doubtful evidence, then the probability is that Henriot boxes (as I expect we shall always call them!) are really Badels. I hope more evidence will come to light; and in particular a search for the real identity of Henriot in the Geneva archives from 1830 to 1850 would probably provide the vital clue.

CIMA (International Centre of Mechanical Art) is the main museum at Ste. Croix and is very well arranged on three floors of Paillard's 1900 factory. The layout was given on page 32 of *The Music Box* for Spring 1985, soon after CIMA opened. It is now run by Mme. Echavé of the local Swiss Tourist Office with M. Tripet as Curator. Musical boxes of all types and automata are the main attractions, and M. Tripet keeps the extensive display fresh by borrowing items for a year at two at a time from eminent collectors. There is also a working craft section in which automata are made and restored.

Of particular historic interest at CIMA is the display of production machines used in the manufacture of musical boxes. As well as a number of minor machine tools, this display includes the horizontal milling machines used for cutting the slots between comb teeth, which are of conventional design. The only important special-purpose machine on show is that used for pricking and drilling cylinders, two at a time, as shown in Figs. 5 and 6. Its construction date is not known, but the design is too assured to be a prototype and I expect it was made no later than 1890 – and certainly no earlier than 1880.

This machine consists of a heavy cast iron bedplate supporting an adjustable holder for a pair of cylinders, which can be set very accurately to any rotational position by means of a dividing head as seen at the left end of the bedplate in Fig. 5. Cylinders up to about 20 inches can be accommodated.

Two cord-driven drilling spindles are mounted on a sliding head above the cylinders, and their position is controlled by an adjustable peg. This peg engages a series of notches in a bar fixed to a rail above the bedplate; it is lifted and moved to the next notch by the curved handle.

The notched bar is chosen to suit the number of tunes on the cylinders, its notches then being the same distance apart as the teeth of the mating combs. A large flat cam is also chosen to suit the number of tunes and secured to the rail as shown in Fig. 6. The notched bar is then pressed against the first step of the cam and bolted to the rail.

Then by rotating the cylinders as called for by the music score, the holes for the first tune are drilled tooth-by-tooth as the drilling head is moved along the bar notch-by-notch. On completing tune 1, the cam is rotated to step 2, the notched bar engaged with step 2, and the process repeated.

The machine is referred to as a pricking and drilling machine, (*piquer et percer*) and it seems certain that the processes were combined on this type of machine. The "cottage industry" days, which included drilling pricked cylinders, were rapidly coming to an end in the 1880s.

## Transport from Ste. Croix

In a footnote to Chapter XVIII of his *History of the Musical Box*, Professor Chapuis writes . . .

the building of the Yverdon-Ste Croix railroad greatly improved transportation. Previous to that, shipment had had to be made by way of Boveresse, above Fleurier, along the Neuchâtel-Pontarlier line.

There seem to be no records to confirm this, and M. Scholz, the station master at Ste. Croix, who is an expert on the railway history of the area, thinks shipments were more likely made from the two small stations at La Cluse, just south of Pontarlier, see Fig. 7. There are three factors supporting M. Scholz, (1) La Cluse is nearer to Ste. Croix (and much nearer to L'Auberson) than Boveresse, (2) the road was better and less hilly and (3) there was the advantage of two stations, one on the same 1860 Neuchâtel-Pontarlier line and the other on a line built in 1875 from Pontarlier to Vallorbe and thence to Geneva, Lausanne and Berne. Incidentally this was a heavily graded single-track line and a torment to all concerned with Paris-Lausanne-Simplon travel so it was finally closed about 1945, a direct route by-passing Pontarlier with a 3¼ mile tunnel just north of Vallorbe having been opened in 1915.

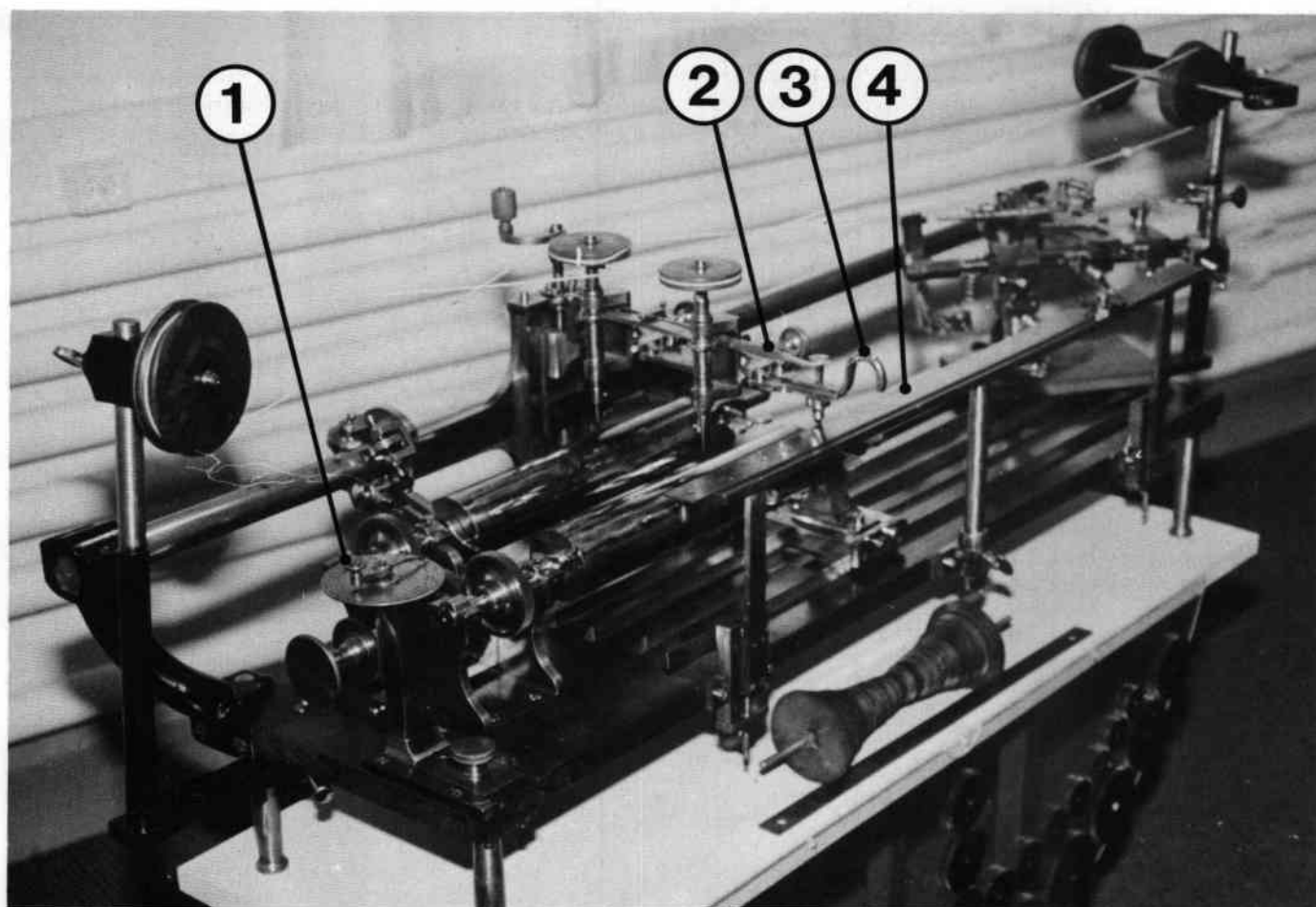


Fig. 5. Dividing head (1) rotates the cylinders. Drilling is by depressing lever (2). Curved handle (3) moves the drilling head from notch to notch on bar (4).

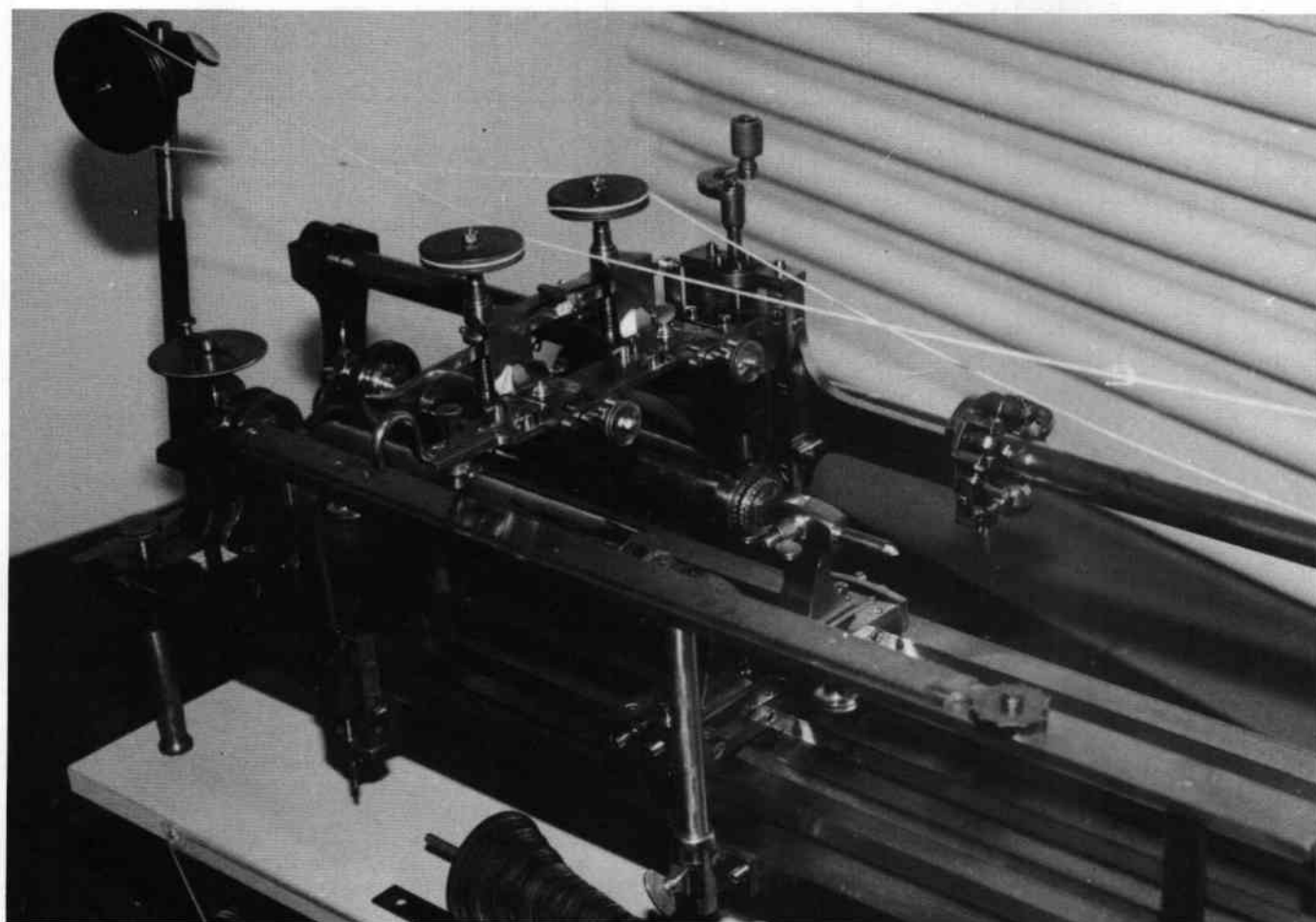


Fig. 6. Another view of the cylinder drilling machine, showing the notched bar engaging a step of the 12-tune flat cam on the top rail. The screw handle at the back of the drilling head is for adjusting head height to suit cylinder diameter.

It is very unfortunate that all Ste. Croix trade records were lost in fires, because the transport problems must have been formidable even without the interruptions experienced every winter. The Chapuis book reports on page 183 that the Paillard firm alone produced 10,000 cartel boxes in one year. The date is not given, but in February 1872 the Canton authorities were asked to introduce wood-carving (sic), the request adding "we need annually from 50,000 to 100,000 of these articles." (i.e. musical box cases).

If we assume 75,000 in a year, and take 10 lb (the weight of a standard PVF with 6 inch cylinder) as the average weight, then the weight shipped out comes to 750,000 lb, - 15,000 lb per week. Adding the same amount for incoming blanks and other raw materials, and an allowance for packing, the weekly transport load concerned with musical boxes alone must have exceeded 40,000 lb, that is over three tons per day. The distance to La Cluse is just over ten miles and a horse would do well to average 5 mph with his cart and one ton load, making it nearly a day's work with loading and unloading. So the railway's arrival at Ste. Croix in 1893 must have caused much repeating of the comment, better late than never.

Fig. 8 is included as a reminder about the modest condition of the main road from Ste. Croix via L'Auberson to la Cluse.

*Figures 5, 6 and 8 kindly supplied by the Swiss Tourist Office and CIMA.*

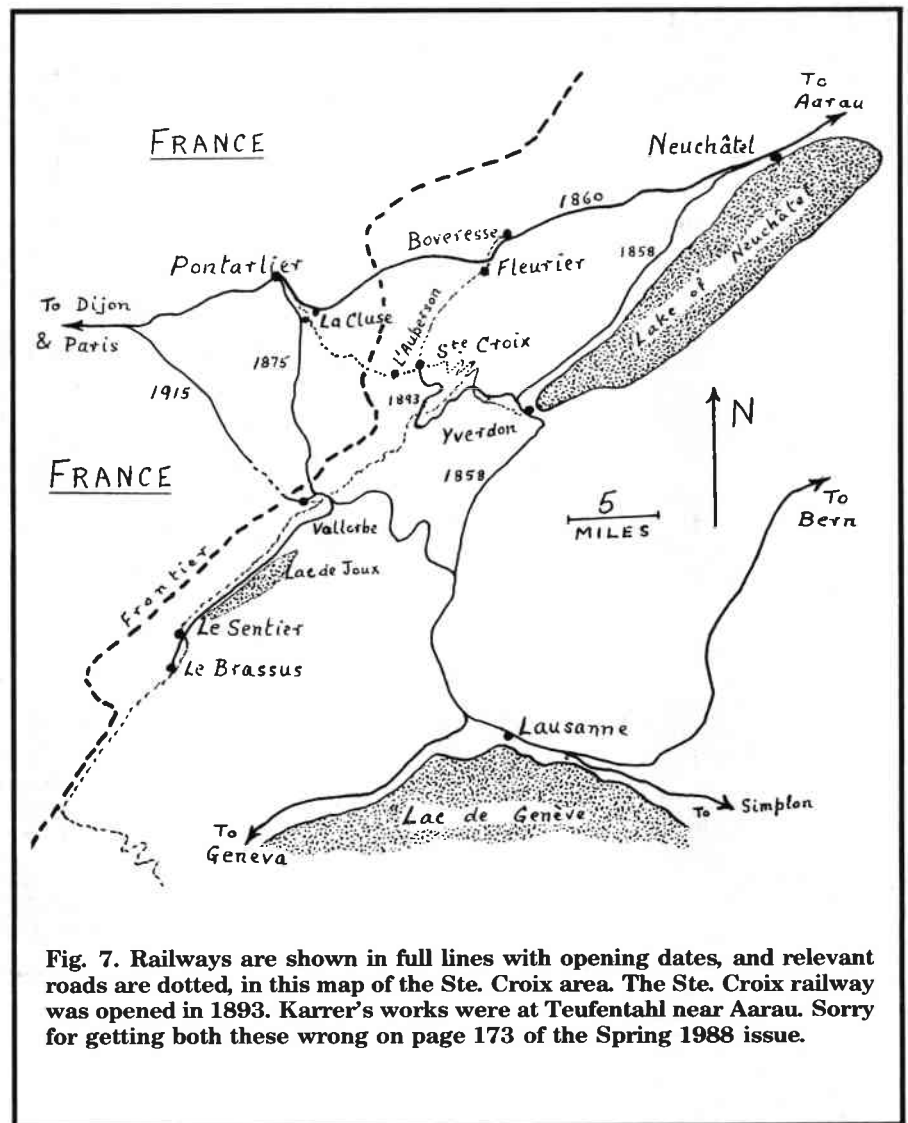


Fig. 7. Railways are shown in full lines with opening dates, and relevant roads are dotted, in this map of the Ste. Croix area. The Ste. Croix railway was opened in 1893. Karrer's works were at Teufentahl near Aarau. Sorry for getting both these wrong on page 173 of the Spring 1988 issue.



Fig. 8. L'Auberson is a long village lining the main road from Ste. Croix to the French border. This picture postcard view of the village, looking east along the main road, was taken in about 1900.



## Under the Hammer



Record prices reached at Sotheby's – Thursday 19th May 1988 saw record prices reached when a Paillard musical box was sold for £29,000 (£32,335 net), in the same sale Lot. 219, a Limonaire fair organ was sold for £120,000 (£133,800 net). Pictures and descriptions of these two items appear on this page.

**A Fine and Extremely Rare Paillard Grand Format Plerodiénique Interchangeable Cylinder Musical Box, Swiss, circa 1885, Serial No. 18762, Style No. 1103,** each of the four 53.5cms cylinders with central slipping sleeve and playing on two combs, the motor with great wheel and two massive spring barrels, cylinder 1 playing two overtures, cylinder 2 three popular airs, cylinder 3 four Gilbert and Sullivan arias and cylinder 4 eight English hymns, contained in quarter veneered walnut case with cylinder storage drawer at the front and raised on four turned wood legs, 102 by 134 by 44cms (40 by 53¼ by 17¼ins) when lid is closed.

The plerodiénique movement consists of a long cylinder split at the centre point and capable of playing each comb independently or in unison as a *sublime harmonie*. This very unusual type of musical movement was devised by Albert Jean Renaud who was granted an American patent in 1882.

Paillard in Switzerland was assigned the European patent and the first display of such a musical box was at the Industrial Exhibition in London in 1862 when it was described as 'the largest and most ambitious musical box yet seen in England'.

**A Superb Limonaire Freres Concert Organ, French, 1900,** specifically made for the 1900 Paris Exposition Universelle, the sixty-six key instrument with seven registers playing book form music, the case with exposed pipe work, snare and bass drums, cymbals, wooden xylophone and three well carved and painted musician automata, one conductor wearing powdered wig, tail coat, breeches and waistcoat flanked by two similarly attired musicians striking bells, the original painted and carved wood façade decorated in the art nouveau style with scrolling foliate carved wood borders framing panels painted with flowers, the hinged arched pediment painted with a group of five dancing cherubs surmounted by carved wood mask of a young girl, lettered *Limonaire Frs. Paris*, mounted overall with electric light bulbs and fixtures, 380 by 410cms. The musical movement is electrically powered and the vendor has completely restored the wooden pipes and replaced the pneumatic feed pipes. The quality of the musical reproduction is outstanding and the organ is sold complete with approximately thirty six continuous hours of music books comprising original and copy editions. The organ is also sold with a custom made all metal container which allows the machine to be transported in



The Paillard Grand Format Plerodiénique Interchangeable Cylinder Musical Box, sold at Sotheby's for £32,335.

complete safety, the top and side are hinged to allow the organ to be fully displayed and operated from the back of a container truck.

This organ was built by Limonaire Freres as an exhibition piece for display at the Paris Exhibition of 1900 and the Brussels Exhibition of 1905. They never built another example of this size as the cost was excessive and they became known for constructing smaller and less expensive instruments.

This organ was bought in about 1906 by Gustave Renard, a Belgian showman from Bressoux near Brussels, who used it very successfully to provide the music for a fairground merry-go-round.

During the 1st World War the Limonaire organ was concealed behind a wall in Renard's workshop to protect it from the ravages of war and on Armistice day it played the first post-war Belgian national anthem in Liege.

Gustave's son, Albert, ran the organ as part of a children's attraction called the Lilliput Train until the beginning of World War II and it then remained unused until the 1960's.

Raymond Bovy, a cousin of Albert Renard and the last owner of the organ, rediscovered the Limonaire organ in 1965 and took it back to his home town of Chenée and spent over seven hundred hours restoring the instrument to its former glory. Since then the Limonaire

organ has been heard and seen throughout Belgium, France and Holland at specialist fairs and events. EMI have recorded a series of three albums featuring the music of this unique instrument.

Another important sale of mechanical musical instruments will be held on the 19th September at Sotheby's which includes the collection of Irving and Jane Brown of New Jersey, USA. The sale includes:

- a fine H. Metert six overture cylinder musical box.

- a very fine Bremond Orchestral Interchangeable Cylinder Musical Box on Stand with organ and bird song.

- a 24½ inch Polyphon Disc Musical Box.

- an impressive Interchangeable Cylinder Musical Box on Stand similar in style to the instrument designed for Czar Nicholas II of Russia.

- a rare Komet 27 in. Double Disc Musical Box.

- a large Atlantic Hupfeld Barrel Orchestron.

- a 32 in. Regina Concerto Autochange Disc Orchestrio.

- a 24½ in. Polyphon Style Autochange Disc Musical Box.

- a Mills Violano Virtuoso.

- a very rare Wurlitzer Style A Automatic Harp.

- and a 27½ in. Symphonion Orchestron Disc Musical Box on Stand.

## Letters to the Editor



Letters sent to the Editor may be reproduced in part or whole, unless marked, "Not for Publication." Due to the amount of work involved in producing the "Music Box" the Editor regrets he cannot answer all letters personally.

### Puzzling box

**Ralph M. Heintz, Vice-President MBSGB writes from California, USA:-**

I was very much interested in Mr. Wright's study of L'Epée that appeared in the Summer issue of "The Music Box". I have had a rather puzzling box for many years, that has been the subject of much speculation. It was restored by Baud Freres probably twenty years ago, and quite possibly has some substitute parts, although, aside from a few replaced teeth, it does not seem to have suffered any major damage.

The movement has some of the classical characteristics of L'Epée: "hairpin" shaped springs on the governor stopwork and on the winding-ratchet pawls, and a "change-repeat" detent bolted to the right-hand edge of the bedplate. The entire movement is nickel plated; however, the cast iron bedplate is painted (fairly obviously a repaint job) gold. It is very lightly ribbed in the conventional transverse direction.

There are two non-identical combs of 58 and 57 teeth respectively, in a sublime harmony configuration. The winding handle is quite conventional, all brass, with the tab extending to the left (hence, my curiosity about a substitute part). There is also a tune selector, which has a wooden knob.

What does not conform to anything I have heard about L'Epée is that the box is interchangeable; having five 6-air cylinders, the unused ones being housed in a hinged box matching the main cabinet, rather than in an integral drawer. The support mechanism is not the usual toggle type, but one which I can describe, for want of a better name, as a co-axial, ramp-driven lock. That is, the cylinder arbor rests in a pair of lyre-shaped supports, but is forced into position by a co-axial bearing that is, itself, forced to the left by a ramp attached to the locking lever. I apologise for this crude description of the lock. I am sure there is a name for this type of mechanism, but it escapes me for the moment.

At any rate, the only suggestion of a serial number that I can find is the number "427" stamped into the upper left corner of the bedplate, and again on the cover of the spring barrel. Unfortunately, there is no tune card. The only other markings I have discovered to date are, "Brevet (sic) S.G.D.C." stamped into the cylinder bearing supports.

Although the cabinet may not be original, it is an extremely good fit. The top and front are rosewood veneer, with triple holly banding, and the remaining sides are artificially grained. There are brass handles, and the lid has a small (roughly 3 by 5-inch) inlaid device composed of metal,

enamel, bits of mother-of-pearl and what appears to be malachite. There are also two zither attachments; one for each comb.

I regret that I cannot supply any further information at this time. I have not disassembled the movement, nor even taken it out of the case. Several collectors have informed me that L'Epée never built an interchangeable box, but the information that came with the box, indirectly from Baud Freres, was that it was, indeed, made by L'Epée. ■

### Extraordinary event

**Dr. J. Hocker, President of the German Society for Mechanical Musical Instruments writes:-**

May I announce an extraordinary event in the field of Mechanical Music in Germany.

For the first time since more than half a century there will take place a concert event with compositions for mechanical music instruments in Cologne in Germany, on the 15th October 1988. There will be four performances on this day at 11.00 am, 3 pm, 8.15 pm, and 10 pm. in the biggest Concert Hall of Cologne, the Philharmonie.

Compositions by Hindemith, Toch, Lopatnikoff and Haass will be performed on a Welte-Mignon-player and several "Studies for Player Piano" from the famous contemporary American composer Conlon Nancarrow, who lives in Mexico and who will be present at the performance in Cologne. The "Studies for Player Piano" will be played by a Bösendorfer Ampico grand. On the programme are also "live"-compositions from Cowell, Ligeti and Antheil (Ballet mécanique).

Last but not least the French musician Pierre Carial will play transcriptions of compositions from Ligeti and Xenakis on a barrel organ.

If you plan to join this event, please contact:

Dr. Jürgen Hocker,  
Heiligenstock 46,  
D-5060 Bergisch Gladbach 2  
Tel: 01049/2202 41222

### Missing tune sheets

**L. C. Thompson writes from Lincoln:-**

I have in my collection a Vidoudez interchangeable cylinder box No. 206, with three 9" cylinders Nos. 643, 645 & 647. For identical box see Mr. Bulleid's article on page 171, Vol. 13, No. 5 of "The Music Box". There is a tune sheet for cylinder No. 645, programmes as follows:

1. Il Travatore, Verdi
2. Daisy Bell Waltz
3. And Her Golden Hair, Rosenfeld
4. Don Pasquale No. 5
5. India's Reply March, Le Brun
6. Invitation à la Danse, Weber
7. St. Freya Quadrille
8. Der Obersteiger Waltz, Zeller.

Cylinders 643 and 647 have no tune sheets - can anyone supply the programmes please? ■

### L'Epée extras

**Joseph H. Schumacher writes from Wilmington, USA:-**

I enjoyed Mr. Wright's L'Epée article in the Summer 1988 issue of "The Music Box". Information of this type is most helpful to all cylinder musical box collectors.

Enclosed are particulars on two L'Epée musical boxes in our collection. The box stamped NICOLE does not have "A Geneve" as part of the mark. It has all the characteristics of L'Epée boxes, however. Many years ago the late Dr. Howard M. Fitch examined this box and also felt it was made by L'Epée.

#### L'Epée Musical Box

Serial No: 6182

Cyl. Ins: 6

Comb: 81 teeth

Airs: 4

Winding type: Key wind

Tune card: Missing

Glass lid: Full length glass lid except for key storage compartment on right.

Remarks: Marked NICOLE. Nicole is stamped in all caps in upper left corner of brass bedplate with serial number directly below. Three controls under end flap. Front and back case screws.

#### Thibouville-Lamy Musical Box

Serial No: 27658

Cyl. Ins: 8 1/4

Comb: 55 teeth

Airs: 8

Winding type: Lever winder-brass lever

Tune card: Missing

Glass lid: Glass lid covers mechanism only.

Remarks: Bedplate is screwed to bottom with three screws. Blonde coloured case has domed lid. ■

### The next generation

**Dale & Luming Gunnar write from Texas, USA:-**

We enjoyed the photo on page 189, Vol. 13, No. 6 of the "Music Box" titled "How young can you get?"

Enclosed is a photo of our grandson Alex Arevalo, aged 5, grinding our "Verbeeck" organ in the Plaza.

Is this any younger than the lad pictured? If not, we have a 5 day old we will start training. ■



## Classified Advertisements

LAST DATE FOR RECEIPT OF ADVERTISEMENTS FOR INCLUSION IN NEXT ISSUE:- 1st OCTOBER 1988.

Members: 11p per word (bold type 5p per word extra).  
Minimum cost each advertisement £3.  
Non-members: 22p per word  
(bold type 10p per word extra).  
Minimum cost each advertisement £6.

Semi display single column 3cm max. 30 words £9.  
5cm max. 50 words £13. Box No. £1.

CASH WITH ORDER PLEASE TO:  
Advertising Manager.  
John M. Powell, 33 Birchwood Avenue,  
Leeds 17, West Yorkshire LS17 8PJ.

### WANTED

**Orchestrions** in any condition manufactured by **Welte, Weber, Popper, Hupfeld, Philipps, Imhof & Mukle, Losche, and Eich.** Also want orchestration remote wall coin boxes, rolls, parts, original fair organ and orchestration catalogues and literature, and original fair organ facades and figures. Hupfeld Phonoliszt-Violina wanted. Tim Trager, 3500 Spring Road, Oak Brook, Illinois 60521, USA. Tel: 312-654-1145.

**Disc-Sets** For 3-Disc Symphonion. Origin literature for Duo-Art, Welte-Mignon, Ampico pianos, organs etc. Richard Howe 9318 Wickford, Houston, Texas 77024 USA. 713/680-9945.

One or more discs urgently needed for Kalliope centre-drive, centre-wind 9 1/4" (23.5cms) 49-tooth (no bells), Wright, Stourbridge 394557.

**Mermod Musical Box** to borrow similar to the one I have for copying missing parts. Number 51904 - Ten airs - Cylinder length 34cms diameter 5.5 cms. Write to Bob Holden, Treasurer, or telephone 01 438 6584 Monday - Friday 9 - 5.

### WANTED

**Barrel Pianos/Organs,**  
working or not, parts and carts.

Please telephone:  
Alan Wyatt on (0223) 860332.

### WANTED

Changeable cylinders for 6 air  
Bremond. Measurements over  
knurled cylinder endcaps 27.7cms.  
10 1/8". Cylinder diameter 5.4cms  
2 1/2". State condition and price.

Reply Advertising Manager,  
Box No. 1371.

### NEW RATES FOR DISPLAY ADVERTS IN 1988

SPECIAL POSITIONS (offered as available).

Outside back cover (one or two colours):  
(full colour, one photograph to max. size of  
8 x 6" with square sides, large sizes £25 extra)

Full page only £110.

£265

Inside covers: Full page £95, Half page £50

POSITIONS INSIDE JOURNAL (as available)  
Full page £70, Half page £40, Quarter page £25

These charges include typesetting but are exclusive of any artwork and camera work which may be required. Half-tone, line, and line-and-tone negs plus artwork, design and layout facilities can be provided if needed at additional cost. Squared-up half-tones £11 each. Cut-out half-tones £15.00 each.

SPECIAL COLOURS

If required, advertisements can be printed in a second colour. Rates available on application.

DISCOUNTS (applicable only on accounts that are settled within 60 days, otherwise strictly nett).

Four or more consecutive insertions with same copy:

Area rate less 10%

Four or more consecutive insertions with differing copy:

Area rate less 5%

Two or more full page advertisements in the same edition:

Area rate less 10%

MECHANICAL DATA type area:-

Full page 10 1/2" x 7 1/2" (270mm x 180mm), Half page 10 1/2" x 3 1/2" (270mm x 88mm) or 7 1/2" x 5 1/2" (180mm x 135mm), Quarter page 5 1/2" x 3 1/2" (135mm x 88mm)

### FOR SALE

Nice selection of **Player Pianos** plus New S/hand Rolls Duo-Art etc. Export service. Laguna Rolls, Lagoon Road, Pagham, Sussex PO21 4TH, England.

**Reproducing Player Piano** Webber electric duo-art (six bellows pump). Duet stool and eighty duo-art rolls £1,500, or exchange for Street Organ, Music Box, Ray Brown 0926 29465.

**Cranford, New Jersey, USA.** Phonograph - music box show. Sunday, September 18, 8am - 4pm. Coachman Inn, Exit 136, Garden State Parkway. World's largest one-day show and sale of vintage machines, records, memorabilia. Just minutes from Newark Airport. Buyers from five continents have participated in the Cranford event - come see why. Details: Box 25007, Chicago, IL 60625 or (216) 758-5001.

**Kuhl and Klatt** café piano with 20 note xylophone, carved front with mirrors. Piano completely restored, some other work necessary. 20 rolls. L. Gage, 226 Milton Road East, Edinburgh. Tel: 031-669-5000.

**The Musician**, (see page 175) cassettes now available. Vol. 1 The Music of Carl Frei. Vol. 2 Popular Selection. £3.75 inc. P & P (Cheques payable N. Simons). Send to Advertising Manager, Box No. 1372.

**Pianorgan** - piano and reed organ combined, overstrung piano organ 3 ranks bass 4 ranks treble; £400. **Playerpiano** - Broadwood Grand - 88 note, £500, or would exchange for roll playing reed organ. Robin Clark 0789-731-455.

Musical Box Society of Great Britain

### SPECIAL JUBILEE CELEBRATION OFFER

Back volumes of 'The Music Box'.  
£10 per volume + £2 postage & packing, U.K.  
£4 postage & packing, overseas.

If you require volumes with copies out of print, select substitute editions from the available list. Single copies still remain at face value.

This offer finishes at the end of 1988.

R. W. Ison, 5 East Bight, Lincoln,  
LN2 1QH. Telephone: 0522-40406.

### NOTICE

The attention of members is drawn to the fact that the appearance in *The Music Box* of an advertiser's announcement does not in any way imply endorsement, approval or recommendation of that advertiser and his services by the editor of the journal or by the Musical Box Society of Great Britain. Members are reminded that they must satisfy themselves as to the ability of the advertiser to serve or supply them.

Musical Box Society of Great Britain

### SUBSCRIPTIONS

Have you paid the correct fee for subscription renewals?

Please check now and forward any outstanding amount to Ted Brown, Subscription Secretary.

If you are paying by standing order please make sure your bankers have received a revised standing order.

### Correct Membership Fees

**United Kingdom, Europe and Near East**  
£12 (plus £1 joining fee).

**Far East, Australia and New Zealand**  
Air Mail £22, Surface Mail £14 (plus £1 joining fee).

**United States Air Mail** \$35, Surface Mail \$25 (plus \$2.50 joining fee).

**Canada Air Mail** \$48, Surface Mail \$35 (plus \$3 joining fee).

## Wanted

Articles wanted for publication in the "Music Box"

Let the membership as a whole benefit from the experience of individual members. Write a letter or send a complete "article". Photographs of unusual pieces are also required for "Members Showcase".

Address your correspondence to:

Graham Whitehead,  
Broadgate Printing Co. Ltd.  
Crondal Road, Exhall,  
Coventry CV7 9NH.

### High Quality

## RESTORATION SERVICE

ORCHESTRIONS, ORGANS,  
BARREL OPERATED  
INSTRUMENTS

Many examples of completely rebuilt instruments available for inspection ranging in size from flute clocks to the world's largest Imhof & Mukle barrel orchestration and a cinema organ.

We rebuild everything except musical boxes.

Napton Nickelodeon  
of Mechanical Music,  
High Street, Napton-on-the-Hill,  
Nr. Rugby, Warwickshire,  
England.  
Tel: 092681-2183.



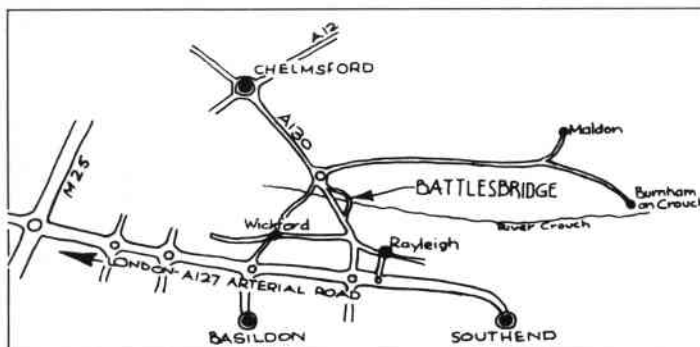
**JOE PETTITT at Bridgebarn**

**COIN-OPERATED AMUSEMENTS  
OF ALL TYPES**



**VICTORIAN TO 1930's ERA  
PLUS MANY OTHER INTERESTING MUSICAL AND MECHANICAL ITEMS**

**Antiques  
of all  
descriptions**



**Open most  
days and  
weekends  
Sats. after 2 pm.**

## **BRIDGEBARN & HAYBARN ANTIQUE CENTRES**

**THE GREEN, MAIN ROAD,  
BATTLESBRIDGE, ESSEX.**

**Telephone: Wickford (0268) 763500 & 735884.**

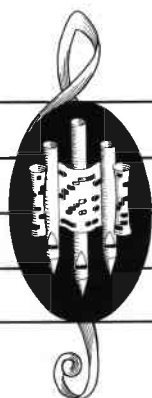
**44 Other dealers in four buildings (ideal for the ladies to browse!)**

Automatic Musical Instruments

Organ Builders

Music Rolls and Books

Computer Operated Instruments



Organs of various types available,  
new and secondhand Hand-cranked book  
or roll operated organs, also the unique  
'Harmonist' player system.

Blank organ card and paper roll supplied.

Send S.A.E. for details and coloured leaflet to:-

### **ALAN PELL MUSIC**

**36 Broadgate, Whaplode Drove,  
Nr. Spalding, Lincs. PE12 0TN  
Tel: 0406 330 279**



## **KEITH HARDING'S World of Mechanical Music**

**A UNIQUE ATTRACTION AS FEATURED ON  
RADIO AND TELEVISION**

**A Museum of Antique Clocks, Musical Boxes, Automata and  
Mechanical Musical Instruments,  
REGULAR TOURS AND DEMONSTRATIONS  
Entrance through Gift Shop, where Musical Dolls, Clowns,  
Houses, Instruments, Records, Cassettes, Books  
and Souvenirs are for Sale.**

**EUROPE'S LEADING RESTORER OF  
CLOCKS AND MUSICAL BOXES  
LARGE SELECTION OF ANTIQUE  
MUSICAL BOXES FOR SALE**

**OPEN 7 days a week. 10:00 am - 6:00 pm  
High Street, Northleach, Glos. GL54 3EU. Tel (0451) 60181**



Est. 1968

Nancy Fratti  
**PANCHRONIA ANTIQUITIES**

Post Office Box 28  
Whitehall, New York 12887.

Specialist in  
Antique Music Boxes and  
Restoration Supplies.

**Offers You:**

- MUSIC BOXES:** DISC and CYLINDER Music Boxes in many sizes and styles. All are fully restored and guaranteed. Send wants. (Due to fast turnover, no listing available).
- DISCS:** 100's of discs in stock for many machines. Send your specific wants plus 50¢ postage and I'll send you a FREE listing of discs currently in stock for your machine....OR....send \$3.00 and receive a listing of ALL discs in stock. All discs listed by number, title and condition. (overseas, \$4.00).
- RESTORATION SUPPLIES:** Governor Jewels, pin straighteners, damper wire in 7 sizes, damper pins in 4 sizes, tip wire, slitting discs, Geneva stop parts, pawls, comb steel, ratchet wheels, Regina moldings, lid pictures, paper goods, keys and much, much more! 30 pg. catalog only \$4.00 (Fully illustrated). (overseas, \$5.00) REFUNDABLE.
- TUNE CARDS:** Fully illustrated catalog of 80 different styles of reproduction tune cards for Cylinder boxes. Some in original multi-color! Send \$1.50 (overseas \$2.50).
- BROCHURE:** "So, You Want to Buy a Music Box.... Things to Look For". Originally presented by me as a lecture at an MBS meeting, made into a booklet telling the basic workings of a music box movement and how to look for potential mechanical problems. Send \$1.50 (overseas \$2.50).

**I BUY TOO!!**

*I'm always interested in purchasing Music Boxes in any condition; Discs - any size, any quantity; automata; music box parts. Prompt, courteous and confidential service.*

*Your SATISFACTION is always GUARANTEED!*

*TERMS: US Currency OR Bank Check in US Funds.*

518-282-9770

**CYLINDER AND DISC BOX REPAIR AND RESTORATION**

Services offered include:-

- ★ Cylinder re-pinning - no limitation to size.
- ★ Pins can be raked (angled) if required.
- ★ Eccentric or worn cylinder pins re-ground true to cylinder pivots
- ★ All manner of comb work.



- ★ Cutting back. Re-tuning.
- ★ Re-leading and Tuning.
- ★ Re-facing star wheels.
- ★ Setting up and adjusting gantries.
- ★ Motor repairs.

**J. D. WEIR F.B.H.I.**

Parkview, 72B Glengate, Kirriemuir, Angus, Scotland DD8 4JG  
**Telephone: Kirriemuir (0575) 73781**

Cylinder repinning, due to workshop expansion I can offer a complete cylinder repinning service in a realistic time with no limitations on cylinder size, anything from snuff box to Plerodienique, including orchestral and organ cylinders. Organ cylinders can be repinned with or without partial bridge repairs or full re-bridging.

**Cylinder pins are finished straight or raked as required.**

Single cylinders from interchangeable sets can be repinned without surcharge. All repins are charged at the same basic price of length x diameter x 60p plus £60. With an additional charge for raking if required of length x diameter x 20p. All measurements to the nearest half centimetre.

Organ cylinder repinning charges are assessed on the full length of the cylinder including the bridged section. This is to allow for the extra time spent preparing and finishing these. Organ bridge repairs are charged at £12 per hour.

Collection and delivery. All work can be collected and delivered door to door by insured carrier. Large items can be collected and delivered personally.

*In fact anything necessary to completely overhaul your musical box. Part jobs welcome.*

# JOHN COWDEROY ANTIQUES

The Musical Box Centre  
42 South Street Eastbourne

Tel: 0323 20058 (Day)  
0323 504590 (Evenings)

**SPECIALIST IN THE  
RESTORATION OF  
MUSICAL BOXES  
AND CLOCKS**



*We buy and sell*

Cylinder Musical Boxes ● Clocks  
Disc Machines ● Furniture ● Silver  
Jewellery ● Items of interest

*Large showroom*

# Belle Vue Box Repairs

*Musical Box Specialists*

48 ALPHA ROAD, SOUTHVILLE,  
BRISTOL BS3 1DH.

Telephone: (0272) 662010

Complete restoration of cylinder musical boxes i.e. cleaning, repinning, tooth replacement, redampering, tuning, case repairs and polishing.

High standards of workmanship guaranteed at fair prices. Written Estimates supplied.

Governor repair service including fitting of endstones. Entire governors made and planted on bedplates.

We do not supply parts or undertake comb work except as part of a complete overhaul.

Restored items for sale usually available.



**Lesley Evans**

PLAYER PIANO SPECIALIST

High Quality Grand and Upright Player Pianos Restored throughout to the Highest Possible Standards usually available from stock.

We are occasionally able to undertake the restoration of clients' own instruments. Please telephone for further details.

**A Large Stock of Original Rolls  
(88 and 65 note)**

Plus the entire range of  
**NEW JAZZMASTER AND RAGMASTER  
ROLLS**

Always available at Competitive Prices

**VISIT US AT LISS**

(phone Liss [0730] 894086 for appointment)  
or send S.A.E. for details to:-

**P.O. Box 12 . ALRESFORD . HANTS.**

---

# SOTHEBY'S

FOUNDED 1744

---

## Fine Mechanical Musical Instruments

Including the Irving Brown Collection

---

LONDON

MONDAY 19TH AND TUESDAY 20TH SEPTEMBER 1988



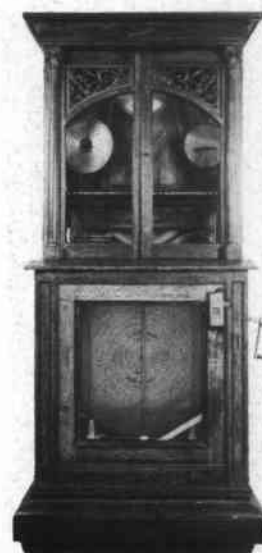
A Taylor & Merello street barrel organ,  
79 cm. (31 in.) wide.



A 15½ inch Regina  
autochange disc musical box,  
173 cm. (68 in.) high.



A large interchangeable cylinder musical box on stand,  
142 cm. (56 in.) wide.



A rare 32 inch Regina concerto  
autochange disc musical box,  
249 cm. (98 in.) high.

The sale includes over fifty rare and important mechanical musical instruments

On view: Thursday 15th and Friday 16th September 9 am to 4.30 pm

Special Sunday view 12 noon to 4 pm

Enquiries: Jon Baddeley (01) 408 5206

Sotheby's, 34-35 New Bond Street, London W1A 2AA. Telephone: (01) 493 8080. Telex: 24454 SPBLON G

---

# Shelagh Berryman

**ANTIQUE  
MUSIC BOXES  
CLOCKS**

15, The Market Place  
Wells,  
Somerset BA5 2RF  
Tel: Wells (0749) 76203



Looking for something special ?

You're almost sure to find it when you pay us a visit in Wells. We carry a comprehensive range of cylinder and disc musical boxes, carriage, bracket and Long Case clocks, all backed by our own restoration workshops. Displayed in a veritable Alladins cave of antiques, both elegant and unusual, whether you require a Georgian table or an antique snuff box, we may be able to assist you !

Call in for our professional advice and a demonstration; we will be pleased to help you.

Shipping Service



Valuations



Restoration