Issue 40, Summer 2025

MECHANICAL MUSIC WORLD

SPECIAL BUMPER 10th ANNIVERSARY EDITION

An Association of Musical Box Collectors Publication

OFFICERS OF THE AMBC

President Ted Brown

01403 823533

Chairman Paul Bellamy

01634 252079

bellamypaul@btinternet.com

Treasurer Ingvar Svenson

07711 836274

inesvenson@gmail.com

Events Manager Juliet Fynes

01798 342353

julietfynes@hotmail.com

Secretary Bernard Novell

07879 472353

secretary.ambc@gmail.com

Committee

Paul Baker

Anna Svenson

Editor David Soulsby

07766 055513

dave-soulsby@sky.com

Advisors David & Lesley Evans

AMBC Website www.ambc.org.uk

From the Editor's Desk

Our Editors from the very first edition of Mechanical Music World, David and Lesley Evans, introduce this tenth Anniversary edition with greetings from Canada:-

Spring has at last sprung in our part of the world and we hope all is well with you too! It has been our pleasure to edit the Journal of the AMBC for an amazing ten years, since the Association's inception.

Looking back at the forty editions with which we have been involved it is evident that members have contributed generously with their time and talents to provide a varied and informed content for which we, as editors, have always been very grateful. It has been a pleasure working with Ted Brown as Chairman, Paul Bellamy as deputy Chairman and the other members of the committee. At the outset we also could rely upon beautiful montages and graphic advice from Chris Fynes, whose expertise is still sadly missed.

It has also been a great pleasure and benefit to work with Stephen and Anna at the printer's. Their expertise has resulted in some beautiful front covers!

This tenth anniversary issue is a very bitter/sweet one for us as it is probably the last one we will be actively involved with. The time has come for us to pass the responsibility to the next generation and David Soulsby has volunteered/been persuaded to assume the task of editorship. We have enjoyed David's wonderful contributions on automata and are delighted to hand over to somebody so involved and committed to the Association. The journal will continue in capable hands, and we are sure David would love to receive contributions from as many of you as possible!

In this Anniversary Edition

Thank you David & Lesley for your kind words of encouragement, you're certainly a hard act to follow. This anniversary edition contains a wide range of topics some of which, if not all, I hope you will find interesting. (if not, please write one of your own and send it to us!). Amongst the pages, Paul Bellamy and Anna Svenson, in two separate articles, describe the various musical items brought along by members for our *Show and Tell* meeting at our new Coultershaw venue. Anna provides background to the John Hicks barrel piano that she presented. Paul Baker tells us about a 19th century book he recently discovered, *The Wonders of Nature and Art.* He describes mechanical marvels from the past, including two Speaking machines, a writing automaton and the marvels of the original Astronomical clock at Strasbourg.

Ted Brown describes the birth of picture postcards and gives us access to his collection, some of these appear here and there throughout these pages.

Bernard Novell has been busy and as well as telling us about his Palais Royale Necessaire renovation, he also describes several other items that he has recently acquired including a Charles Ulmann, 125 year old, tabatiere as well as an unusual manivelle player and a miniature Swiss chalet musical box.

David Evans provides details of his delightful musical jug collection and there is also a report on the first ever Automaton in the UK, held in Hastings in May 2025.

I am very pleased to present an article from our friends from the USA at MBSI, we are hoping to have a regular column in the journal featuring information and articles from like minded societies. This one tells of the massive undertaking to reconstruct the Welte Philharmonic organ from Massachusetts USA. The original description of this labour of love to rebuild the organ was accompanied by a detailed set of photographs, only some of which we have been able to reproduce here, because of confines of space. We already have an article from Belgium ready for the next issue.

Any comments on this magazine and articles for future editions would be most welcome.

David S.

President's Message

We are now in our 10th year, our anniversary year. When we were first founded we all had a like mind for the love of mechanical music and it was our aim to continue to promote it in all its forms. I'd like to think that all of you, like me, listen to a machine or recording to keep your enjoyment up.

I was told by my committee that they had received a proposal from our Editors that I be considered for a new position of President. A vote was taken and as a result I am now the Association President. When we formed the association back in 2015, we felt that 'Chairman' was a sufficient ranking. Now like all other societies we will have a similar ranking system. Thank you all. Now, the last ten years, where did they go? Juliet has done a great job taking us through them in her piece, that you can read later in this issue, so I won't elaborate here. The creation of the Association in February 2015 presented us with several challenges, but with a lot of hard work and enthusiasm we overcame them. I think the Association has been a success and we continue to fulfil the aims set out in our constitution. We have had our setbacks; the Pandemic for instance, severely curtailed our activities and our Chanctonbury Ring meetings suffered. But we now have a new home at Coultershaw and regular events are back on track. This journal and our website continue to thrive; so there is much to reflect on and be proud of.

It would be remiss of me however not to point out that the future is not as rosy as past achievements might suggest. None of us are getting any younger and our hobby has become more and more niche. Attracting new members has proved difficult. A new approach is needed, (answers on a postcard!). Seriously though any opportunities you have to get your friends and family interested in the joys of listening to mechanical music would be helpful. Bring them along to one of our meetings so that they can experience this first hand.

Closer ties with like minded groups to pool resources has been suggested and is being actively pursued. I support this initiative.

Not wishing to be a Kill-joy please read on and enjoy this Anniversary edition. Any thoughts on my musings would be of interest. Thank you all for your support.

Ted Brown

Webmaster's Report

The AMBC website continues to be developed, we have now had nearly 8,000 visits since its relaunch in December 2022.

We now add a short list of the latest changes on the *Welcome* page.

All Mechanical Music World Journal (39) précis have been added and the supplements to Paul Bellamy's Tune Sheet book are also now available to download from the Publications page.

The Diary is constantly being updated to include new events, and to remove those that have passed by. Please let us have details of any events that you know about to be included.

A new Glossary of Terms link has been added under Look, Listen & Learn. This links to an external site that is still being developed. Again, if anyone has anything to add to this, or any of the other pages under this heading, we would love to hear from you.

Regards
Bernard Novell

Mechanical Music World

If our AMBC journal is to keep going:-

From Issue 1

To Issue 100

We need to start with articles for Issue 41. Please write to us.

TEN YEARS ON
By Juliet Fynes

In 2015 Ted Brown and Paul Bellamy launched AMBC with the help of a group of friends. Luckily between us we had the skills, facilities and contacts to "hit the ground running".

Importantly there was a ready-made meetings venue at The Old School. A regular programme of meetings began with members bringing their instruments to demonstrate, supplemented with items from Ted's remarkable collection of instruments, ephemera and memorabilia. Not least of the attractions was the two-course lunch cooked by Ted in the old school canteen and served with Kay's help.

The plan to publish regular newsletters was quickly abandoned in favour of a more ambitious glossy magazine, as we had experienced editors at the ready in Lesley and David Evans. Chris Fynes' professional skills were harnessed in the design of the magazine and website. Paul's academic researches provided, and continue to provide, an endless supply of articles. AMBC was an immediate success and we began to attract members and generous donors to help get the enterprise up and running.

Over the years, as well as the regular meetings, we got out and about. Our first outing, that same year, was to the Musical Museum, Brentford, and also the London Museum of Water and Steam, conveniently close by. The following year was even busier. We supplied the entertainment at Amberley Open Air Museum, with a variety of instruments playing outside and a programme of talks by Ted in the education room. Later in the year we were invited to exhibit at the British Horological Institute (South London Branch) Inaugural Open Meeting. These biennial meetings have been a regular feature for us every time since. They are very well attended and we have been glad of this opportunity to bring mechanical music to the public. A party of us also spent a long weekend in Suffolk, based in Ipswich. We enjoyed private visits to "Sounds of the Past" museum, primarily devoted to old radios, televisions and gramophones, and Jonny Ling's collection of organs and musical boxes.

2016 also saw the publication of Paul's internationally acclaimed book "The Music Makers of Switzerland" for which he was awarded the American MBSI (Musical Box Society International) David Bowers Literary Award for "Outstanding Literary Contributions to the Field of Automatic Music". Paul also received the David Bowers Award for his subsequent book, "The Cylinder Musical Box – a Collector's and Restorer's Handbook" (2019), illustrated by Don Busby and Chris Fynes. It was so successful that there were three print runs and it is now virtually unobtainable – a true Collector's item! Again in 2022, using his own and Anthony Bulleid's research, Paul produced the award winning "The Cylinder Musical Box – Tune Sheets, Makers, Agents and Dates". Ted and Kay had already been honoured by MBSI in 2005 with the Roehl Ambassador Award, "given for consistently endeavouring to introduce people to the field of mechanical music".

As well as books a number of CDs were produced. These were recorded by Chris, featuring his and other members' musical boxes to be sold for the benefit of AMBC. Nearing the end of his life he funded a special CD version of his musical snuffboxes in aid of Cancer Research.

Over the years there have been many individual and group meetings to visit 'different' collections in the UK, America, Canada, Germany, France, Holland. We were invited by the German society GSM (Gesellschaft fur Selbstspielende Musikinstrumenten) to attend their AGM at Schloss Benkhausen in Espelkamp, Westphalia. The castle is the headquarters of the Gauselmann business group and within its moated grounds are extensive hotel and conference facilities and the Deutsches Automaten Museum. We arrived tired and hungry after the twelve hour drive to Espelkamp, having missed dinner, but a magnificent buffet was quickly rustled up giving a foretaste of the hospitality we were to receive. The Museum is owned by Paul Gauselman, head of the company which operates amusement arcades. He gave us a personal conducted tour of the museum, finishing with a little gift for all the participants. With his passion for coin-in-the-slot machines he has amassed the finest collection in the world. At any one time only a portion of the collection is on show, all are in pristine working order and very well presented with information in English and German.

We have also made a couple of expeditions to Rudesheim to meet up with our German friends at the three-day weekend swap meet, the fair takes

place twice a year in an old distillery building. There is plenty of interest for everyone, but with a leaning towards gramophones. Rudesheim is an attractive tourist hotspot on the banks of the Rhine with a wide assortment of hotels and restaurants. The biggest attraction is Siegfried's Mechanical Musical Cabinet housed in a wonderful 14th century knight's residence. On the Saturday night of the 'swap meet', Siegfried's hosts an evening of food, drink, entertainment and good company, with a barbecue in the courtyard and unlimited drinks for a modest all-in price. It is most convivial and well worth a visit. Looking back we have made a significant contribution to the world of mechanical music and had a lot of fun along the way. Sadly the interest in our field is on the decline. Large organisations in the past have tended to fragment into smaller ones each "doing their own thing". Looking forward we believe the time has come to reverse this trend by establishing closer ties between like-minded societies, possibly even in the long term re-integrating to pool expertise and resources. AMBC is entering a new era with some changes to the officers. Ted has been elected President with Paul taking over the chairmanship and handing the position of treasurer to Ingvar Svenson. David and Lesley Evans have resigned as editors, but will continue as contributors to the magazine under the editorship of David Soulsby. Bernard Novell is now secretary as well as webmaster. Together the committee has a determination to build on the past in securing our future.

Meetings

It is not currently possible to hold Chanctonbury Ring meetings at The Old School, but we are delighted to invite you to two meetings to take place at other venues later this year.

Saturday 23rd August - Open Meeting

This will be held at The Coultershaw Heritage Centre, Nr Petworth, West Sussex.

It will be an open 'Show & Tell' meeting with members of the MBSGB invited to attend.
We will provide tea, coffee and biscuits. Attendees are requested to bring a packed lunch.

Timetable:

10:30 - 11:00 Arrival and refreshments
11:00 - 13:00 Morning Session
13:00 - 14:00 Lunch with time for a stroll around the millpond and picnic by the river.
14:00 - 16:00 Afternoon session

How to get there - Coultershaw Heritage Centre, Station Road, Petworth, GU28 0JE. The site is off the A285 a mile or so South of Petworth. On arrival please follow the AMBC signs to the car park and meeting room.

Thursday 18th September - Members Meeting

The second will be held at the home of Chairman Paul Bellamy, 46 Longfield Avenue, Rochester, Kent, ME3 8TA commencing meeting at 11:00.
Paul is delighted to host this event and will be playing a selection from his magnificent collection of Mechanical Musical Instruments.
Again tea, coffee and biscuits will be provided, but we ask attendees to please bring their own lunch.

Considering Picture Post Cards

The British Post Office introduced the first official postal cards in October 1870. These were plain cards with no images, pre-printed with a ½d (half penny) stamp and space for a short message. These were strictly utilitarian, intended to be cheaper and quicker than letters. On 1 September 1894, the UK Post Office allowed privately printed pictorial postcards to be sent at the postcard rate. Early cards had an undivided back: the front carried the image, and the back was for the address only.

Messages had to be written on the front, around the image or in blank areas, often leading to creatively cramped writing.

The divided back format was introduced in the UK in 1902. The back of the postcard was now split into two sections:- Right side: for the recipient's address. Left side: for the message. This greatly improved the functionality of postcards and quickly became the standard format, still used today.

The years from circa 1900 to the outbreak of World War I in 1914 are considered the Golden Age of postcards. Millions were sent and collected weekly. Themes ranged from scenic views, humour, romantic images, patriotism, and novelty designs. Leading artists and illustrators were commissioned, and printing techniques flourished (e.g., chromolithography, hand-tinting). The postcard became both a mass communication tool and a collectible art form.

Picture Postcards Featuring Mechanical Music

Picture postcards featuring mechanical music (musical boxes, fair organs, orchestrions, street organs, etc.) are a niche but very collectible category.

Street Organ Scenes

Most common in postcard history, especially from: The Netherlands, Germany, France, and the UK. They often depict:- Organ grinders with monkeys, Large fairground or street barrel organs, Public entertainment scenes, markets, or parades.
Some are real photographic postcards (RPPCs) showing actual organ performers? Dutch cards frequently feature ornate Gavioli or Limonaire organs from the 1900s–1930s.

Musical Automata

Much less common, but some rare postcards exist showing:- Museum displays (e.g., Musée d'Automates in France or the Vichy figures). Parisian department store windows from the early 20th century featuring automata; Automaton makers like Roullet & Decamps or Vichy (though these are often collector reprints).

Manufacturers and Exhibitions

Raphael Tuck & Sons and others published cards commemorating world fairs (e.g. Paris 1900, London 1908) where musical boxes or organs were exhibited. Some cards depict mechanical musical exhibits at trade fairs, though often generically labelled as "inventions" or "entertainment devices"

Themed Artistic Postcards

Around 1905–1915, some illustrated or comic postcards used the image of a musical box or crank organ for humour or romance

AMBC Website has a selection of picture postcards and a number are dotted throughout this issue for amusement and to fill space.

Report on AMBC Members' Meeting, 23rd March 2025 by Paul Bellamy

The meeting was held at fairly short notice at the Coultershaw Heritage Centre, near the lovely old town of Petworth, to follow on from the first committee meeting of the membership year, March 2025 to February 2026.

Members brought along mostly cartel cylinder musical boxes plus some musical snuffboxes and one example of a John Hicks barrel piano, which features as a separate article in this issue. Sufficient to say that although several members have examples of Joseph Hicks of Bristol this was possibly the first John Hicks to be demonstrated. It was complete with it its trade label, address and other details hidden on its soundboard behind the strings. Although it had suffered fading and damage it remains a rare survival from this maker.

The term cartel has been in use to describe cylinder musical boxes of the type other than its smaller cousin often called (sometimes incorrectly) snuff-box movements. The late HAV Bulleid wrote about the word 'cartel' in his book Cylinder Musical Box Design & Repair, page 96 in a section entitled L.G. Jaccard (1861 - 1939). Bulleid started with the following quote:

"The Jaccard articles, written in 1938 when the author was 77 and re-printed by the Musical Box Society International, are both fascinating and interesting because they could have been so much better. Jaccard joined the musical box industry in or near Saint Croix when he was 16, in 1877, by which date he records most cylinder musical box variants had already appeared. Yet, to give just one example, he describes both Mandolin and Tremolo types as having 'many prongs tuned to the same pitch', but fails to make it clear that they are merely different names for the same effect. Of his apprenticeship years he is frustratingly short of vivid detail, and I must confess that I simply do not believe his claim that (in 1877-1878) all musical boxes 'had their cylinder pins bent forward one after the other in order to place them in their correct position according to musical notation to make the different notes of the chords fall together in perfect unison.' What did he really mean when he wrote that? It is necessary to challenge obvious error lest it be added to the string of traditional errors repeated by writer after writer."

One has to admire Bulleid's masterly headmaster style by admonishing poor Jaccard for lack of understanding whilst at the same time admonishing later writers failing to do the same and perpetuating errors of misunderstanding.
Bulleid's quote continues: 'Jaccard is at his most valuable in recalling the names and expressions obviously long accepted in the musical box trade by the time he joined it. They were so obvious to him that he never thought of explaining their source. In cold fact, all cylinder movements with spring arbor perpendicular to the bed plate which were first made for snuff-boxes, were simply called Snuff-boxes (Tabatières). The others, with spring (motor) arbor parallel to the cylinder, were first made for clocks and were called Wall Clocks (Cartels). I must say I have not previously seen the latter explained, the French noun cartel now being restricted, in its second meaning, to antique wall clocks."

Public clocks, domestic clocks and pocket watches were often fitted with musical chimes that sounded just before the hours were struck. The purpose was to alert people to the strikes that followed to indicate the hours and sometimes even the half hours and quarters.

The name cartel should be taken in its original meaning as a form of trade association. Watch and clock makers were mostly trained by way of the apprenticeship and then registered as competent makers/workers in their own right. If watch making was a predominant trade as it was for Geneva, it would probably have been referred to as the predominant cartel. Clock makers used not only tuned bells but also musical instruments such as small organs and string instruments. It was a natural progression to use a cylinder movement for use in a cartel clock. So, if some wall clocks were called cartels then, if fitted with a cylinder musical movement, it was possibly described as a musical movement for a cartel clock. It would be only one step to call a clock made by the local cartel a 'cartel clock' and, by association, the musical movement a 'cartel movement'. Perhaps we shall never know.

Fig. 1.1. Early Nicole Frères key-wind 'fat cylinder' two-per-turn movement c. 1855

It was interesting to listen and compare the performance of three Nicole key-wind movements. The first was serial numbers 39237, circa 1855, a key-wind 'fat cylinder' movement. This can be another confusing term because it is often applied to describe any cartel movement with a cylinder larger in diameter than 'standard'.
Fig. 1.1 shows the musical box and Fig. 1.2 shows the tune sheet with its composers Donizetti, Meyerbeer and Verdi. Fig. 1.3 shows the single comb with 128 teeth.

Serial 39237 is a rare early example of a Nicole two-per-turn musical box and therefore a rare pleasure to be able to share its music that was pinned nearly two hundred years ago.

Standard movements can be one of several diameters but typically about 2.125 inches. Larger cylinders for Overture and two-per-turn movements were typically between 2.875-3.25inches. They were often pinned more closely to 1.5-2 minutes per cylinder revolution in order to achieve 'more music' per surface length. The dimensions and gear ratios used to drive the governor vane could be set to produce a slower cylinder speed and hence a more acceptable tempo of musical performance.

Fig. 1.2. The tune sheet for Fig. 1.1

One can infer that Nicole was the first and probably the most prominent maker to use cylinders with diameters larger than 'standard'. The Nicoles we refer to must not be confused with the legendary François Nicole, the founder of the Nicole enterprise. They were cousins of François, Pierre Moise Nicole and David Elie Nicole, who inherited the business.

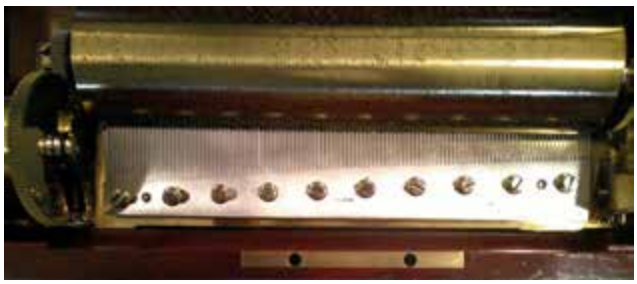


Fig.1.3. The movement for Fig. 1.1 showing its single-piece comb with 128 teeth.

They used the term Grand Format, as engraved on tune plaques for these 'fat cylinder' types that were used almost exclusively for musical programmes comprising overtures; the name Overture would then be proclaimed on the tune plaque but sometimes Variations. There are a few Mandolin types as well as Forte-piano (i.e. two-per -turn) types. Nicole Grand Format musical boxes may have had even closer pinning to give 2.5-3 minutes playing time on cylinders of 3.75- 4.25 inches diameter. It was a clever marketing strategy to use large diameter cylinders to play more than one tune per turn.

Unfortunately, the Cunliffe Register did not list or describe cylinder diameters in tabular form, which makes it difficult to establish exactly when more than one tune was pinned on one turn of the cylinder. The earliest example on the register was for serial 28104, circa 1848, for an unusually rare Overture-Grand Format - Forte/Piano example. One of the last two-per-turn register listings is serial 48083, circa 1880, the last 'true Nicole' in the Register. After that date, the Nicole enterprise was bought by Charles Brun who continued with the Nicole name but started a new series at serial 50,000 (called the fifty thousand series along with a new series of game numbers called the 5,000 series).

Another reason why Nicole favoured the 12-air 2/T movement rather than an extension of their standard 8-air ones is a question of balancing demand with the use of standard components, mainly restricted by comb length. A comb with 120 teeth and a tip-to-tip distance wide enough to accommodate 12 tracks has quite an impressive tune sheet. It is, however, musically limited and aesthetically of rather unpleasant appearance because the comb looks coarse. Worse, the hammer-blow to return the cylinder at the end of 12 airs is considerable, requiring a strong return spring. Perhaps that is why they only spanned about 7 years, 1854 to 1861!

Fig. 2.1. A 'standard' cylinder Nicole, serial 30287, circa 1852

This 'standard' cylinder Nicole serial 30287 is circa 1852 and therefore just a few years earlier than Fig. 1. Five of the 6-air programmes are quadrilles from a piece called The Royal Irish and one polka called The Barden. Each of the quadrilles has a title such as Pantalon (meaning trousers), Été (meaning summer), Poule (meaning hen), Frenise (meaning frenzied) and the Finale. Fig 2.2.
The quadrille was a dance fashionable in late in the seventeen and eighteen hundreds. It was usually danced by several couples to a variety of different melodies.

The sequences were often performed by four couples in a rectangular formation and the quadrille is thought to be the precursor to American square dancing.

This version had an Irish flavour and the various dance sequences illustrate that little has changed with time when it comes to dancing around and enjoying a bit of frivolity. Exactly what the Pantalon sequence

Fig. 2.2. The 6-air tune sheet for serial 30287

consisted of is lost in time but Frenetic? That leaves little to the imagination. One can imagine Irish emigrants to the USA and elsewhere taking their culture with them.

It is quite possible that the selection was used for dancing rather just to listen to. It also shows how makers were able to arrange tunes specifically for a particular client. Fig. 3.1 shows a standard 6-air Nicole musical movement serial 36495, circa 1859. The tune sheet, Fig. 3.2, had suffered from damp, which causes the components that made up the original ink mix to separate. The colours also fade but there is enough detail to identify the serial numbers although the hand-written tune list is barely discernible. The six airs were by several composers and the programme probably chosen just to listen to.

Fig. 4.1 shows a 4-air key-wind musical box serial number 20567, circa 1845, with the letter J stamped on the comb. Fig. 4.2 shows its tune sheet with its distinctive pattered lyre in the top cartouche. The name of one tune is The Nachtfalter (moths) Waltz by Strauss 11, first published in 1845 (miss-spelt on the tune sheet as Nachtfalter). Fig. 4.3 Shows the simple fruit wood case.

Fig. 4.4 is the tune sheet for another unattributed musical box maker for an overture movement also circa 1845, serial number 12645. Note the differences in the pattern of the top cartouche.

Fig. 3.1 A view of the Nicole key-wind movement

This one has a distinctive star. It is tempting to think that the star refers to Conchon who used it as his emblem and named his factory the Star Works. However, he was a Frenchman born in 1837 before he settled in Geneva and his serial numbers do not start until 1867, so cannot be the maker.

Fig. 3.2 The tune sheet for another standard 6-air Nicole, serial 36495, circa 1859

Bulleid produced a table of leading Geneva makers pre-1850. The movement, Fig. 4.1, is clearly of Geneva manufacture. However, the Bulleid dating charts rule out most possible makers leaving just one, Métert and/or Langdorff.

Fig. 4.1. A key-wind musical 4-air musical box serial number 20567

However, it seems that neither used the lyre as their logo. But does that rule out either of them? Both started work separately before they formed a partnership in 1844 that ended in 1852. Henry Isaac Métert died in 1855. In partnership, Bulleid estimate they produced about 640 movements per year. It is possible that either of them would have had started the set of serial numbers.

Métert also had a distinctive tune sheet pattern, illustrated here as a blank, Fig. 4.5, which Bulleid attributed to him in 1846, two years after the partnership was formed. Its logo is a square piano, not a lyre. The tune sheet with its serial number 12645 must therefore be slightly earlier, say at least 1841 if the Bulleid curve was extrapolated backwards. The curve itself is an approximation therefore dating a serial number is an approximation, not an absolute. For this reason, Métert should not be ruled out as a possible maker.

Fig. 4.2. The tune sheet for Fig. 4.1. Note the distinctive patterned lyre

Perhaps the piano logo was Langdorff's and maybe Métert used a different logo. Their relationship seemed to vary between being separate makers and that of loose partnership.

Fig. 4.3. The simple fruitwood case for Fig. 4.1

Fig. 4.4. Tune sheet for an Overture movement circa 1845

Both seemed to have a yearly rate of production about 660, which approximates to Bulleid's estimate of yearly output for both Métert and Langdorff.

Is there any other way of attributing this tune sheet to either Métert or Langdorff? Is the J stamped on the comb a mysterious but hidden clue? Is the tune sheet an agency-type for either of them? Could it be exclusive to Métert? These are all speculative and reasonable questions but they do not, as yet provide an answer.

F ig. 4.5. Compare a standard Métert tune sheet with both Figs. 4.2 and 4.3.

This is another example of a Geneva musical box, serial 2861, by an unknown maker with its unattributed tune sheet, Fig. 5.2. Another tune sheet example for a 6-Air key-wind musical box serial 4216 has been dated circa 1830. The pattern is not typical of early Geneva examples and may therefore be an agency type. Musique de Geneve was a popular heading favoured by Nicole from about 1835 to the mid-1840s as a statement of quality. The serial numbers do not comply with the Bulleid dating chart for Nicole but are comparable with Bulleid's chart for Ducommun Girod.

Figs.6.1, 6.2 and 6.3 show respectively the movement, tune sheet and the lid of a Langdorff musical box. It is quite a rare example of a musical box with four combs, all tuned to approximately the same scale but with slight differences in pitch. Thus, one pair of combs played in unison produce a sublime harmonie effect. The far-right comb with fewer teeth is tuned to a higher octave in order to provide a piccolo effect. The third comb was probably tuned to the same scale of the first two but with less intensity so as to produce a forte-piano effect.

The reason for this complexity was to satisfy a market that was familiar with the various styles and wanted them to be available in one musical box. The musical box arranger must have been highly skilled but also restricted by, surprisingly, the limited number of teeth in the two sublime harmonie combs. The left one had just 37 teeth and its adjacent one had 38; the reason for the slight difference is uncertain.

Circa 1845, the motif changed from a square piano to an upright and was then replaced in 1870 by the Geneva Coat-of-arms of which there is an earlier and later version. The coat of arms was then replaced by a trademark design in the form of a harp.

Fig. 5.1. A Geneva key-wind musical box with serial 2861 stamped on

The word Quatuor is French for quartet or four-piece band. It is quite a term used originally for a movement with four combs that became popular about 1885, capable of a variety of effects such as Sublime Harmonie, Piccolo,

Fig. 5.2. The unattributed tune sheet for Fig. 5.1

Fig. 6.1. A 6-air Langdorff movement with four combs

Mandolin (or Tremolo). Several makers such as Mermod, Baker-Troll and Conchon adopted the title Quatuor, sometimes casually and not always with true Sublime Harmonie effect.

Fig. 6.2. The tune sheet for Fig. 6.1 headed Quatuor. The bottom cartouche is covered by the Langdorff agent Wales & McCulloch of London.

This tune sheet pattern existed some time before 1876 and the last recorded version was 1881. It is therefore difficult to precisely date the musical box. It has the Geneva coat of arms surmounted by JHS for Jesus Hominum Salvator, (Jesus, Saviour of men) at the centre of the sun's rays. HIS is also used after the Greek spelling for Jesus, IHEOYE. The shield is made up from the halves of two shields. The left half depicts an eagle, (justice and protection); the other has one of the two keys of Saint Peter, representing the Bishopric of Geneva, also known at the time as the Protestant Rome.

The Geneva coat of arms has a banner that proclaims Post Tenebrux Lux (after darkness, light). It does not always appear on tune sheet coat of arms. Geneva, annexed by France until 1813, established the coat of arms in 1815 when it was admitted to the Swiss federation. This explains why 1815 was used as the foundation date for some makers such as Nicole.

Figs.7.1A & B are for a tortoiseshell (i.e. Hawksbill turtle shell) box. It has a gold piano hinge. The lid is unusual in having an inset embossed brass plaque depicting 'L'Entree de Jesus dans Jerusalem.' signed F. Morel. The movement has 70 teeth and was made by M Bordier of Geneva. It plays three tunes, including "No Place Like Home."

Little is known about Bordier but he was thought to be a Geneva agent in the name of Bordier Frères. Ord-Hume classed him as a maker of small musical movements for the period 1815-1830 and that he may have had an association with Roman Bordier & Cie., also watchmakers of Geneva. The late Graham Webb also listed an A.Bordier (circa 1787) of Geneva as a maker of small movements with sectional combs.

Fig. 7.1A. A tortoiseshell snuffbox with a plaque on its lid signed F. Morel.

Fig. 7.2 is also a snuffbox made from a cheaper composite material that simulates ebony, again with the name F. Morel. It has a unique piano type continuous hinge known as a Laurencekirk hinge. Laurencekirk is a small town in Kincardineshire, Scotland, known for making snuffboxes and the hinge was invented by James Sandy to make sure that snuff does not escape.

There are between 50 and 60 teeth playing two tunes. The impressed picture on the lid depicts "La Mort de Socrate".

Fig. 7.1B. The musical movement made by Geneva maker Bordier.

Morel et Cie, was a company of goldsmiths and box makers, operating in Paris from 1794-1860 so it may be that F. Morel was a part of or related to the owners of this company.

The members meeting ended about 4 pm. We must thank all of those who brought their instruments along to play and display. It was a rare opportunity to listen to music that was made for an audience as long as two hundred years ago. What would they have said? If looking down upon us, that in 2025 their products were still treasured and capable of playing the same as the day they were made.

Fig. 7.2. Another snuff box with the name F. Morel

Palais Royale – Necessaire by Bernard Novell

Early in 2025 I was asked to restore a Palais Royale or Necessaire that was a gift from the owner's husband. The box had been part of a collection of furniture, antiques, fine art, and books belonging to the Late Mr Darrell Buttery MBE (1941-2022) who was an inspiring teacher, a writer, and a champion of the civic heritage of York. The contents of his home, Knavesmire Lodge, a Georgian villa overlooking York Racecourse, was auctioned in November 2022.

Fig. 1

Described by the Auctioneer as *"A Rosewood and Marquetry Musical Necessaire, late 19th century, of rectangular form with hinged cover with floral panel enclosing a mirror and lift-out tray with various white metal, steel, mother-of-pearl and other accoutrements, on gilt metal bun feet, the cylindrical movement playing on a comb 30cm wide. Some veneer losses and repairs. Escutcheon with some loss. All four feet original and intact. Internal mirror badly broken. Box key and winding key lacking. Accoutrements appear intact but some may be replacement. Music box main spring broken. Comb in good order, no teeth lacking."* (Fig.1)

Having agreed to sympathetically restore the Necessaire, it was delivered to me for assessment. The auctioneer's description was found to be largely accurate, to a degree, but some careful work would be required to bring this up to good, restored condition while maintaining as much of the original as possible. It was decided not to re-line the interior.

As far as the case was concerned, the hinges were not original as they would have been stop hinges. The simple replacements were probably the cause of the damage to the rear panel of the case which had split, due to the heavy mirror and it being allowed to fall back when opened. The key for the brass lock was missing and the mirror would require replacement. The rest of the case was in good condition, the previous minor repairs to the veneer had been done well, so it just required cleaning and re-polishing with shellac. The four ball feet were tarnished and dirty, so these were cleaned and polished before being refitted. After repair to the rear panel, the hinges were replaced with a pair of antique stop hinges.

The tray of 'accoutrements' was in fairly good condition. It had lost the tab used to lift one end in order to remove it away from the box. Some of the blue lining paper had become unstuck around the edges, but none was missing. After a gentle surface clean, followed by some careful use of a sharp scalpel and some glue, the edges were tidied up and the surface gently brushed to remove dust.

The contents of the tray (Fig.2) included a hairbrush, thread bobbins, thread wax, letter opener, seal, were mainly made from finely carved mother of pearl. There was also a silver thimble, glass scent bottle (with silver top), scissors, awl and needle case made from spelter. One pair of tiny scissors were missing. The scissors and awl required repair as did one of the bobbins. Four tiny circular mirrors and trim needed re-gluing.

Fig. 2

The case was then cleaned using methylated spirit and 0000 steel wool before being lightly abraded with fine silica carbide paper and then given several coats of pure shellac polish, abraded again and finished with several more coats of shellac. Finally, the mirror was replaced and the original trim glued back around the edge.

Meanwhile the snuff box type musical movement was stripped and inspected.(Fig.3). Unusually it was found to play four tunes rather than the usual two for movements in this type of box. The mainspring was found to be intact, but the arbor hook had snapped off. This would be much easier to replace than the spring. The drive pin thread was partly stripped and the male Geneva stop was broken. Also, the fixing screw threads were stripped. All

relatively minor jobs for my local engineer friend. The control levers, operated from underneath the box, were missing some parts.

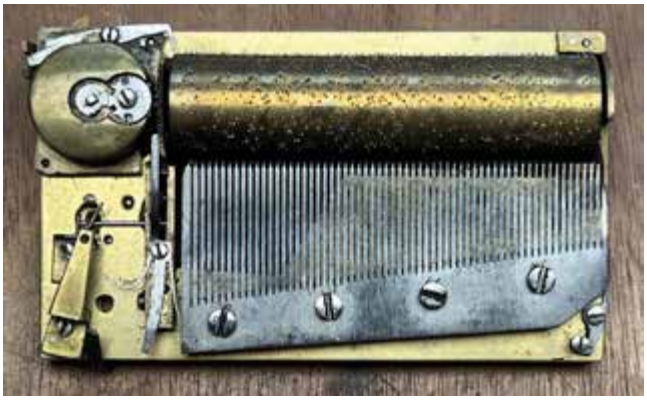


Fig. 3

All components were thoroughly cleaned, polished and then reassembled. I noted that the cylinder return spring arrangement was different to others I've seen necessitating the removal of the last treble tooth (Fig. 4). There are some words and numbers scratched into some of the components – all unreadable.

Fig. 4

A new winding key was sourced as was a key (with tassel) for the box lock.

While the damaged parts were being made, I carefully cleaned the inside of the box, re-gluing some loose papering. I then re-fixed the packing pieces that the movement rests on to keep the control levers free to move. I fashioned new brass control rods that protrude through the base of the box using small wooden beads as knobs which were pinned to the ends. (Fig. 5)

With all the missing or damaged parts now ready, reassembly of the movement was quite straightforward. A few cylinder pins required straightening before the comb was re-fitted and testing could begin.

The final job was to set the mechanism 'in register' so that it played all the right notes in the right order before fixing it back into the box and doing some final testing.

Fig. 5

The volume of the music is much enhanced by being firmly attached to the base which acts as a soundboard. (Fig.6/7/8).

The owner came to collect the box, accompanied by her sister, and was extremely pleased to have it back in a condition that can be displayed and admired.

Fig. 6

Fig. 7

Fig. 8

Some thoughts on the John Hicks Barrel Piano by Anna Svenson

Assembling the Hicks Barrel Piano

In an earlier article Paul describes the "Show and Tell" meeting at Coultershaw where I brought along our John Hicks Barrel Piano. I have included details of the instrument as well as some background information on the makers.

The Hick's family, initially cabinet makers began venturing into musical instrument production, in the early 19th century. Joseph Hicks, a key figure, established a thriving business in Bristol around 1816, specialising in barrel pianos and organs. His designs, particularly the street piano, were influential and widely copied, even by German builders. John Hicks (Jr), (1828-circa1871), established his own workshop in London, further expanding the family's influence in barrel piano production. His brother George Hicks, emigrated to the United States and continued the family tradition of building or assembling barrel pianos.
After several moves with the family members following one other from the UK to New York and back. John moved back to Clerkenwell, and lived at 24 Coburg Street from 1854 to 1857. This dates this John Hicks Barrel piano as having been made between these dates. The dimensions are:- 98cm high, 45cm wide and 36cm deep. It plays 8 tunes and has 27 notes:
G C D G A B C D E F F# G A B C C# D E F F# G A B C C# D E

Presumably the 8 tunes selected did not require C# down at the lower end!

It has a pine case veneered in Rosewood. The front panel has been repaired and originally would probably have had half round pillars on either side. There is a gathered, maroon silk cloth on the front of the panel with an elaborate badge in the centre.

On the rear of the instrument are the screw holes which mark where the cup-shaped receptacle was originally screwed. This would be used to receive the top of a pole which supported the weight of the instrument while it was being played. There are also two metal guides for the leather straps used to carry it on the organ grinder's back and a small remnant of the leather can be found underneath. These would have been necessary as it weighs around 21.5 kg.

On the left hand side is a brass mechanism for selecting the tune. The eight tunes can be changed using a knife bolt lowered into one of the eight grooves machined in the brass spindle of the wooden barrel. This extends out through the side of the case. The mechanism is designed to hold the barrel in place and also disengages the hammers from the barrel when a tune is changed or the barrel removed.

When the knife is lifted the barrel can be moved to another tune position by means of a crank that disengages the tail pins of the hammers to allow the barrel to be moved. On the right hand side is a circular removable panel, held in place by a brass catch. When released and the panel removed, the barrel can be slid out on a supporting cradle to be replaced by another. The cradle is then slid back into place.

The winding handle is on the left side of the front panel because the majority of people are right handed. When playing the piano supported on its pole, the organ grinder would hold the instrument round the back with his left arm and then the crank handle with his right hand, which would be within easy reach.

Fig 1 The John Hicks Barrel Piano

The front panel can be removed to reveal the strings in the top narrower part of the piano. These are all trichord carbon steel strings except the lowest note which has two strings with a carbon steel core and a copper winding. It has been suggested that the bass notes C and D could have once had copper winding which would make them an octave lower. These at present are an octave below the next C and D, which would make them two octaves lower.

Below the front panel is a lid which can also be removed to reveal the barrel and the row of hammers in front of the strings. These are held in a frame and each is activated by a steel pin at the back of its lower end which catches the pin in the barrel. A spring ensures a quick return.

Maybe the Hicks family had family ties with Clerkenwell. In 1612 a courthouse, the first specially constructed sessions house for justices of the peace for Middlesex (including the City of Westminster) was built in Clerkenwell called 'Hicks's Hall' (sometimes Hicks Hall) and stood there until 1782 when it was closed and demolished.

A sessions house in the UK was historically a courthouse that served as a dedicated court of quarter sessions, where criminal trials were held four times a year on quarter days.

This became the main court of petty sessions and arraignment for more serious offences, including those involving plots, attacks and minor transgressions against the state. It was also routinely used as the datum point for measuring mileage along the route from London to York and Edinburgh.

But! …..This building was paid for by a wealthy fabric merchant, Sir Baptist Hicks - later created 1st Viscount Camden and the Hall was named in honour of its patron. He was one of the justices of the peace in the county of Middlesex, and the estimated costs of construction alone were as much as £900 - in 1612!

Fig. 1. The John Hicks barrel piano. Note the 'knife' that is used to select a tune. It is held in place by the crank that sits above it. When the crank is rotated, the knife can be disengaged and the barrel moved to another tune position. The crank also moves the key frame so that the tails of the hammers disengage from the barrel pins to allow it to be moved.

Fig.2 Front Panel showing Winding handle & Rosewood veneer

Fig. 2. The front panel shows the winding handle and the rosewood veneer with its decorative inlay. Handles rotate clockwise and unscrew when rotated anti-clockwise. Care has to be taken when doing so because, if the barrel is in play and the handle screwed in too hard, barrel pins and hammer tail pins can be damaged.

Fig 3 Inside the Front Panel

Fig. 3. This shows the inside of the front panel and the brass spindle that rotates the barrel. Although the threaded handle should sit firmly into the spindle the threaded portions can wear with time and handles become quite loose. This could explain the scores made by the winding handle.

Some Joseph Hicks types have been found with a ratchet and pawl on the inside panel that locks the spindle to allow the handle to be unscrewed without causing damage. Perhaps they may have been retrofitted?

The rectangular indentation is to receive a wooden hook which holds the cover in place. There is a veneer over the inside of the front panel which may cover evidence of one having once been present. But it looks as if it is original and may be there because of the inlay on the front. The barrel cannot be wound the wrong way, because it is not possible to screw it in tightly.

Fig. 4. The rather rare John Hicks trade label on which he declares that he is a barrel organ and barrel piano maker as well as a 'barrel marker.' This probably implies that he arranges tunes and pins the barrels to order as stated at the bottom of the label: 'Self-acting pianos made to order.'

Fig 4 John Hicks Trade label

The Phoenix Welte - Story and photos by Durward Center

This article is one of an on-going series provided by our friends from abroad

Legend has it that the phoenix was a long-lived bird that would regenerate periodically by bursting into flames and then rising again from the ashes of its predecessor. While the Phoenix Welte organ that is the subject of this article did not burn, it suffered many other indignities and was nearly lost to history forever.

In 1996, a carriage house on the former estate of Col. Edward Green was about to be torn down. Col. Green's mansion was a huge stone edifice on the shore of Buzzards Bay near Dartmouth, Mass. Today, the mansion and grounds are a gated condominium community. (Figure 1).

Prior to demolition of the carriage house, three large crates were found in the second floor attic. Upon opening them, the owners found pipe organ parts. A local organ builder, Paul DeLisle, was called to determine what this was and if it had any value. He realized that it was a player organ, but called in another organ man, Nelson Barden of Boston, MA, for further information. Nelson recognized the parts as an orchestrion by Welte. Fortunately, he contacted me. I immediately made plans to drive to Round Hill to see this new discovery.

It was a Model II Welte Philharmonic Organ, No. 3784 from about 1914. Only five others of this model are known to exist. No provenance is known beyond this, but the crates were dated 1923. Time had not been kind to this organ. For years, the roof had leaked on it, mice had made their home all through the parts, powder post beetles and wood worms had infested much of the wood pipework. And it had been generally vandalized. Upon first viewing, Paul had removed the pipework from the crate and laid out the different ranks on the floor. Some pipes had literally rotted away. (Figures 3 and 4) Interestingly, the pipes had all been wrapped in red paper Welte rolls, but they were red paper Welte piano rolls, not organ rolls. Yet one more odd mystery that will probably never be solved. As the mice enjoyed their home, their urine dissolved the red dye of the rolls which then transferred into the wood pipes to become a permanent part of their history.

The chassis with the vacuum and pressure pumps was in one crate, the roll frame, stack and windchest on its back in the second and pipework in the third. (Figure 6) Apparently in its last incarnation the pumping system had been separated and located a distance away from the organ proper. Connections were found for metal wind ducts. Also, the roll frame had been relocated to the right end of the chassis. Because of this modification, it was not surprising that no trace of casework was found. Weltes of this type sat entirely free-standing within their cases.

Even in the darkness of the attic, the poor condition of this organ was quite evident. Was it worth getting just for parts? To restore it back to what it was would certainly be a major project. Being the eternal optimist, there was no doubt in my mind that it should and would be restored. So, a deal was made with the Round Hill Association and this poor abused organ made its way to Baltimore. Its restoration over a 20-year period was about to begin.

The first step was to fumigate the entire assemblage to make certain there were no unwanted visitors. Once in the shop, the organ was initially assembled as much as possible to see exactly what was there and what was not. An inventory of pipes and parts was made indicating condition and required treatment. It is important in an instrument of this rarity that any parts added or reproduced be made as close to the original as possible. If a part is missing which had an apparent function different from those seen in previous restorations, it is necessary to make a replacement using the mind set of the original builder in a design that not only does the required task, but looks as if it has always been there. (Figure 7)

Beginning at the bottom, the vacuum pump was the first component to be restored. It had sustained some water damage. No rot, but all glue joints were loose, and every screw rusted beyond use. (Figures 8, 9) New feeders and flap valve panels were made, the frame made structurally sound, the interior re-papered. The interior of Welte vacuum pumps always had an 1887 advertising poster glued on the inside. This one was no exception as remnants were found. These posters have been reprinted, so a new one was applied. Finally the typical finishing and re-leathering processes could be done, topped with red paper. (Figure 12)

The next component was the pressure pump. Being in close proximity to the vacuum pump all those years, it had sustained about the same amount of damage. The same treatment was required. Original parts were

kept wherever possible, splicing in new wood where necessary. The oversize head wood screws which hold down the access panels on top of the reservoir were too badly rusted to reuse. These screws are very distinctive to Weltes, so a machinist was found who could reproduce them. (Figures 15, and 16)

The pumping linkage was damaged and incomplete. Not a lot of wear was noticed to bearing and shafts indicating only moderate use in its working life. New iron castings had to be made for the large crankshaft pulley and one drive pulley. Also, one eccentric and one rocker arm had to be cast and machined. One drive shaft and all connecting rods had to be remade. The smaller parts could be cast using an original as a pattern. The large crankshaft pulley required a new pattern to be made.

Depending upon their location in the attic, the amount of damage from the roof leaks varied. Fortunately, the pneumatic stack and wind chest received no direct water. Bugs of some sort had eaten every scrap of pouch and valve leather in both of these components. The pneumatic stack restoration was very straightforward with typical refinishing, re-leathering of pneumatics, pouches and valves. (Figure 21) The wind chest required a complete disassembly to replace the pull wires and recover the pallet valves, new toe board gaskets and refinishing. (Figure 23) The original two-part wood wind trunks connecting the pressure pump to the wind chest were shortened and modified in the organ's previous installation, so new ones had to be made. On these wind trunks are two concussion bellows which stabilize the wind pressure. These were also missing and required fabrication.

The roll frame was missing some transmission parts, but the tracker bar and wind motor were intact. Some original parts were acquired, others had to be made. (Figure 26) Access to other Weltes was of great benefit for obtaining measurements to reproduce missing or damaged parts.

Water and bug damage was most severe to the pipework. Prolonged roof leaks had rotted away portions of many of the bass pipes. Wood worms had tunnelled through many others. New pipes were scaled and made to replace the missing ones or those too badly damaged to be saved. Some pipes if rotted only on one end, had new wood spliced into the old to keep them as original as possible. The bugs liked the softer woods such as pine, alder and spruce. The hardwoods like beech and cherry were left untouched. New and repaired pipes were stencilled with their pitch, stamped with the chest location number and finished in orange shellac. (Figures 28 and 29)

The metal pipes are made of tin. Many were crushed from poor packing, corroded from mouse urine, or had teeth marks from voracious vermin. The resonators from the clarinet pipes were all missing. All the tin pipes were sent to a metal organ pipe maker for restoration. Only two pipes had to be made new. The others were all reshaped on mandrels, cleaned, polished and given an initial voicing. Since the pipe metal was so thin, some of the areas discoloured from corrosion had to remain, another part of their history. All were lacquered for added protection. New resonators for the clarinet were reproduced at a reed pipe shop. The scale and design were copied from a previous restoration.

This organ has the full complement of percussion with it – bass drum, cymbal, tympani, snare drum and triangle. Other Philharmonics using the 100-key roll more commonly have only a bass drum with a single reiterating tympani beater. Some Philharmonic rolls are scored for all these percussions just as the 100-key piano orchestrion rolls. Either type roll will play well on this instrument.

No organ rolls were found with Welte No. 3784. Even if they had been there, they likely would have been damaged beyond use. Some original rolls have been found over time. A recut set of 50 rolls was made by Siegfried Wendel and Company in Germany. Being a "rollaholic," I regret not having more made.

During the course of restoration of this organ, it was serendipitous that another Model II Philharmonic was in the shop for restoration, complete with its case. This was the perfect pattern to recreate a replacement case for the Phoenix Welte. The case was built in Baltimore by a world class cabinet maker, Thomas Brown; a wood carver, Jim Brewster; and a French polisher, Nick Revill. The façade pipes were made in Germany by Gustav Bier. (Figures 33, 35, and 36)

With all components completed, the first assembly was begun. The stack and roll frame were tubed using tin tubing as per Welte in organs of this period. A vintage German Kalb electric motor was rebuilt and mounted in the organ for power. After blowing the wind chest out and placing the pipework, a roll was put on and the control moved to the play position. The sound of the untuned pipework was raucous, but nonetheless glorious to my ears. This rare instrument was breathing again! There were still many hours to spend in regulating the action and the final voicing and tuning of the pipework, but the end was in sight. (Figures 38, 39 and 41)

The final step was to move the organ out of the shop, into the first floor parlour and into its new case for the

first time. This was accomplished with a careful moving crew and a lot of groans. Three trial fittings were attempted. After some minor trimming to the interior braces of the case, the chassis slid into place like it had always been there. All the pipes were installed, bass drum unit mounted and swell shades connected. The organ was given a fine tuning. Now the organ could make music! (Figure 46)
After 20 years and three dogs, Col. Green's Welte, like the phoenix of legend, has been reborn. Perhaps this was not the most practical project to undertake, but it was ever so rewarding once finished. It is hoped that this Welte will be with us for many generations before its next rebirth.)

Welte No. 3784 can be seen and heard on You Tube by going to https://goo.gl/Ani1r5

Who was Col. Edward Green?

Col. Edward Green was the son of Hetty Green, deemed the Witch of Wall Street by jealous competitors. Hetty was most well known as a shrewd business woman. By conservatively purchasing mainly stocks and bonds, she turned a $6 million inheritance from her father into a $100 million fortune. Frugal to point of being termed miserly, she was said to be the richest woman in the world around the turn of the last century. After her death in 1916, her son, Edward, and daughter, Sylvia, inherited and split the estate. Edward built his home, Round Hill, near Dartmouth, MA, in 1921. Many stories abound about Hetty and her son. They can be found on the internet and in print.

A softer, sweeter sound

The Welte Philharmonic series of organs were introduced about 1910. They were offered through the 1920s as seen in a 1923 catalogue. (Figure 49) They were considered the next generation of orchestrions after the Cottage and Concert styles. In general, the Philharmonic organs were softer and sweeter than the earlier orchestrions. Brass trumpets and trombones were replaced with clarinets and bassoon registers. Two or more ranks of violin pipes were added along with a bass drum with tympani beater on the smaller organs. This softer tonality was intended to compete with residence organs such as those by Aeolian that were coming into popularity around this time.
Case styles also changed with changing tastes of the time. No longer found were the ornate Renaissance style cases with polished brass and tin pipes behind glass. Cases of mahogany in more reserved styles such as Louis XVI were becoming popular. Their polished tin façade pipes were non-speaking.
Welte promoted the rolls for the Philharmonic as being recorded from hand play. They had developed a system to record a selection of music in real time as an organist played. From this master, rolls could be produced. In reality, many of the rolls for the Philharmonics were drawing board arrangements, especially for the smaller organs such as Models I and II. The larger Philharmonics could do a much better interpretation of the hand-played rolls.

Four types of music rolls were produced for the different models of Philharmonics. They are labelled Philharmonic I&II, III&IV, and V&VI. The I&II rolls have been found in both 75- and 100-key versions. Both types of rolls have 52 playing notes. The III&IV use a 120-key scale with 88 playing notes. The V&VI use a 150-key scale with 144 playing notes.

For more detailed information on Welte Philharmonics, see "Welte Orchestrions, the Age of Opulence" in Mechanical Music, Volume 52, No. 5, 2006.

The 100-key scale

The 100-key scale was used on several styles of Welte organs including Philharmonic Organs, Piano Orchestrions and Wotan Orchestrions. The playing range of 52 notes was standard on all, but the registration was expanded for the Piano Orchestrion (PO) and slightly modified for the Philharmonic. For example, the Philharmonic scale has a Bourdon register (wood bass pipes) and a tremolo which are not used in the PO scale. The PO scale can control piano and xylophone, not found in a Philharmonic. Other similar registers have the same placement on the scale.
In the smaller Philharmonics observed, the only percussion is a bass drum. Welte number 3784 is an exception. Some I&II rolls use only a single hole to control a reiterating beater. A chain perforation allows a tympani roll. Other I&II rolls have been found that use two holes for two separate tympani beaters on the bass drum as in earlier orchestrions and in the Piano Orchestrions. Welte apparently changed their design somewhere in the course of production. Rolls in which this is found are also scored for bass drum/cymbal loud and soft, snare drum and triangle, just like the PO rolls, but with the Bourdon register included. All rolls control swell shades with a fast or slow open or close.

This article originally appeared in Mechanical Music Vol 63, No.3 March/April 2017 and is reproduced here with the kind permission of Russell Kasselman Editor/Publisher of MBSI.

Overleaf are a selection of Photos from the original article, not all are shown here because of space constraints. The figure numbers are maintained from the original article.

Fig 1. Round Hill Estate of Col Edward Green

Fig. 3 Pipes rotted away from leaking roof

Fig. 4 Pipe crate showing piano roll packing paper

Fig. 6 Roll-frame stack and wind chest on its back

Fig. 7 Initial assembly

Fig. 8 Vacuum pump is found

Fig. 9 Rusted screw holes, split valve boards, and open glue joints

Fig 12 Vacuum pump completed

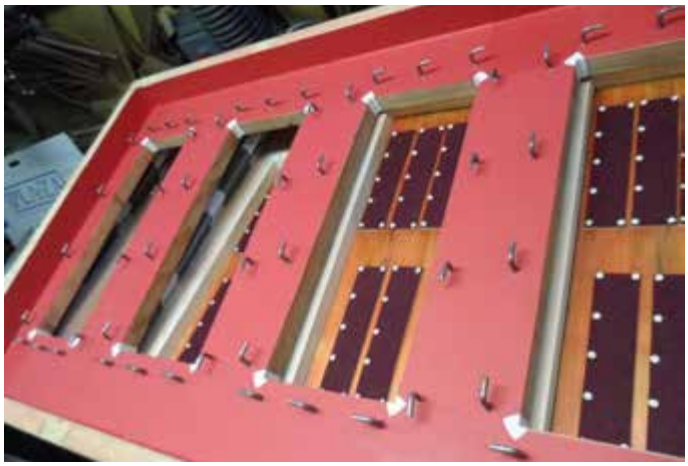


Fig 15 Interior top view of pressure pump

Fig 16 Pressure pump feeders & reservoir completed

Fig 21 Completed pneumatic stack

Fig 23 Replacing pull wires, pallet valves & toe board gaskets

Fig 26 Restored roll frame

Fig 28 Bassoon pipes

Fig 29 Wild Flote & principal pipes

Fig 33 New case under construction

Fig 35 Carved mahogany pipe shades

Fig. 36 Roman mouths of façade pipes

Fig 41 Motor & belting installed

Fig 38 Tin tubing connecting tracker bar to pneumatic stack

Fig 43 First placement of chassis into new case

Fig 39 Chassis assembly

Fig 46 View inside from top looking down

AutomataFest 2025 by David Soulsby

Not since 1066, and the arrival of the infamous William the Conqueror, has Hastings, East Sussex, seen an invasion. Not this time by a marauding Norman army but by an international gathering of automata enthusiasts arriving there for the first ever AutomataFest in the UK. They congregated at the Observer building in early May for the a three day celebration of all things automata. Constructed in 1924 this iconic building was home

Photo 1 Paul Spooner presents "The Last Judgement"

to the offices and print works of the local newspaper, the Hastings and St. Leonard's Observer. However, it was abandoned in 1985 when the newspaper moved to a new location on the outskirts of Hastings and it was allowed to become derelict. Subsequently purchased by Hastings Commons, a community-led regeneration co-operative, it has been transformed into a modern setting for business' and residents alike at affordable prices, while still preserving the history of the White Rock area of Hastings. It is home to the renowned Cabaret Mechanical Theatre (CMT) including a repair shop and flexible exhibition space to showcase their automata.

AutomataFest began on the Thursday evening allowing early registration and welcome drinks at the bar. On the Friday, the attendees wearing their identification lanyards and clutching their glossy Event programmes hurried into the auditorium. There were in excess of 150 visitors over the three days, with up to 40% hailing from outside the UK. They enjoyed two full days of presentations by leading lights from the automata community. These covered a variety of topics:- "The State of Automata Today, "Materials and Concepts", and even "Making Automata from Lego." Most of the renowned UK automatists were amongst those on stage as well as those from Holland and the USA.

Speakers limited their talks to 45 minutes which allowed the show to move along at pace while being both interesting and informative including plenty of Q&A sessions. Highlights included Tim Hunkin telling us about the evolution of his coin-op machines from his early days at Covent Garden to the use of programmable controllers in his "Automation" and "Under the Pier Show" (MMW 25).

No automaton occasion is complete without a presentation by the god that is Paul Spooner, (MMW 37) in fact such is the vastness of his body of work he was afforded two such performances on subsequent days. The automata that he showed us ranged from the legendary "Last Judgement" from early CMT days, up to the more expansive "English Spring" a more recent creation. Many more examples of Paul's skill and humour were also shown. If only the projectionist could have kept up with him!

Photo.2 Keith Newstead's Gormenghast

A break in proceedings gave everyone the opportunity to descend to the vaults below which had originally been occupied by the Newspaper's printing presses and extended into the sandstone caves. Here there was an extensive array of automata on display from the Presenters and other well known names, including the fantastic Gormenghast Castle built by the late Keith Newstead. (Photo 2 shows a fragment but the complete work is described in detail in MMW 23). Some of the impressive automata exhibited in the eerily lit tunnels are shown in Photos on the back cover of this issue.

Photo 3 The Flying Start Flea Circus

One of the presentations was by the husband and wife team of Michael and Maria Start who own a world renowned automata exhibition and restoration company called "the House of Automata" located in the remote town of Forres, Scotland. To round off a lively day the

Photo.4 Michael Start's Fire swallowing fleas

couple treated those lucky enough to get tickets, to the limited viewing of The Flying Start Flea Circus (Photo 3). The show included "fleas", seemingly performing chariot races, high wire acts, fire swallowing (Photo.4) and being shot from a cannon. Afterwards there was an exposé showing how the cunning use of magnets had simulated the amusing act.

A very interesting talk by Tom Haney of the USA brought the day to an end, Born in Cincinnati, Ohio he told us how he had become interested in mechanical movement since the age of two. He started by showing a video entitled "Boxcar Fair" which showcased his talents as an automatist as well as props and set design.

Photo. 5 "Big Ship" Automata being cranked with vigour

He also showed his rolling ball structure entitled "Interdependence", which standing six feet tall, shows eight sculpted figures passing a ball-bearing to one another from top to bottom.

In the evening at the nearby Hastings museum there was a special screening of Martin Scorcese's film "Hugo". Set in 1930's Paris, it extensively features the repair and operation of an automaton figure residing in grand station clock. Michael Start was the Automata and Horologist consultant on set and gave a short introduction to the movie with several props used in it. After the film the audience avidly sat through the end credits and then burst into spontaneous applause when they spotted Michael Start's name there on the screen.

Photo 6 Attendees attempt to build their own automata

The final day was as equally popular, with artists and vendors displaying their work in the theatre area and a chance to meet and chat with the previous day's presenters. Delegates were joined by members of the public, who were able to study the varied creations on show throughout the hall. If they were unable to figure out what automata were by description alone, they had the chance to discover these devices, *up close and personal*. Great to see adults and children alike, turning the cranks to bring the models to life (Photo 5). Not only could guests see and operate automata created by the best in the business, they could also build their own from cardboard and other random pieces (Photo 6). CMT helpers were on hand to offer suggestions.

The whole event was a tremendous success and without exception delegates said they hoped the festival would be a biennial event with AutomataFest 2027 returning to Hastings but perhaps held at a larger venue to cater for bigger numbers.

A Pair of Crown Devon Musical Jugs by David Evans

Potteries Auctions in UK has rooms in Newcastle-under -Lyme, Staffordshire and in Stoke-on-Trent in the heart of the potteries. Debbie Porter, writing on their blog site, states the following:

Photo 1 Paul Spooner presents "The Last Judgement"

"Crown Devon pottery started its life as S. Fielding & Co, which is why you'll find a variety of back stamps and markings spanning the years. Simon Fielding took over the Railway Works in Stoke-on-Trent in 1878 and started making pottery. Early pottery such as the Fielding 'majolica' really put S. Fielding & Co. on the map.

From 1921, the Crown Devon name was introduced, and the Railway Works was renamed the Devon Pottery. One of the most distinctive things about Crown Devon pottery is how it was able to 'undercut' its competitors at the time – creating lots of rivalry, but also competition, as there was now a British manufacturer that could compete with imported products.

As Art Deco became more popular, Crown Devon responded and created new ranges and finishes to meet demand, the 'mattajade' range being one of the most popular and recognisable. But it was really the work that Crown Devon did to establish the lustre ware we now know today that we should be thankful for.

Fig. 2 Thorens 1/23 movement

Whilst the Crown Devon factory closed its doors in 1982, the wonderful figurines, products and tableware sets are still very much sought after and collected today. Crown Devon pieces do well at our auctions, bringing colour and that tell-tale Art Deco style into the auction room".

Crown Devon became the UK's leading manufacturer of musical novelty items, using a range of popular British traditional songs as well as more topical ones, featuring arrangements of recent (at the time) recordings by Vera Lynn and Harry Lauder. They also produced items for export to Australia, New Zealand, Bermuda and South Africa, each with locally popular melodies. The firm produced other musical novelty items in addition to those associated with drinking. They also made personal sanitary ware!

The two musical jugs illustrated were purchased recently in the Victoria BC saleroom of Lunds Ltd. Both have stamps stating "Crown Devon Fielding's" and with pattern numbers 726686 (John Peel) and 812297 (Daisy). Both are in perfect condition.

Fig.3 Views of "Daisy" Water Jug

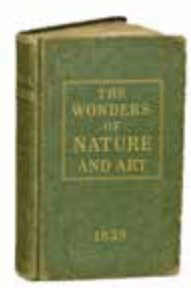
The John Peel jug is strictly a flask or decanter with a stopper (Figure 1), which appears to be original. The fox handle is beautifully modelled, moulded and decorated. The flask is 8" high and has a Thorens 1/23 movement (Figure 2). The wood base is numbered 193/3 in pencil. It appears that earlier versions had a slightly larger movement, perhaps 1/28, so this example may be later in the production period, perhaps later 1930s. The flask has the full text of the song printed on the front. According to Wikipedia the song is a famous Cumberland hunting song written around 1824 by John Woodcock Graves (1795–1886) in celebration of his friend John Peel (1776–1854), an English fox hunter from the Lake District. The melody is said to be an adaptation of a popular border rant, "Bonnie Annie."

A different version, the one that endures today, was musically adapted in 1869 by William Metcalfe (1829–1909), the organist and choirmaster of Carlisle Cathedral.

"Daisy Bell (Bicycle Built for Two)" is a song written in 1892 by British songwriter Harry Dacre with the well -known chorus "Daisy, Daisy / Give me your answer, do. / I'm half crazy / all for the love of you", ending with the words "a bicycle built for two". The song is said to have been inspired by Daisy Greville, Countess of Warwick, one of the many mistresses of King Edward VII. The water jug or pitcher shown here (Figure 3) has a Lador 1/28 movement with a fine ringing tone. The wood base is numbered 6460.

These jugs were popular in the Art Deco period but went out of fashion shortly after it. We were fortunate to acquire them for CA$30 each at the auction.

Extracts from the book "The Wonders of Nature and Art" with commentary by Paul Baker



These extracts are from the book "The Wonders Of Nature And Art" printed and published by William Milner, Halifax in 1839. I have added notes giving additional information and comments.

A The Curious Clock at Strasbourg

Photo. 1 shows the present day clock in Strasbourg Cathedral.

At Strasbourg there is a clock out of all others the most famous, invented by Conradius Dasipodius, in the year 1571. Before the clock stands a globe on the ground, showing the motions of the heavens, the stars, and the planets. The heavens are carried about by the first mover, in twenty-four hours. Saturn by his proper motion is carried about in thirty years; Jupiter in twelve; Mars in two; the Sun, Mercury, and Venus in one year; and the moon in one month.

In the clock itself there are two tables on the right and left hand, showing the eclipses of the sun and moon from the year 1573 to the year 1624. The third table in the middle, is divided into three parts. In the first part, the statues of Apollo and Diana show the course of the Year, and the Day thereof, being carried about in one Year; the second part shows the Year of our Lord, and the equinoctial days, the hours of each day, the minutes of each hour, Easter Day and all other Feasts, and the dominical letter. The third part has the geographical description of all Germany and particularly of Strasbourg and the names of the inventor and all the workmen.

Photo 1. The third clock as it is today in Strasbourg Cathedral

Photo 2 Death strikes the Hour on the Clock

In the middle frame of the clock is an astrolabe, showing the sign in which each planet is every day; and there are the statues of the seven planets upon a round piece of iron, lying flat; so that every day the planet that rules the day comes forth, the rest being hid within the frames, till they come out by course at their day; as the sun upon Sunday, and so for all the week. And there is also a terrestrial globe which shews the quarter, the half hour, and the minutes. There is also the skull of a dead man, and the statues of two boys, whereof one turns the hourglass, when the clock hath struck, the other puts forth the rod in his hand at each stroke of the clock. Moreover, there are the statues of Spring, Summer, Autumn and Winter, and many observations of the moon. In the upper part of the clock are four old men's statues which strike the quarters of the hour; the statue of Death comes out at each quarter to strike but is driven back by the statue of Christ with a spear in his hand, for three quarters. But in the fourth quarter, that of Christ goes back, and that of Death strikes the hour with a bone in his hand, (Photo 2) and then the chimes sound. On the top of the clock is an image of a cockerel, which twice in the day crows aloud, and flaps his wings. Besides, this clock is decked with many rare pictures; and, being on the inside of the church, carries another frame to the outside of the wall, wherein the hours of the sun, the courses of the moon, the length of the day and such other things, are set out with great art.

Notes on A

Conradius Dasypodius (1532-1600) was a Swiss astronomer, mathematician and writer, professor of mathematics at Strasbourg, Alsace. His published works included a contribution about the heliocentric theory of Nicholas Copernicus (1568).

Dasypodius designed the astronomical clock for Strasbourg cathedral, built between 1572 and 1574 by Isaac and Josias Habrecht, clockmaker brothers from Shaffhausen, Switzerland. This monumental clock represented the synthesis of the most advanced scientific knowledge of the era in the domains of astronomy, mathematics, and physics. The mechanism remained in the cathedral until 1842, when it was replaced by a clock built by Jean-Baptiste Schwilgue, the third astronomical clock of the cathedral. He produced a number of clocks for church towers of which the only one still functioning in Strasbourg is that of Saint Aurelia's church. Dasypodius's clock is happily still in existence, currently residing in the Strasbourg Museum.

Fig. 3 Impression of Weeks' Museum of Mechanical curiosities

B. Automata tarantula spider

This surprising piece of mechanism, made of steel, was exhibited at Week's Museum, Titchborne Street, Piccadilly. This singular automaton comes independently out of a box and runs backward and forward on a table; stretches out and draws in its paws (sic) as if at will, moves its horns and claws and opens them with ease. This wonderful little figure must fix the attention of the curious, having no other power of action than the mechanism contained in its body. The thing might have been thought impossible on account of its smallness and the difficulty of putting together, it being composed of 115 different pieces.

Notes on B

Thomas Weeks (1743-1834) established his museum of mechanical curiosities in Tichborne street around 1788. Weeks followed the fashion established by James Cox and Henri Maillardet (of Jacquet Droz) for exhibiting highly ornamental automaton clocks as part of London's great trade attractions. When James Cox disposed of his museum, by lottery in 1775, a number of pieces including the well-known automaton silver swan, now at the Bowes Museum, Barnard Castle, were purchased by Weeks who subsequently exhibited them in his own museum. According to "the picture of London 1802" the grand room, which is 107 feet long and 30 feet high, is covered entirely in blue satin and contains a variety of figures which exhibit the effects of mechanism in an astonishing manner (Fig 3).

In 1819 Richard Rush, the American ambassador to London, visited Weeks' exhibition where he was told that the clocks on display were alone worth £30,000. Other exhibits included the Silver Swan, already mentioned, life-size musicians, self opening umbrellas, a Caterpillar that fed on the foliage of a golden tree, an ouse made of oriental pearls and the 115-piece tarantula spider. There was also a figure of an old woman who came out of a cottage, on crutches, and walked about in a natural manner. Singing birds, dancing peasants, windmills, the expanding and closing of flowers and other amusing novelties.

Weeks' exhibition did not outlast his death, in 1834. Most of his treasures were auctioned at that time, the remainder sold for a pittance at Christie's, when his last surviving son died in 1864.

Automaton opera

*Towards the end of the 17th century, Father Truchet of the Royal Academy of sciences, constructed for the amusement of Louis XIV, an automaton consisting of a kind of moving pictures, which was considered a masterpiece in mechanics. One of these pictures which the monarch called his "Little Opera", represented an opera in five acts, and changed the decorations at the commencement of each. The actors performed their parts in pantomime. This moving picture was only 16 1/2 inches in breadth, 13 inches or 4 lines in height and one inch or 3 lines in thickness (*1). For the play of the machinery, the representation could be stopped at pleasure and made to re-commence at the same place by the operation of a catch.*

(*1) One line=1 Twelfth of an inch

Photo 4 Maillardet's Writing Boy Automaton

Automaton Coach And Horses

A more extraordinary piece of mechanism than the foregoing is that described by M.Camus, who says he constructed it for the amusement of Louis XIV when a child. It consisted of a small coach, drawn by two horses, in which was the figure of a lady with a Footman and Page behind. According to the account given by M.Camus himself, this coach being placed at the extremity of a table of a determinant size, the Coachman cracked his whip, and the horses immediately set out, moving their legs in a natural manner. When the carriage reached the edge of the table, it turned on a right angle and proceeded along that edge. When it arrived opposite to the place where the king was seated, it stopped, and the Page getting down, opened the door, upon which the lady alighted having in her hand a petition which she presented with a curtsey. After waiting some time, she again curtsied, and re-entered the carriage; the Page then resumed his place. The Coachman whipped his horses which began to move, and the Footman running after the carriage jumped up behind it and the carriage drove on.

C. Writing Automaton

M.Maillardet constructed a writing boy (Photo 4) who is exhibited kneeling on one knee. An attendant, having dipped his pencil and laid the paper before him, he executes drawings and French and English sentences in writing, of a very superior description. Every natural motion of the fingers, elbows, eyes etc. is correctly imitated. The first of these figures, "the artist," stated to have cost him the sum of £1500 in its construction.

Notes on C

The famed "Writing Boy" automaton was built in London around 1805 (*2) by celebrated Swiss mechanician Henri Maillardet (1745-1830). He spent a period of time in the shops of Pierre Jacquet-Droz (who also produced a Writing Boy automaton) and was in the business of producing watches, clocks and automata with his brothers Jacques-Radolphe and Jean-David, he produced a series of automata depicting magicians.

The Writing Boy or "draughtsman writer" is spring activated and can draw pictures and write verses in French and English languages. The motions of the hand are produced by a series of cams located on shafts contained in a cabinet that forms the base of the automaton which produces the necessary movement to complete seven sketches and the text. It is believed that this automaton has the largest cam-based memory of any automaton of the period. First presented to the Franklin Institute in Philadelphia in 1928, the automaton was of unknown origin, but once restored to working order, the automaton itself provided the answer when it penned the words "written by the automaton of Maillardet". Happily Maillardet's Writing Boy is still with the Franklin Institute, further repairs totalling about 70 hours of work were completed in 2007 bringing the automaton once again back into working order. The Writing Boy automaton of Pierre Jacquet-Droz built around 1774 can be seen today at the Musée d'art et D'histoire at Neuchâtel, Switzerland.

*(*2) Various sources give c. 1800, 1805, 1810)*

D. Speaking Machine [1]

*M.Kempelon (*3) an Hungarian, lately made a speaking machine. It consisted of a reed, or glottis, or air chest with valves, bellows for lungs, a mouth and jaws and nostrils. It pronounced most letters perfectly but D,G,K&T imperfectly, and even long words and sentences with great facility.*

**3 (sic) Wolfgang von Kempelen (1734-1804)*

Notes on D

Johann Wolfgang Ritter von Kempelen (1734 to 1804) was a Hungarian author engineer and inventor chiefly remembered for his chess playing automaton hoax "The Turk" and for his speaking machine. Born in Pressburg (today's Bratislava,Slovakia) which was then the capital city of the Kingdom of Hungary. Here he studied law and philosophy also being interested in mathematics and physics. Besides Pressburg's native tongues of German, Hungarian and Slavic, Von Kempelen also spoke Latin, French, Italian and some English and Romanian which he learned during his travels. Kempelen's speaking machine began development in 1769, the same year that he completed his far more infamous contribution to

history. This was "The Turk" his chess playing automaton, later revealed to be a far reaching and elaborate hoax, with a chess playing human concealed within its innards. But while the Turk's construction was completed in six months, the speaking machine occupied the next 20 years of his life. After several attempts he ultimately produced a design that he felt was a functional representational model of the human vocal tract.

The contributor to "*The Wonders of Nature and Art*" had evidently not seen an illustration of the machine, as his reference to a mouth and nostrils were merely circular holes drilled into a rectangular wooden box. (Fig. 5) Also the "long words and sentences" alluded to is rather an exaggeration of the machine's capabilities. "I go" being an example of an English language sentence it could produce.

Shortly after the completion and exhibition of this third

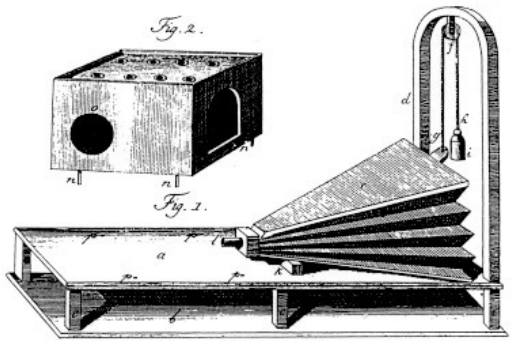


Fig. 5 Drawing of Kempelen's Speaking Machine

design speaking machine in 1804, Von Kempelen died, although not before publishing a comprehensive 456 page book containing every technical aspect of the construction of the speaking machine and his studies of the human vocal tract. In 1837 Sir Charles Wheatstone resurrected Von Kempelen's work creating an improved replica of his machine, which was shown to a young Alexander Graham Bell. A more recent replica of Von Kempelen's speaking machine was built 2007 to 2009 at the department of phonetics, Saarbrűcken University, Germany. Other contributions to humanity include the construction of steam engines, water pumps, a pontoon bridge in Pressburg (1770), a steam turbine for mills (1789) and a typewriter for Mozart's friend, a blind Viennese pianist Maria Theresa von Paradis (1779). He also built a theatre house in Budapest (1790) and the famous fountains Schōnbrunn at Vienna (1780). He was also a talented artist and etcher and wrote poems and epigrams.

Although Von Kempelen's name should today be more widely recognised for his contribution to scientific knowledge, he is at least remembered by the Wolfgang von Kempelen computing science history prize, named in his honour and also a High school in Budapest. His speaking machine survives in the Deutsches Museum in Munich.

E Speaking Machine [2]

We have often heard it said of a clever automaton, "it can do everything but talk." We are now to have one it seems that can do even that. The Carlsruhe Gazette mentions a piece of mechanism which perfectly imitates the voice of a child, and produces distinctly every word with its proper undulation. The mechanism it says, is very simple, consisting of 16 levers answering to the 16 simple sounds moved by so many keys, like those of a harpsichord so that these, properly touched, produce any articulate sounds required.

Notes on E

A more sophisticated talking machine was constructed in the year 1840 by Austrian Joseph Faber, his first attempt to create such a machine. Although Faber is a little known name in history, the work of this obscure inventor has had a profound effect on life as we know it today. By creating the first viable mechanical speech synthesiser (his third talking machine of 1845). Faber provided a critical stepping stone in Alexander Graham Bell's work which ultimately led to the development of the telephone. With near maniacal focus Faber dedicated his life to simulating human speech. While there had been previous attempts since the 1200s, Faber's was the first machine to come close. He was born around 1800 in Freiburg, Germany he studied mathematics, physics, and music at the Imperial Royal Polytechnic institute in Vienna. Recovering from a serious illness he fell into a state of hypochondria from which he could only free himself by undertaking mechanical tasks. When he

Fig. 6 Drawing of Faber and his Euphonia

discovered Kempelen's "On the Mechanism of Human Speech" published in 1791, his goal changed to creating a talking machine. His first attempt at such a machine, he demonstrated in Vienna in 1840 and the following year also to the king of Bavaria. With the reception less

than exciting, he reportedly destroyed that first talking machine and subsequently moved to the United states.

He demonstrated his next attempt "The Marvellous Talking Machine" in 1844. This time he attracted some attention in the scientific community, but no financial support, he destroyed that machine as well. In 1845, Joseph Henry, director of the Smithsonian institute visited Faber's workshop to see the latest iteration of his invention himself. A respected scientist, Henry was often called upon to determine if an invention was legitimate or a hoax. He was deeply impressed with Faber's work. Early in December 1845 Faber again demonstrated his talking machine in Philadelphia but again did not garner the finance he desperately needed.

However in the summer of 1846 the great showman P.T. Barnum took Joseph Faber and his talking machine now called "Euphonia" to the Egyptian hall in Piccadilly London where people paid one shilling each to see the marvellous talking machine. "Euphonia" was mounted on a gilt table that allowed spectators to examine its complex mechanism from all angles, to prove that it was not a hoax like so many others that simply hid a human speaker under the table. At the helm of the machine was a pretty albeit stony-eyed female mask. The face had functional lips fashioned from India rubber, a tongue, rubber palate, lower jaw, and cheeks. Faber played his talking machine with a keyboard and foot pedals much like an organ. Its various mechanisms simulated the physical structures and processes of human speech because the basic driver of the machine was a large bellows. Audiences even felt her "breath" as she spoke. The "Euphonia" keyboard manipulated 17 levers that admitted compressed air through reeds, resonators, baffles, and other apparatus to produce the basic phonemes of language. Apparently any combination of vowels and consonants in any European language could be produced and with Faber or another skilled operator she could even talk, sing, whisper and laugh.

Unfortunately though, the response from the audience was less than desirable. John Hollingshead, a journalist, and London theatre manager published a first person account of Faber's performance at the Egyptian Hall. It seems unnecessarily mocking and cruel however true it might have been:- "The exhibitor a sad-faced man….. not too clean, his hair and beard sadly wanted the attention of a Barber …the professor with a slight German accent put his wonderful toy in motion…. produced words which slowly and deliberately in a hoarse sepulchral voice came from the mouth of the figure as if from the depth of a tomb. As a crowning display the head sang a mournful version of "God save the Queen" which suggested inevitably God save the inventor ! ….. sadder and wiser, I and the few visitors crept slowly from the place leaving the professor with his one and only treasure, his child of his infinite labour and unmeasurable sorrow. He disappeared quietly from London and took his marvel to the provinces where it was even less appreciated. Although even the Duke of Wellington gave an endorsement. Through The Times, sadly the public were not impressed with "Euphonia", it seems that unlike the bird after which she was named, her voice and demeanour were just too creepy.

After returning home Barnum made "Euphonia" part of his regular show for several years but even with that, Faber never found the financial success or accolades he so desired. Reportedly in the 1860s he destroyed Euphonia and ended his own life. For all his previous mockery though, even Hollingshead later saw the importance of Faber's work .
"…. As a reward for this brutality, 30 years later, the world was presented with the phonograph (*4)"
But one person who was deeply impressed by Euphonia in London in 1846 was Melville Bell, the father of Alexander Graham Bell. Bell senior was a student of acoustics with a special interest in speech production. He took his 16 year old son to see Charles Wheatstone's talking machine which he considered to be inferior to Faber's. The visit had a profound effect on Bell Junior's future work and the rest as they say, is history.

*4 This is a reference to Edison's "Perfected" phonograph of 1887 which started to become commercially available during the mid 1890's

Shorts

Just a few short articles that Bernard Novell has written to close out this edition.

An Unusual Manivelle Player

I spotted an unusual Manivelle disc player with 12 discs for sale by auction recently. The auctioneer's description was scant to say the least "A 19th century musical box, transfer decorated hinged lid, playing 11cm discs, together with a number of spare discs and key". But the illustration on the lid appealed to him as did the mechanism which was clearly a Manivelle.

Bernard thought that the box may have been made by Hevetia but upon receipt he discovered that the accompanying discs were identical to the 100 or so that he has for a Thorens AD30 and the penny dropped! The

mechanism is somewhat different to the well-known AD30, although the disc is loaded in the usual way, with a not too dissimilar pressure arm holding it in place. There is a very simple worm screw arrangement to drive the disc from above. Unlike many Manivelles, there is no mechanism to stop the disc being wound backwards. The disc can be played with the lid open or closed as there is a hole in the lid for the winder shaft to fit through. Photographs of the Manivelle accompany the article..

Rare 12/37 Two per turn Tabatiére from Charles Ullmann

Every Sunday morning I receive two emails from two auction sites with an update on music boxes added to the sites within the last seven days. I peruse the various items over a leisurely coffee as I'm always on the lookout for something different for my collection. There are certain criteria that need to be met as I become more discerning – or should that be fussy – but I enjoy browsing even if the box is not that desirable. Every so often one jumps out at me, and I have to look closer. This small burr walnut box of, fairly common design, has a dark wooden shield cartouche inlaid into the centre of the lid. The auctioneer's short description was "A small burr walnut music box with 12 aires, much wear" (see overleaf) The 12 aires intrigued me, as this number of tunes on a small movement is rare. The pristine tune sheet con-firmed the description, which is for a two-per-turn movement, so just short snippets. On closer examination of the photos, the unmistakable stamp of Charles Ullmann was prominent on the tune sheet. (Photo 2). I decided to place a modest bid and was surprised to win the auction. On receipt of the box I found that the "much wear" description was a bit exaggerated considering this box is over 125 years old. All is original apart from a minor repair to the veneer

on the side. The lid is slightly warped and a lot of glue has been added around the underside of the base, presumably to hold it in place. None of this really shows so when I get around to cleaning and restoration, a re-polish is probably all I will need to consider.

As for the movement, this also carries the Charles Ullmann mark, stamped beside the governor. 100315 is stamped into the rear of the bed plate. This does not correspond with serial no. 6057 13 written on the tune sheet.

The mechanism has an auto tune change system common on many modern movements, so there is no way to repeat a tune. This, the serial no. 6057 and the dates that most of the tunes were composed suggest a date of manufacture of around 1898.

The teeth are all intact and there are just a few bent pins to straighten so an altogether good buy.

The tunes are all from musicals composed at the end of the 19th century, except for the last one:

1. A Runaway Girl – Ivan Caryll (1898)

2. John Bull in the China Shop – Charles Godfrey (1887)

3. Soldiers of the Queen – Leslie Stuart (1895)

4. Geisha, The Interfering Parrot – Sidney Jones (1896)

5. A Greek Slave - Sidney Jones (1896)

6. Honeymoon March – George Rosey (1894)

7. Geisha, Chin Chin Chinaman - Sidney Jones (1898)

8. Our Lodger's such a nice young man –Fred Murray (1897)

9. The Belle of New York – Gustav Kerker (1897)

10. Circus Girl, The Way To Treat A Lady – Ivan Caryll (1896)

11. Circus Girl, Dance of the Clowns – Ivan Caryll (1896)

12. Sally in our Alley – Henry Carey (1725)

A little about the composers:

Ivan Caryll (1861-1921) was a Belgian born composer of operettas and Edwardian musical comedies

Sydney Jones (1861-1946) was an English conductor and composer most famous for composing the musical scores for a series of musical comedy hits in the late Victorian and Edwardian periods. His most famous musical was The Geisha.

Leslie Stuart (1863-1928) was an English composer of Edwardian musical comedy.

Charles Godfrey (1854-1900) was born Paul Lacey. He was a musical hall entertainer.

George Rosey – no information

Fred Murray was a prolific songwriter. He died in 1892

Gustav Kerker (1857-1923) was a Kingdom of Prussia born composer and conductor who spent most of his life in the United States becoming a musical director for Broadway theatre productions and wrote the music for a series of operettas and musical. His most famous was The Belle of New York.

Henry Carey (1687-1743) was an English poet, dramatist and composer. He is remembered as an anti-Walpolean satirist and also as a patriot.

1/18 Swiss Chalet Restoration

In respect of family memories, a small but sentimentally significant little Swiss Chalet music box found its way into my workshop recently. Over the years it had taken a battering from three siblings who played with it often. There was a broken and detached roof, damaged hinge, detached trim and the movement, which didn't run, was missing several teeth.

The chalet itself was a relatively easy fix. Firstly, a bit of a clean-up then some glue in the right places. Finally a new hinge pin and all was well.

The 18 note movement, playing Le Vieux Chalet (A Small Wooden House), on the other hand was not going to be so easy, or so I thought. It was made by Cuendet rather than Reuge and therefore fairly rare, so replacement parts were likely to be difficult to find. I contemplated a replacement using a different make and different tune, though that would mean a loss of true meaning for the family.

Of the seventy or so orphaned movements I have in stock, I was astonished to find that there was just one by Cuendet which was exactly the same size AND it played the same tune! What chance of that I asked myself?

The original movement parts (spring, cylinder, governor etc.) were in very good condition but missing four teeth from the comb. The donor movement had all its teeth intact, but the rest was not so good, so I decided that the best course of action was to clean up the original and swap the combs.

Having done this, all worked perfectly, but I found that the control mechanism which consisted of a piece of bent wire, fed down a hole and linked to the sprung brake, stuck repeatedly. I replaced it with a custom-made brass rod and new spring arm. I also inserted a small screw into the side of the lid as the old rod had worn an indent in the wood which would only get worse. One very happy customer!

The Completed Philharmonic Welte Organ

A Few of the Many Items on display at AutomataFest