From the Editors' Desk

There is great excitement among our very hard working volunteer committee over our latest AMBC book, the long-awaited Collectors' and Restorers' Handbook. Many people have contributed to produce this fact-filled and practical guide, which is currently being translated into German for even wider distribution.

On the subject of restoration, we have articles from Ted Brown - one on repairing manivelles which has some useful tips and 'watchpoints' for those who undertake these things, and another on tackling musical automaton pictures. If you do take the plunge and make one of these pictures from scratch, please tell us! Then we can share your experience and skill. Better still, take it along to a Chanctonbury Ring meeting and sit back and bask in the admiration of other members!

We welcome another article from David Soulsby - not on Penny Arcade machines this time but on a remarkable exhibition he found and visited in Glasgow at the Sharmanka Kinetic Theatre. The kinetic sculptures/automata created by Russian born Eduard Bersudsky are tantalisingly described and photographed in this detailed record of David's visit and you may well feel that you should make your way North this summer to experience the exhibition for yourself.

We are indebted to Chris Fynes for sharing his tips on the safe restoration of cylinder musical boxes. A beautifully illustrated step by step documentation of his work. It is good that he took time out from his work on behalf of the Association to accompany Juliet and Paul on the Birthday trip to Rüdesheim. Chris has been heavily involved in the production of the new book.

Clockwork has been a lifetime's interest for the Editors who as fairly penniless students began collecting antique pocket watches before progressing to self-playing musical instruments and musical boxes. Therefore when we discovered an example of Heinrich Zumsteg's patent for a longer playing musical box this piqued our interest to further research the innovation and to share the details with you.

We hope there will be something to interest you or maybe inspire you to contribute something for the next issue of Mechanical Music World.

Best wishes from the Committee, officers and editors.

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Chairman's Report

In this report I have to say I am really pleased with our Association. For years I have wanted to see a new book on restoration taking forward the best present workshop practice. And now we have one! It is promoted in this issue. This is a great addition to 'The Music Makers of Switzerland', the awardwinning comprehensive review of the Swiss musical box manufacturers, 'Collecting Affordable Musical Novelties' and the 'Introduction to Mechanical Music' and its companion volume. An amazing publishing accomplishment for the Association.

The Organ Day went well and the picnics were supplemented with delicious quiches and sausage rolls made by one of our new members. We are all pleased to know that he has promised some of his home-made chutney for the selection of plough-mans' lunches provided at the next Chanctonbury Ring meeting on 18th August.

The musical boxes, organettes and other instruments brought along to the meetings provide many pleasant surprises. There are frequent mysteries with unmarked or lesser known makers. Our more experienced collectors may well be able to help with the identification of any unrecognised music and quite often the instrument's maker, so please continue to bring any of your items along for us all to share.

I have a fairly large collection of facsimile tune sheets so if you are missing one I may be able to help. Ted Brown

Publication Dates for "Mechanical Music World"

Winter issue 28th January; Spring issue 28th April; Summer issue 28th July; Autumn issue 28th October

We need articles and advertisements (unless repeats) to reach the Editors at least one month in advance of these dates. Please allow more time for involved articles with many illustrations.

Officers of the AMBC Ted Brown Chairman 01403 823533 **Deputy Chairman & Treasurer** Paul Bellamy 01634 252079 Email: mushinman46@gmail.com **Events Secretary & Web site** Juliet Fynes **Design & Photography** Chris Fynes Secretary/Subscriptions Kay Brown 01403 823533 **Research & Publications Committee:** Don Busby Paul Bellamy Ted Brown Editors David & Lesley Evans 001 250 746 5652 mechmusicmuseum@aol.com 4920 Bench Road, Cowichan Bay BC, V0R 1N1 Canada AMBC website: www.ambc.org.uk Email: info@ambc.org.uk Feel free to contact any of us.

AMBC Meeting Dates

Please contact the host to ensure a place is reserved and for needs to be catered for. Include any guests you may be thinking of bringing. Also please advise if a booking has to be cancelled so that places can be offered to others.

Chanctonbury Ring Meetings Diary

Sunday August 18th Lunch supplied

Saturday November 23rd Lunch supplied

All meetings take place at the Old School.

Please let Ted know if you intend to come.

13th International Waldkirch Organ Festival 2020 19th to the 21st of June 2020

Many small and big organs will be played and admired throughout Waldkirch. An accompanying and supporting program with concerts, cabaret, minstrels, lectures and street art is prepared by the organ festival committee. For interested or active organ players there is the possibility under the email **orgelfest@stadt-waldkirch.de** to register to be admitted to the selection process for active participation. Contact for more information: **Katja Stumpe**

Stadt Waldkirch Dezernat II - Kultur Bildung und Soziales Abteilung 2.1 Kultur Stadtarchiv Freie Straße 17, 79183 Waldkirch. Tel: +49 7681 474 08 57 Fax: +49 7681 404 179

 $\label{eq:constraint} Email: \ Katja. Stumpe@Stadt-Waldkirch.de \ or \ orgelfest@stadt-waldkirch.de \\$

Web: www.stadt-waldkirch.de or www.facebook.com/stadt.waldkirch

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AMBC Meeting

Sunday 28th April at The Old School

This meeting was remarkable for the variety of the items brought for play, display and discussion.

The meeting featured some toy and novelty gramophones. Juliet Fynes, who researches and has published a number of articles and booklets on novelties and children's toys of the 20th century and up to the present day, demonstrated a Selcol Kid-E-Phone as featured in Issue 10, Autumn 2017, of Mechanical Music World (Fig 1). The cardboard box had survived the nursery in very good condition and claimed around its sides that when played: 'Your favourite nursery rhymes come to life!' As with all advertising statements, it was a matter of opinion as to the gramophone's ability to achieve sufficient acoustic perfection to satisfy even a child's ear. It certainly could not. The quality of the sound box was incapable of doing justice to the record, as was demonstrated later by Paul Baker - and the reason why will be explained in a later article.



Fig 1: Juliet Fynes demonstrates a Kid-E-Phone.

Paul demonstrated several pre-war German tin-plate gramophones, by Bing and Nirona, belonging to him and other members, (Fig 2). Also, on the table was Juliet's collection of children's disc records including one of the Bubble Book series. These are quite delightful, actually very well made and capable of good sound reproduction when played on a quality gramophone, as demonstrated later by Paul Baker.

The little round Mikiphone can also be seen. This was demonstrated by Chris Fynes and is described more



Fig 2: Paul Baker with tin gramophones. The Mikiphone can be seen in left foreground.

fully in a separate article. The interest in miniaturisation was also illustrated by Paul Bellamy's Russian camera phone. It is an exact and extremely well-made copy of a Thorens Excelda, but with the Russian maker's name. They are so named because they looked like an early form of Kodak camera. In fact, this one looks like some of the modern hi-tech digital versions but these are much smaller. Of course, even the modern ones can record and play music; what once went around has now come around once more.

Like all these compact portable gramophones, which could be fitted into a pocket (though very heavy), they were serious musical instruments capable of playing large diameter records. Fig. 3 shows it packed away



Fig 3: Russian clone of a Thorens Excelda record player.

with its leather strap handle. Fig. 4 shows it assembled and in play. Fig. 5 shows the compact parts before assembly. It is a bit like a Chinese puzzle because every part, winding handle, sound box, and horn, has to be in exactly the right position to be able to close it up. One of our members spent a fascinating time trying to put the bits in place without success.



Fig 4: 'Excelda' in playing mode. The soundbox is based on the HMV 5A.



Fig 5: Packed away.

Fig. 6 shows Ted examining a segmented comb movement shown in close-up, Fig. 7. The case is unrestored and in original condition with exposed controls, an early 4-air Ducommun-Girod key-wind musical box, serial 13172, dating about 1838. There was no tune sheet but the musical programme and condition of the movement were excellent, so it was a joy to hear music from nearly 180 years ago.

Another member brought along a musical box for play and information, this one serial 8928, Figs. 8 & 9. Unfortunately, with an unknown maker and no tune sheet, few were able to add to its provenance. One of the tunes was Scots Wha Hae. An unintelligible title to most except patriotic Scots! The words: *Scots Wha Hae with Wallace bled, Scots wham Bruce has aften led, Welcome to your gory bed, Or to Victory!* are a Scottish Gaelic mixed with English. It was once considered to be a Scots national anthem with words written by the famous Robbie Burns; the spellings are correct! Another was the Scottish air Bonny Dundee.



Fig 6: Ted Brown demonstrates Ducommun-Girod 13172.

The title and words are from a poem written by Sir Walter Scott (who was a Scot) in 1825. It was in honour of John Graham, 7th Laird (lord) of Claverhouse. John led the Jacobite rebellion against the English in 1689 in which poor John died.

So, who were the Jacobites? It was a name derived from Jacobus, meaning James, a Catholic king of the royal house of Stuart and King James of Scotland. A Jacobite belonged to a political movement in Great Britain and Ireland that aimed to restore the House of Stuart to the thrones of England, Scotland, and Ireland. After James II and VII of Scotland went into exile after the 1688 Glorious Revolution, the English Parliament said he had effectively abdicated by 'abandoning the throne of England'. It was a cunning political



Fig 7: Sectional comb of Ducommun-Girod 13172



Fig 8: Scottish airs box no. 8928

machination that provided Parliament an excuse to offer the vacancy to his Protestant daughter Mary II and son-in-law and nephew William III as joint monarchs. It was the only time that Great Britain had a joint King and Queen. Of course, it was all to do with religious fears at the time between Catholic and Protestant communities. Coincidentally, another Jacobite song features in Ted's article on repairing a manivelle (page 10).

Such were the social stresses of the times, all to be found hidden away in the musical programme of an antique musical box! But to balance these wonderful tunes there were, surprisingly, two other famous tunes: Rule Britannia and Home Sweet Home. Rule Britannia was written by Thomas Arne in 1740; the music of Home Sweet Home was from an opera called Clari, The Maid of Milan written by American actor and dramatist John Howard Payne with music by Sir Henry Bishop in 1823.



Fig 9: The Scottish airs box open

Next was a movement by Rzebitschek that particularly aroused the interest of Paul Bellamy, seen here with another of the Bohemian musical boxes by Olbrich, Fig. 10. Paul has been updating the dating charts of the late HAV Bulleid, so this example was of particular interest. In past times, Bohemia was then part of the modern-day Czech Republic. The movements made by both Anton Olbrich of Vienna (Wien) and the makers of Prague (Praha) were intended for musical clocks.

Many were cased separately and this one was in a pressed tin case, Fig. 11. The clue to the case was on the remnants of a label on the bottom of the tin: 'uit', for biscuit. The movement was in reasonably good condition but with a patch of damaged bass-end cylinder pins flattened or missing; even so, it played well for its age.

In fact, these Frantisek Rzebitschek movements are incorrectly named because the legend stamped on the brass bedplate was: WILLENBACHER & RZE-BITSCHEK IN PRAG, Fig 12. The latter was a partner of the former, Willenbacher, who started the firm Willenbacher & Willenbacher before 1838.



Fig 10: Paul Bellamy with Olbrich box

As for the highly embossed 'tin' case, the general consensus was that it was so old that the movement should not be re-cased because it was part of its provenance. The bedplate is stamped with numbers parallel to and facing the left-hand side; No. 957 and underneath the number 11633. No 957 is the gamme number, called musik, and the longer one is the serial number, called zahl. According to Bulleid's dating chart it dates to about 1842.



Fig 11: Viennese movement in pressed tin case

Most of the coating, with scenes of two mediaeval horse-mounted combatants carrying lances and charging each other with intent to do much harm, had been rubbed away. The steel was also quite heavily pitted. One possible restoration solution could be to get the case cleaned, copper flashed and re-plated. It would probably look stunning. The lining was red silk, mounted on a cardboard frame, possibly not too far gone to be salvaged. Judgment has to made once again, whether to re-mount the silk on a more substantial cardboard base or to leave alone - a 'tough call' for any proud owner.



Fig 12: The movement by Willenbacher & Rzebitschek in Prag

Fig. 13 is a toy manivelle (i.e. hand cranked) street piano. It is shown alongside a similar one for comparison. Although both are the same size with the same movement, there are distinct but unexplained differences, both with the piano case and the cart. Perhaps the one with the steel band for wheels and flat face to the case has been restored. Does it matter? Both have survived the nursery and are now genuine collector's pieces. The small Thorens disc movements are the Helvetia and Edelweiss types, both of which use the same discs made by Thorens.

And finally, a piece of American memorabilia in the form of a trade card advertising C. Blum, Jr, a barber, (son of J. Blum senior, no doubt) of Philadelphia, Fig 14. It features a street busker with his little capuchin monkey. The choice of monkey was apt because they are native to that part of the New World of Central and South America, even as far south as northern



Fig 13: Toy street pianos

Argentina. Because they were used by itinerant organ grinders, they were known as "organ grinder" monkeys. Why Capuchin? Because the colouring of their head hair makes them look like a member of the Order of Capuchin monks. So does the topping of a cappuccino coffee! Why did C. Blum Jr choose a monkey organ? Perhaps he was also a member of a barber shop singing group? Whatever, he certainly knew how to draw attention to his trade.



Fig 14: American trade card.

AMBC Meeting

Saturday 1st June at The Old School

Ted Brown began with a demonstration of his first musical box. The meeting continued with Chris Fynes playing two of his small musical boxes. The first, a tortoiseshell snuffbox which came in its original red leather case, was made by M. Bordier (the movement is described in Issue 16). It played two tunes on an 83-tooth single piece comb, very similar to movements made by Henri Capt. Although it came in its original leather case the box had been in a sorry state with bits of tortoiseshell missing and an unsightly repair to the lid. Chris had replaced the missing pieces and applied some cunning paintwork to resemble tortoiseshell on the ugly lid repair. Also, the scruffy leather case had been revived with the application or two different shades of red polish to achieve the right colour. The highlight was his sur-plateau silver snuffbox, with 39 teeth playing the Sailor's Hornpipe. The entire movement comprising spring motor, disc (called the sur plateau - meaning pinned on a disc), stack of teeth and gearing were compactly accommodated between two plates barely 1/4 inches apart (see article in Issue 13).

Ted then demonstrated his early sectional-comb tortoiseshell snuffbox, with a finely painted scene framed in an oval cartouche on its lid. It played two tunes, one being a Ranz des Vaches. This same tune, with more embellishments, occurred on the Bordier box. It is an example of a melody traditionally played on an Alpenhorn to call in the cows.



Fig 1: Chris Fynes' musical snuff boxes and Ted Brown's example (foreground).

Every district has its own version, some of which have been introduced into compositions by Rossini, Beethoven and others. They can be found on many musical boxes.

These snuffbox movements, when played on a sound board, performed as well as most standard musical boxes with a playing time just short of one minute per tune. The musical arrangements were extraordinarily complex with fast ornamentation.

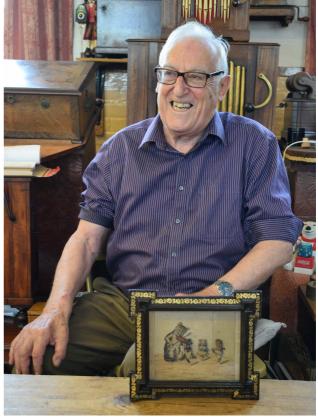


Fig 3: Paul Bellamy's restored musical picture. See April meeting report on page

Paul Bellamy brought along his recently acquired and now restored child's automaton musical picture. Its restoration will feature in a future article. It had been 'musically challenged', having lost ten of its treble teeth on its 39-toothed comb. Paul's dentistry now allowed it to play all the notes and the fully expressed tune of unknown title would have been a delight to any child as well as the adults present over 100 years later! The dental work included the use of modern adhesive instead of traditional soldering, so

as to minimize the possible risk of heat damage to such a small movement. All agreed that the restoration was sympathetic and the restored (actually



The movement of the automaton picture prior to restoration.

replaced) gold leaf enhanced its appearance.

Ted Brown then played and compared music on a selection of different organettes, some of which featured in the afternoon, when guests repaired to the garden for the picnic lunch and soaked up the sunshine.

The highlight was Paul Baker's piano, which had personal sentiment to him concerning Canon Wintle, who converted it from a coin-operated spring motoroperated instrument to a hand-cranked street instrument. The barrel was pinned by Wintle with tunes of the '50s (1950s, not 1850s), a remarkable late example of street use. Paul also displayed a montage of various street organs and pianos plus the text history.



Fig 6: Paul playing his street piano

Finally, members had the first opportunity to see a copy of the new AMBC book, called the Collector's and Restorer's Handbook, dedicated to the late Graham Webb. See the advertisement on the inside cover of this Issue.



Fig 5: Paul Baker's fine barrel piano.



'Miss Pianola', from a set of magic lantern slides of the Broadwood piano company. Circa 1920.



SOME HINTS ON REPAIRING A MANIVELLE

By Ted Brown

I recently repaired a manivelle for a lady from one of the visiting groups and thought I should pass on a few of the tips learned when you repair them.

The case screws, ¹/₂ inch long and size no. 2s, were all missing (I have plenty if anyone needs some). As usual, a previous attempt had caused damage, splitting the case when undoing the bottom and bending the playing handle. The handle was seized but with a decent pair of narrow-nosed pliers holding the winding shaft, a quick jerk anti-clockwise loosened the handle from the shaft, as it usually does. As yet I have never found a handle riveted on but occasionally one has been glued with a modern glue.

Once the handle has been wound off everything is straightforward. Hopefully the comb is complete; broken combs are only repaired as a labour of love. The teeth are very fine and often get broken off in large sections. This is nearly always due to the winder being wound anti-clockwise, which depresses the teeth instead of lifting them, either breaking them off or bending them downwards.

If the manivelle has survived this damage, take off the plate that holds the winding shaft. Usually, the top end of the endless is a shaft with a small diagonal pin protruding either side. The shaft slides up into the winding handle, which is a pipe having a double recess that drives the shaft but slides off the pins when wound clockwise but disengages when the handle is wound backwards (anti-clockwise). This action must be very free.

The one I was repairing was completely seized up and could have been a disaster waiting to happen if wound backwards. They normally seize up when old grease hardens or they become bound with fluff but ten minutes in an ultrasonic cleaner or good soapy water soon releases them. Having released this one, I cleaned the comb with fine emery paper (800 grit) and reset the cylinder to line up with the comb.

These manivelles have an adjusting screw at each end of the cylinder to line up the pins on the cylinder. They have a set of pin marks at the beginning of the tune. The screws do not have slots and have to be turned by pliers. The screw on the left has an anti-clockwise thread; the one on the

Two Scottish Airs manivelles

right has a conventional clockwise thread.

It may be necessary to replace some of the feather dampers. Look in one of our books for advice or telephone one of the committee members. Before putting the movement back in its case, play it on a sounding board, the bottom of a drawer will do, to make sure it sounds good. Anything that moves can have a drop of clock oil, but just a tiny drop will last another fifty years.

I have not gone into technical problems but usually the only problem is having to re-bush the endless top mounting block.

A PAIR OF NON-IDENTICAL TWINS

The repairs described above were to a rectangular wooden cased manivelle. It was inscribed by hand "A present to Daisey from Auntie Croxton Xmas 77". The programme of music was numbered 972 and the three tunes were;

"Cock of the North"

"Bonnie Dundee"

"What's a' the Steer Kimmer"

Coincidentally I have a round metal manivelle that plays exactly the same tunes. It also happened that the title of the third tune was very unclear on both boxes. A bit of guesswork and some internet research solved the mystery. It is a Scottish ballad that translates loosely as "What's all the excitement wench". There are two versions; one set of words, published in Boston in 1840, is about the "Old Pretender" and the Jacobite rising of 1715, aiming to put him on the throne as James III of England and James VII of Scotland.

What's a' the steer, kimmer, what's a' tha steer? Jamie he is landed and soon he will be here. Gae lace your boddice blue, lassie, lace your boddice blue

Put on your Sunday claes and trim your cap anew.

For I'm right glad o'heart, kimmer, right glad o'heart,

I ha'e a bonnie breast-knot and for his sake I'll wear't

Gin' Jamie has come hame, I ha'e nae cause tae fear

Bid the neebors a'come doun and welcome Jamie here.

The other version, published in 1823, concerns the landing of his son, Bonnie Prince Charlie, the

"Young Pretender" in 1745:

What's a' the steer, kimmer, what's a' tha steer? Charlie he is landed and haith, he will be here. The win' was at his back, carle, the win' was at his back

I care na sin he's came, carle, we were na worth a plack.

I'm right glad to hear't, kimmer, I'm right glad to hear't,

I ha'e a gude braid claymore, and for his sake I'll wear't:

Sin' Charlie he is landed, we ha'e nae mair to fear;

Sin' Charlie he is come, kimmer, we'll ha'e a jub'lee year.

A 3-Dimensional Musical Automaton Picture

by Ted Brown

Some years go a good friend of mine, Lyn Wright, died and his collection was sold. One item was a diorama picture with moving people, a windmill and a watermill. I remember having a conversation with Lyn, who was a well-established maker and restorer of automata, about this particular picture. He said that it was in a sorry state when he got it, but that luckily as it was worked only by a series of pulleys and twine it was relatively easy to restore. There was no problem with timing between cogs and wheels, the only problem was working out which loop of twine went where and which tensioning pulley worked on which loop. As usual you need to sit down and think, preferably with a coffee or whisky, to work out the alternatives. Lyn sorted this out and, other than having to put a few extra figures on the moving bridge, was able to reassemble the picture as near to the original as possible.

Once having seen the inside of this picture you can see how simple it would be to make one of your own. In these days of computers and printers it is simple to get a picture enlarged to an appropriate size and once you have looked at a few auction catalogues or museum pictures you can see that many have a church tower with clock, a bridge with people crossing and a water mill/windmill and/or a blacksmith in a forge. With a little imagination and modern technology, you can construct something similar. Do start with an easy one to interest the children, and then move up to something a little more advanced. If you have success please send us an article and pictures to show our members.

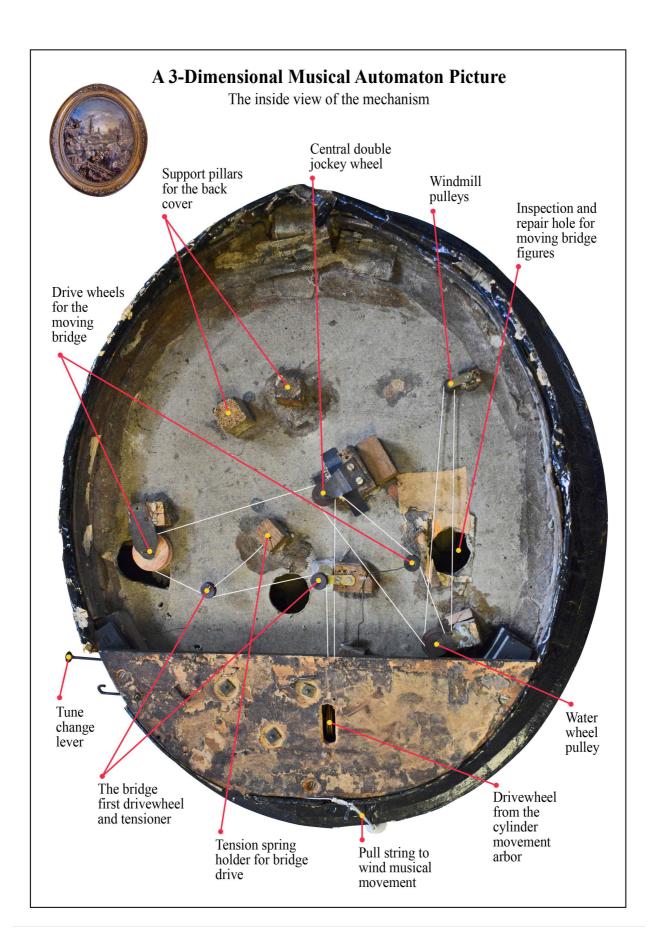
See the front cover for the automaton picture and Page 12 for a view of the interior.

Fun and games at the Waldkirch Organ Festival. The next one is on

19th- 21st June 2020

See Page 2 for details.





Some simple tips on restoring a Cylinder Musical Box by Christopher Fynes

It is important to preserve our heritage for the future, and if we can save any musical box from the scrapheap all well and good. I am by no means a professional restorer and as we live in a small cottage, I have no space for large tools and so have to do almost everything by hand. Nevertheless, I do attempt occasional restorations and thought it a good idea to share my experiences with anyone who feels apprehensive about tackling this task.

Some time ago, I bought a cheap musical box movement on eBay to restore. Fortunately, I managed to take some before and after photos showing its transition back to life. Before purchasing it, I tried to assess the amount of damage. A careful look at any photos and a chat with the vendor is often, I find, a helpful guide. It was clear, there was quite a lot wrong with it, as can be seen in the accompanying pictures, but the kind of problems that I thought I could handle on my own with a little bit of patience.

What immediately stood out was the heavy rust on the comb; however, this was red rust which could be scraped off. The amount of red rust had probably not affected the tuning very much and if care was taken removing it, the tuning would remain unchanged. In all other respects, the comb was complete with no replacement teeth or tips. The pins on the cylinder also looked in reasonably good condition with a few that were bent and only one or two broken off. Without major facilities at hand, the comb and cylinder are definitely the two most important parts to have in good order and it was surprising that this happened to be the case in this instance, as mechanically the rest of the movement was in very poor shape and could not possibly run. The 'Before Restoration' pictures on page 14 clearly list the parts that needed attention.

Before stripping down the movement, I first made holes in an old cardboard box to store the screws in. I laid them out in the same plan as the bedplate enabling me to return them back to their original holes when reassembling.

I dealt with the rust on the comb first. I loosened some of it with the temporary application of white vinegar which I subsequently cleaned off with paraffin. Then using a scalpel with a 10a blade, I carefully scraped one tooth at a time removing the surface rust only while avoiding to attack any black imbedded rust too heavily. Obviously, I did not want to remove any of the underlying steel as this could affect the tuning. I

periodically checked the sound of the tooth with its neighbours before and after to make sure nothing had changed. Having cleaned the top of the comb, I now gently scraped the underside, also remembering to separate the leads with an old feeler gauge.

The next major hurdle was the spring barrel. It had two missing teeth and was missing its Geneva stop. By some incredible luck I happened to have an identical sized barrel off a scrap movement that had a wrecked comb. The shape of the cog teeth seemed to be identical and meshed happily with the cylinder gear; it also came complete with its own Geneva stop. When faced with a similar problem with such a barrel on another occasion, I was able to commission a clockmaker to cut and sweat on a new cog for me, an alternative way of dealing with the problem but unnecessary on this occasion. However, the inside bracket also needed to be replaced as the bearing had split. I had no choice but to fashion a new bracket out of a thick piece of brass. I used the old one as a template and carefully made sure it was shaped correctly to avoid trapping the base tooth as the old one did. I pinned and tapped the bottom of the new bracket through the old holes in the bedplate and used new screws to fit. I was able to use the old bracket on the other side.

The governor now needed some serious attention. I took it apart and cleaned it with clock cleaning fluid while at the same time remembering to wear a face mask as it contained ammonia. The fumes can be deadly. Before I could put it back together, the gear that drives the endless screw was missing. After measuring the pitch of the worm (the distance between the spiral threads), I was able to acquire a new gear from Nancy Fratti in the USA who at the same time supplied me with a replacement endstone. You may have to rebush the governor plates to accommodate a new pinion size, but in my case, I was able to remove the gear from its shaft and press fit it on to the old shaft of the original. After polishing the worm, it all meshed together happily and I did not even need a new worm to make it run smoothly. Finally, the Y shaped stop/start control was missing. To guide me, I found it helpful to make an oversized thick cardboard template first which I gradually cut down to size to make a good fit, before replicating a similar shape out of brass. I used a jeweller's saw to manufacture it, before filing, rubbing it down and polishing it. I then mounted a steel drop-pin into the appropriate end.

All the rest of the steel parts on the movement had a good soaking in paraffin and then de-rusted with wetand-dry before they were also polished. All screw heads were similarly finished by turning in a drill head.

When straightening pins on the cylinder I found it best to allow the cylinder to run freely on the bedplate so it could be adjusted to the best position quickly. I checked the angle of the pins before starting as some cylinders have raked pins. On mine they stood 90 degrees upright. I personally prefer to use a small jeweller's flat nosed pliers to straighten pins, first adjusting them horizontally, then vertically. I have always found this more accurate and stable than a hypodermic needle which may have some slack within it. I corrected about one inch at a time around the cylinder.

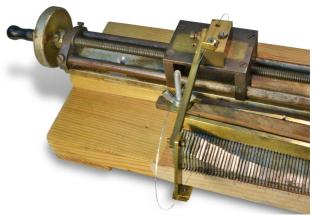
Cleaning the cylinder is a messy business and is best done in the garden on a sunny day, wearing an old apron. I mounted the cylinder on a wooden dowel supported by wooden brackets on a chipboard base sitting on an old table. With a soft brush I liberally applied metal polish, first brushing one way and then the other, taking care not to knock any pins, until it began to dry. After several applications I continued brushing until the cylinder was thoroughly clean, finishing it off with yet a further brushing of silver powder added to methylated spirits. You might need several brushes which can be washed afterwards. The bedplate too was washed in hot water and detergent before given a final polish. The holes then cleaned out with a variety of cocktail, barbecue sticks and cotton buds.

The stop/start and instant stop levers were missing which I remade from strips of brass bought on eBay. I mounted a stiff wire in the end of one to make up the instant stop. I also bought some M4 long shoulder screws, which I tapped into the bedplate and cut to length to make four feet to stand on.

Before assembling the movement, I noticed there were a couple of slightly bent teeth on both of the cylinder gears, this I put right with a judicious bit of filing until they meshed perfectly smoothly.

Amongst my collection of keys, I was lucky enough to find a brass heart-shaped one to fit, which was handy.

I now had the daunting job of replacing the dampers. I began by securing the comb face-downwards on my homemade damper jig shown in Picture 1, marking the position of the teeth on a piece of masking tape underneath and emphasizing every tenth mark for easy reference. I mounted a similar marked tape sticky-side-



Picture 1: Home made damper jig

up onto another solid surface. This enabled me to pull out the old damper pins, one by one and attach them to the sticky tape recording their exact position. Some pins needed to be drilled out and replaced with new ones made from clock pins. The appropriate thickness of damper wire was then selected and inserted into the old hole and held in place by the articulated grip arm above, allowing me two free hands to tap in the appropriate damper pin. The damper wire was then cut and shaped with special tweezers that I had previously made for the purpose.

Mechanically, the movement was now complete and just needed a few drops of clock oil applied to its vulnerable parts.

To finish the whole thing off, I cut down an old musical box case to size. I replaced its missing lid with a bit of cherry wood that I acquired from a local timber yard. I tapped slightly larger holes into the bedplate for new screws and washers to hold the movement and replaced the rest of the brass work.

I was now rewarded with a lovely early musical box that played four delightful dance tunes of the period. The 'After Restoration' pictures on page 15 show the finished result. Note how some pins are drilled into the endplate of the cylinder.

Before attempting anything like this, it is a good idea to arm yourself with a much more comprehensive book on the subject as my words are only a brief synopsis which may give you some simple tips. To this end the AMBC has now published a new book entitled **'The Cylinder Musical Box – A Collector's and Restorer's Handbook'**, written by Paul Bellamy with full details on the subject, which we hope you will find very useful. To order copies please see the advertisement on the inside front cover of this magazine.

The enjoyment of Kinetic sculptures and automata

by David Soulsby

The Tower of Babel, the Big Organ Grinder standing to the right of the tower

My wife and I recently paid a visit to the Sharmanka kinetic theatre in Glasgow. The description of the show in the advert, was intriguing; at least to one of us!

"Hundreds of carved figures and pieces of old <u>scrap</u> perform an incredible choreography to haunting music and synchronised light, telling the funny and tragic stories of the human spirit as it struggles against the relentless circles of life and death".

Not everyone's cup of tea, I grant you, but I was keen to experience the performance and also get an insight into the difference between kinetic sculptures and automata.

Sharmanka is the Russian word for barrel organ, the representation of mechanical music, synonymous with *Fairs* and having a good time. Certainly there are elements of this in the show but also there are

darker more threatening images as well. The creator Eduard Bersudsky was born in St.Petersburg in 1939; and was witness to some of the insidious as well as the uplifting aspects of the Soviet Union. He is now retired but his amazing constructions are regularly exhibited in Glasgow and on tour in the UK.

We were shown into a darkened room by an unassuming Scotsman in a black T-shirt and jeans and seated in the front on one of several rows of benches, about half an hour before the show was due to start. We wondered if we were going to be the only ones there, but after about 15 minutes a number of others shuffled in and there were about 30 of us there when the show got underway.

In front of us there were a number of weird and wonderful machines, some illuminated and others in darkness. These are from Bersudsky's early work constructed in Russia. Opera glasses were provided so you could view close-ups of the proceedings.

At the centre of the display was a construction, entitled the Tower of Babel which was the first to spring into life accompanied by rousing music. The amount of movement is staggering, wheels turning, bells ringing, figures tugging on pulleys, others swinging on ropes or suspended by chains. Shadows of the moving figures are cast on the wall with ever changing colours from synchronised lighting. There are some characters from Russian history included, Lenin making a speech and Stalin swinging an axe. As the lights go out on some figures, they stop moving and others become alive as the light falls on them. A single mannequin turns a wheel reeling up a figure suspended by its ankles releasing it over and over; another in a top hat endlessly launches a fishing rod with an industrial size hook at the end. There are around 30 figures taking part in this tableau alone.

To the right of the tower is a statue of the *Big Organ Grinder* wearing a jester's belled hat, he has a bird on



The Big Organ Grinder

his head also holding a bell. A white suited Pierrot tugs on a cymbal. The bird sounds the bell and a dour monkey to the side joins in, as the organ grinder winds the handle. In front of him is the *Small Organ*



The Circle of Clowns

Grinder, brought into sharp relief by the light, cranks the handle of his barrel organ in time, with a somewhat more contented monkey moving his head in time. A *Circle of clowns* spins above.

After all machines have been illuminated and played individually the whole moving spectacle reaches a climax together. All movement, light and sound is computer controlled so the synchronisation is spot on.

The show continued with everyone promenading around the room to watch the more recently built machines as they lit up and began their performance. Annoyingly these were not always adjacent to one another and led to a lot of people scrambling along in the dark to get a closer view.

Most of the contraptions were constructed from scrap such as bicycle wheels, old sewing machines and type writer keys. Each one played out a story with figures, human and animal moving to light and musical accompaniment. Motion gradually spreads from one part to another as belts flap and gears clunk. Echoes from Bersudsky's life in Russia are mimicked by the nature and interaction of the carved models, hidden or in plain sight. Some of these worked well and others I thought were rather annoying. A couple of my favourites were:-

Titanic

The contraption stood in compete darkness until a light shone on a model of a seated man, in a top hat, tilting a steering wheel from side to side. More lights snapped on, a woman peering through a telescope began to spin round. A large three bladed fan started up and the "wings" of more scrap began to rise and fall, a barrel rotated continuously below it. A naked man began to swing weights and a naked woman



Titanic

rang a bell inscribed - Titanic 1912. The pedals and wheels once belonging to a bicycle began to turn.

The whole spectacle accompanied by music, is enigmatic. I didn't understand it but it doesn't pay to be too literal with Bersudsky's work.

Time of rats

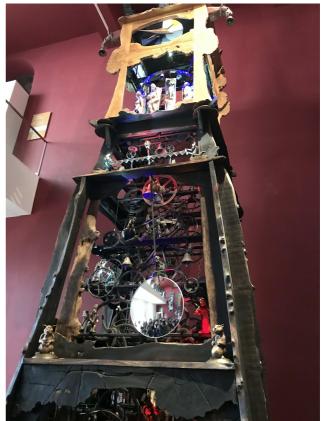
A rat, in a top hat cranks a lever turning a movie projector spool. Green light shines everywhere and another rat, wearing spectacles, shakes bells held in each *hand*. Two other rats furiously turn handles and the whole machine begins to move in a circle. At the very top a suspended rat starts a gramophone turning and another starts hitting the keys of a typewriter. The colony of rats is mounted on a mole, representing Russia, blindly plodding forward but under their control.

It is impossible to convey in detail the nature of the automata moving in the machines on display. Rolling heads, objects tumbling through moving cages, the individual figures in the machine interacting and then suddenly jumping apart. All the time, the co-ordination of the music and light, casting ever changing shadows on the wall. We were only allowed to take photographs before and after the show so these elements cannot be seen. As is the case with all articles on automata the essential element of movement is not shown, but hopefully the photographs convey some of the unique nature of the theatre.

We continued our appreciation of Bursudsky's automata by travelling to Edinburgh to view the Millennium clock in the National Museum of Scotland. It is 33 feet high in the shape of a medieval cathedral, and depicts the passage of time as well as highlighting



Time of Rats



The Millennium Clock

some of the best and worst aspects of the 20th century. Although the wood is new the metal sections came from the Scottish scrap yards. At the centre is a pendulum with a large convex mirror attached, in which you can see the crowd reflected, waiting in eager anticipation for the chiming of the clock.

The tower is divided into four sections; at the bottom is the *Crypt* full of wheels and chains, where an Egyptian monkey strains to turn the largest wheel setting the others in train. Above this is the *Nave* where all manner of figures, amongst them Hitler, Lenin, Einstein, Chaplin, move around the pendulum. The next section is the *Belfry* which houses the *Requiem*, Clock face and panels of coloured glass. The *Requiem* is a circle of 12 carved figures representing the horror, pain and suffering of victims of the past centuries. The top most section is the *Spire* with a cross formed by a female figure carrying a dead man symbolising pity.

At last, nearly three minutes late, with the beginning of Bach's powerful organ music, the various sections became illuminated in turn. Chaplin bangs his cane, Einstein plays the violin, and Lenin swings from side to side with distorted statues of Hitler and Stalin looking on. A number of other moving models join



in, an organ grinder, a dancer, cyclist, all with the lights switching in time to the music and movement. Everywhere wheels turn, chains rise and fall and bells are rung. The tragic figures in the *Requiem* begin to slowly rotate revealing the disturbing nature of the limestone carvings.

Bersudsky said that it took him eight weeks to carve plus all his previous time in Russia.

The whole experience of viewing Bersudsky's machines was unique. There is a fine line between automata and pure kinetic sculptures. The moving





The top section of the Millennium Clock. The figure at the right appears to be carrying a magic lantern.

elements and figures displayed here exhibit characteristics, I think, that are more akin to the former, others will perhaps disagree.

However the trip was well worth it and I thoroughly recommend it to those interested in automata. It was certainly an enjoyable and thought provoking encounter.

Heinrich Zumsteg and his Long Playing Musical Box

by David Evans

Over the years there have been several attempts to make a musical box run for longer. Two mainspring barrels in series is perhaps the most common – where the barrels are arranged side by side, the centre arbor passing through both and floating, just hooked to the inner ends of both mainsprings. The mechanism is driven as usual by a toothed wheel on the right hand barrel, the winding by a ratchet wheel attached to the outside of the left hand barrel. This arrangement approximately doubles the playing time of the box on a single full winding.

Another way is to increase the diameter of the music cylinder. Often used on overture boxes and two-per-turn ones, this also can double the playing time, if the circumference is doubled and the linear surface speed remains constant.

Another way would be to increase the diameter of the mainspring barrel, but this has its limitations, not least the need for extra long mainsprings with the attendant risk of early failure.

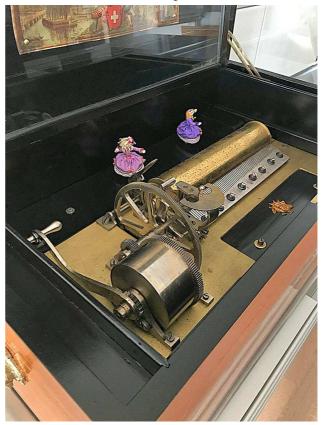
In 1886 Heinrich Zumsteg of Kulm, Aargau, Switzerland, applied for an American patent, the application filed on July 24th. On December 28th 1886 the application was granted and Letters Patent No. 355,244 was granted to him (Fig 4). He assigned it to Adolf Karrer, musical box manufacturer, also of Kulm, for whom he presumably worked. What he claimed as his invention was:

"The combination of a single spring inclosed in a box and provided with the spur-wheel e (see Fig. 5), an intermediate shaft provided with the spur-wheel I, and the pinion g, gearing into wheel e, a tune-cylinder provided with the spur wheel m, and the long pinion k, gearing into wheels m and I, thereby increasing the length of time for which the cylinder will be turned by the spring".

An example of just such a device turned up at a recent auction sale by The Swiss Auction Company in Ermatingen. The box was catalogued as by Paillard, but in private correspondence, Retonio Breitenmoser of The Swiss Auction Company told me the maker was actually Karrer. We are grateful to Herr Breitenmoser for his permission to use pictures from the sale catalogue. Fig 2 shows the intermediate shaft as described in the patent and figures 1 and 3 other views of the fine quality box. We can safely date it to 1887 or very close to that date. Unfortunately the serial number was unavailable.

Right: Fig 1: (top) The box by Karrer Fig 2: (Middle) Zumsteg's great wheel Fig 3: (Bottom) The tune sheet







UNITED STATES PATENT OFFICE.

HEINRICH ZUMSTEG, OF KULM, AARGAU, SWITZERLAND, ASSIGNOR TO ADOLF KARRER, OF SAME PLACE.

MUSIC-BOX.

OPECIFICATION forming part of Letters Patent No. 355,244, dated December 28, 1886.

Application filed July 24, 1886. Serial No. 208,055. (No model.)

To all whom it may concern: Be it known that I, HEINRICH ZUMSTEG, a citizen of Switzerland, residing at Kulm, in the canton of Aargau, Switzerland, have in-vented certain new and useful Improvements in the Mechanism of Musical Boxes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in to the art to which it appertains to make and

use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

The object of my invention is to obtain a four to five times longer duration of playing of musical boxes than has hitherto been attained. I obtain this effect in the following way, as illustrated by the accompanying draw-

 way, as indicated by the accompanying draw
ings, in which—
Figure 1 represents the top view of the whole
mechanism; Figs. 2, 3, and 4, details.
Prior to my invention music-boxes have
been provided with a spring-box connected to 25 the tune-cylinder by a single pair of gear-wheels, and when it was desired to increase the length of time for which the music would play without winding the spring np again, two or more spring-boxes were applied to the 30 tune-cylinder.

In carrying out my present invention I make use of a single spring-box of about the ordi-nary size, and I couple this spring-box to the tune-barrel by means of an intermediate series 35 or train of toothed gearing, as hereinafter more fully described. This train of gearing makes the spring-box turn very slowly in pro-portion to the tune-barrel. The speed of the tune-barrel is regulated by an ordinary fly-gov-10 ernor, so that while the tune barrel turns at the usual speed, the spring-box turns very slowly, and its action upon the barrel is continued over a much longer period. This device is applicable to all music-boxes at present con-45 structed, and does not oblige any changes be-

ing made in the ordinary playing mechanism.

The casing a contains the spiral spring which drives the machinery. It is wound up by means of the key b, to which the pawl c is attached, which catches into the ratchet-wheel 50 d. The driving cog-wheel e, fast on shaft f, gears into the cog wheel g on shaft h, which carries the main cog-wheel *i*. This gears into the long pinion K, driving cog wheel *m*, which turns the cylinder n. 55

o is the metal clavichord with its sounding-

The fly p is provided with a fusce driven by the fusee-wheel q on pinion r, which is driven by cog-wheel m through pinion s and cog- 60 wheel t.

The bracket A is provided with a stopping arrangement composed of the levers B and C, acting on the pin D, which runs in the groove E, Fig. 4, of the wheel m, and catches into the 65 notch E', stopping the mechanism at the end of a piece of music.

of a piece of music. The bracket F is provided with tune chang-ing mechanism composed of the lever G and sliding bolt H, which acts upon the ratchet-wheel J, on which sits a cam, L, giving a small sliding motion to the cylinder *u* through pin M for the change of music-pieces. The spring N reacts upon the cam L, and brings the cyl-inder back to its first position after each revo-75 Intion of the cam or ratchet wheel J. lution of the cam or ratchet wheel J.

What I claim as my invention is— The combination of a single spring inclosed in a box and provided with the spur-wheel c, an intermediate shaft provided with the spur- 80 wheel i, and the pinion g, gearing into wheel e, a tune-cylinder provided with the spur-wheel m, and the long pinion k, gearing into wheels m and i, thereby increasing the length of time for which the cylinder will be turned by the 85spring.

In testimony whereof I affix my signature in presence of two witnesses

HEINRICH ZUMSTEG. Witnesses:

W. BARRAS. JULIUS A. BOURRY.

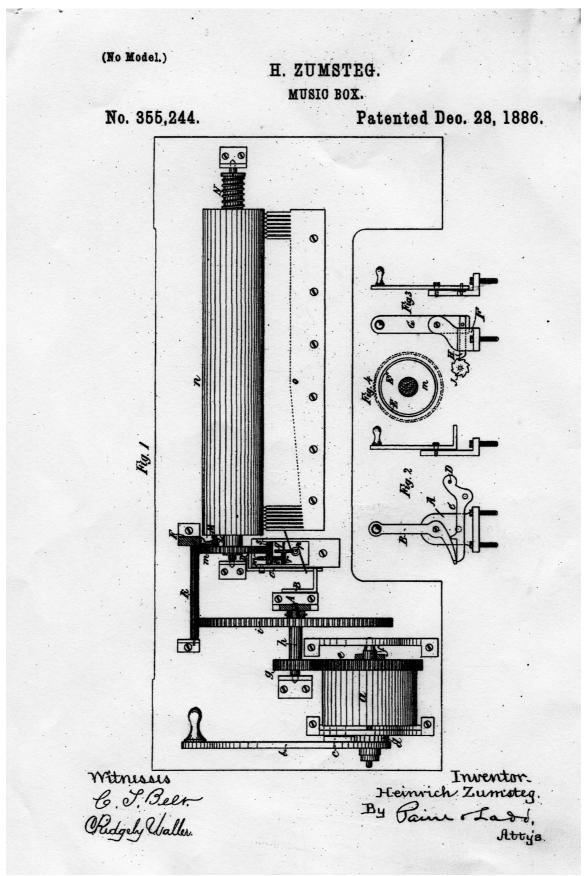


Fig 5: The patent drawing

A BIRTHDAY TREAT

by Juliet Fynes



The Rudesheimer Schloss Hotel

At fairly short notice Paul Bellamy decided to drive to Rüdesheim am Rhein for the spring meeting of the German Society and asked if we would like to accompany him. We lost no time in accepting, for several reasons. The brief visit from a Rhine cruise four years ago (described in Issue 3) left us wanting to spend more time in this pretty town and to revisit Siegfried's Mechanical Music Cabinet. There was also the lure of renewing acquaintance with friends made on our visit to Espelkamp last year. By no means the least of the attractions was the twice yearly "mart". My birthday was due to fall just after the weekend and Chris had been asking what I would like for a present. I have so much "stuff" I couldn't think of anything, but this looked like a good opportunity to combine a present hunt with a nice holiday.

Having arranged to meet Paul in Dover, we drove there the day before, taking the slow route in order to fulfil another ambition, a visit to the Penny Arcade in Rye. We were alerted to this by the fascinating article by David Soulsby (Issue 13). The large number of exhibits are crowded side by side in quite a small room but entrance is free and they are all in working order. It is well worth a visit and a chance to spend some of the redundant pennies most of us have lying around.

Getting to Rüdesheim involved a ferry to Calais the next morning, followed by a lengthy drive, best not dwelt on. Arrival was a great relief as we were greeted at the hotel with a complimentary glass of sparkling wine, just as a nearby carillon began to play. We were charmed to find that this was housed in a tower that is part of the 18th century Schloss, now the hotel. It plays several tunes on the hour, on fourteen bells, whilst a procession of figures symbolising the four major wine vintages of the 20th century parade around in and out of the tower.

Our room afforded us a view of Siegfried's from the bathroom window. The next morning it was off to the mart with high hopes of finding some little treasure I hadn't realised I wanted. This was our first, eagerly anticipated, visit so we didn't know what to expect. Being musical box collectors, initially it was with slight disappointment that we discovered most stallholders were selling gramophones, phonographs and related items; spare parts, needle boxes and records galore. There were some disc boxes but very few cylinder musical boxes. Nevertheless, I quickly spotted my heart's desire, a small Selcol Kid-e-Phone, which I had come across when researching Selcol for, yes, you've guessed it - a magazine article! Sadly, it was not to be as someone had already bought it*. I was also attracted to the numerous Bing and Nirona toy tinplate record players on offer but, spoilt for choice, was uncertain which to buy. In the meantime, I snapped up two albums of children's records as

there weren't many of these on offer and by now, I felt sure I would be getting some sort of toy gramophone.

As we continued looking around, we spotted a small odd-looking instrument, identifiable as some sort of gramophone by its turntable and pick-up. The seller demonstrated it playing one of my records and then showed how to dismantle it, a very tricky business, until all the components were ingeniously packed into its nickel-plated case. This circular container is about the size of a tin of travel sweets, but heavy as it is very well made. The winding key gives it the appearance of a giant cased pocket watch. This little "Mikiphone" impressed me with its cleverness and build quality and soon became my chosen birthday present.

Mission accomplished, we drove up to the imposing Benedictine Abbey of St Hildegard, set amongst vineyards and commanding a magnificent panoramic view of the town and the Rhine beyond. The 45 resident nuns work very hard, growing their own produce, making wine and craft work to sell in the shop and offering hospitality in their guest house. They also run a very nice cafe where we had lunch. The huge bowls of asparagus** soup with hunks of home-made bread left no room to sample the tempting array of desserts, displayed in equally generous portions.

In the evening we attended the BBQ at Siegfried's. It was "eat and drink all you like" for an inclusive entry fee. The cooking was taking place in the courtyard with trestles and benches set up in all the ground floor rooms of the museum. In each room some of the bigger (and noisier) instruments were being played competing with the cacophony of conversation. As the evening progressed, we were taken on a guided tour of the upper floors by the owner Jens Wendel (Siegfried's son). This was the same tour we had done from the cruise ship, but with many more people, and of course conducted in German. Unfortunately, all the jokes went right over our heads.

Suddenly there was an exodus across the courtyard to another wing so I tagged along and found myself in a small theatre where we were treated to an organ recital. I was mesmerised by the baffles fronting the organ works as they opened and closed seeming to dance to the music. After enjoying the performance



Ralph Smolne, Uwe Gernert and others at the BBQ

of a number of pieces another message went around getting people scurrying out to yet another part of the building, to a room where a cine projector was set up. I had no idea what was afoot but Ralf Smolne kindly explained that this was a rare opportunity to see a film made in 1930, but just newly discovered, of a splendid collection of clocks and mechanical music destroyed in the bombing of Berlin.

After all this food, drink, entertainment and the rekindling of friendships made in Espelkamp, we only had to stroll a few yards down to our hotel at the end of a very full and interesting day.

We returned to the mart the next morning to pick up some purchases of Paul's. Many vendors had already left and others were packing up but I was able to buy another album of children's records. After a schnitzel lunch we spent the rest of the day in a little desultory sightseeing and sitting in the sunshine enjoying a drink. The following day of course was spent mostly on the long road home, the price we had to pay for an otherwise most enjoyable weekend.

* soon after returning home I spotted a Kid-e-Phone for sale in an online auction. They are not very common but fate had evidently decreed I should have one. Gala, the record arm of Selcol, made children's records under the Nursery Records and Goldentone branding. However, these cannot be played on the Kid-e-Phone (I got that wrong in the Selcol article!). This little toy is hand-cranked and will only play its own records as, in addition to the central hole, there is a locating hole which has to correspond to a pin on the turntable. Luckily it came complete with the five original records. There is no music as they are all spoken. Some play "Your



Some fine phonographs etc at the mart. A certain Mr Fynes may be observed in the background...

favourite nursery rhymes", as promised on the box, but there is also a nursery rhyme quiz and some fables, evidently meant as morality tales for children, such as not to "cry wolf".

** White asparagus is grown in this region, only available for a few weeks, and highly prized by Germans as "the vegetable of kings".

Magic Lantern Slide after a print by Bernard Higham (right).

Bernard Higham was a British artist who was born in 1817. He is best known for his oil painting "To a Higher Plane", the illustration depicting a butterflywinged nude maiden caught in a web, watercolour on board, 29" x 29 1/4, overall with frame 33 1/4" x 24 1/2", signed lower left, dated 1917, signed and titled verso along with the artist's address in Surrey, encased in a gilded gesso frame with some damage to the corners. Condition - Painting has several minor pinpoint scuff marks. Higham was an illustrator for several renowned British authors in the late 19th and early 20th C. The artist died in 1919.



Magic Lantern Slide 'Pianola', created by Bernard Higham for the Aeolian Company, circa 1890.

Association of Musical Box Collectors

Aims and Objectives:

To promote the enjoyment of mechanical music in all its forms.

To provide opportunities of social interaction to members through meetings and outings of musical and other historical interest.

To establish formal links and working relationships with other national and international organisations in the field of mechanical music.

To encourage research and publication of articles and books on the subject.

To reach out to the public and foster a wider interest in mechanical music.

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or consequences arising from information so given.

AMBC sale items

The following items are for sale to AMBC members and those of its associated organisations. Surplus from sales will fund AMBC administration costs. The primary allocation will be towards research and further publication for the benefit of AMBC members and that of associated organisations.

Contact P. Bellamy or Ted Brown for P&P details: bellamypaul@btinternet.com or 01403823533.

A Passion for Barrel Pianos by Milly & Colin Williams. (See illustration)

This delightful and informative limited edition has over 60 illustrations and charts, most in colour. There are 12 sections dealing with aspects of casework, barrels, gearing, musical arrangement, marking and pinning.

The booklet is A4, ring-backed binding for easy use, with 40 pages of information between the covers.

UK price: $\pounds 10 + P\&P$ with comparable European and overseas costs to be negotiated.

Cylinder Musical Box Design & Repair by HAV Bulleid. $\pm 10 + P$ &P.

Cylinder Musical Box Technology by HAV Bulleid. £10 + P&P.

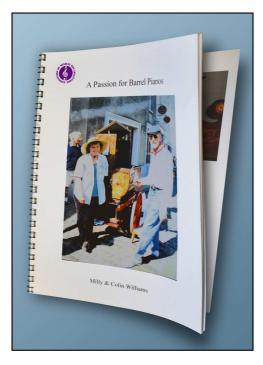
*Disc Musical Box Book by K. McElhone. £50 + P&P.

*The Nicole Factor in Mechanical Music by Paul Bellamy and contributing authors Cunliffe and Ison. \pounds 35 + P&P.

*Musical Box Tune Sheets (The Tune Sheet Book) and three supplements, by HAV Bulleid.

*The Organette Book by K. McElhone. £35 + P&P.

*Street musicians on Postcards by Paul Bellamy. £8 + P&P.



Members' Sales & Wants

Polyphon 104 (19 5/8") Pediment:

I have some good reproduction pediments that can be supplied 'as is' in the white wood or stained and polished

Polyphon 105 $(24\frac{1}{2})$ Motor Cover. Polished and glazed.

Symphonion 25¹/₄" Pediment, in excellent condition.

Restoration Project: Case, Motor, Bedplate and Combs to make a Symphonion $25 \ensuremath{\frac{1}{4}}$ "

8-Air Nicole Freres Music Box with a Double Spring Motor.

Wanted: A pair of combs for a Polyphon 104 (19 5/8") or a complete bedplate.

Contact: Steve Greatrex 07774 418 706

I have spares for Reuge, Thorens, and Guissez movements up to 31 notes. These include endlesses, combs, cylinders, stop/start levers, springs, spring barrels and even the knobs for the stop/start levers on mugs.

Call Ted Brown: on 01403 823533

A member who has relocated to Italy has some mechanical music box related items for sale.

For details call 00-39-523-891999 or mobile 00-39-3319234660

I am selling some of the items that appear in the little book "Collecting (affordable) Musical Novelties".

For complete list of items available contact Juliet Fynes on info@ambc.org.uk

If you have not yet bought a copy of the book it is £5 plus postage - see advertisement inside front cover.

In future editions of **Mechanical Music World** we shall be pleased to accept advertisements from members, both display (contact Ted Brown for details) and classified (contact the Editors). Let us know if we can help.