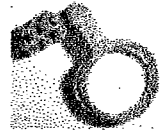




# LOCKS & KEYS



Issue 26

The Newsletter for lock collectors

November 2004

## The ancient art of the locksmith

When considering church locks it seems particularly appropriate that the earliest depiction of a lock should be found on a bas-relief in an Egyptian temple at Karnak dating from 2000BC. Although not immediately recognisable to modern eyes, and being

"Locks & Keys" needs more subscribers. If you know any other collectors, please ask them to subscribe to their own copies!

Because very little is known of the history and development of locks, and there is very little published material to guide those interested, most people do not recognise what exceptional artefacts are in their care.

"Locks & Keys" welcomes contributions, preferably with uncoloured illustrations on separate sheets. Unfortunately, colour photographs tend to be too dark to reproduce well. PC disks with files in MSWord7, MSWorks4.5, Write, Wordpad, or saved as .rtf can be used. Articles may also be emailed to the Editor — see below right.

somewhat cumbersome in operation, it functioned effectively. The principle, that of raising pins to create a shearline to allow movement, was rediscovered by Linus Yale Senior in 1848 and further developed and refined by his son Linus Junior between 1861 and 1865 to give the pin tumbler

(Continued on page 4)

## Untrendy latch

Gloddaeth Hall is built against the south-facing side of a low hill behind Llandudno. The oldest part of the existing building dates from the early sixteenth century. An earlier wooden house was replaced by a stone one, axis roughly east-west. It consists of a hall with a two-storey wing containing the solar, at the east end. A solar room, built above ground floor level as a private bedroom for the head of the household and his immediate family, was by then a normal feature of a great house. The solar wing at Gloddaeth is a good one, though separated from the hall only by a wooden partition.

What is unusual about Gloddaeth Hall, however, is that the house was built with a cellar *under* the solar wing. Usually, store-rooms and other outbuildings were single storey buildings built at ground level. This cellar, however, was almost completely below ground. The original entrance is in the south front of the building, below the main window of the private room at the end of the hall, below the solar.

The solar wing was refaced at the end of the seventeenth century, when the house was extended eastwards. There was some excavation in front of the solar wing, so that it was no longer necessary to go down steps to reach the cellar door. However, almost certainly the original cellar door was retained. It is of oak boards, ledged, and has a pattern of ventilation holes in it.

On the inside is a large iron lock. This lock appears to be original. What is so unusual

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## Editor

**M**any readers who have renewed their subscriptions and told me of their interests have mentioned safe locks, and also safe plates. So I shall do my best to include material on safe locks. I do hope, however, that those with knowledge and material on such locks will share it with me, as there are many of you who know much more about locks, especially better quality ones, than me.

Safes continue to sell, and, as in the past, the bottom end of the market sells better than the top end. As old artefacts go, safes have some unusual features. They are very long-lasting and scarcely wear out mechanically. They are also very heavy and difficult (and, often, expensive) to move, and so are often left behind by previous owners, be they householders or banks, when branches close.

Sometimes they appear in house clearance auctions, in the belief that they are still of use for security and fire protection. Others, however, are consigned to scrapyards, where, mostly, safes are no longer very welcome. Safes are scarcely worth the trouble of scrapping them now.

Although the hey-day of safe-breaking was the 1960's, it does still go on. Most safes no longer fit for use which are thrown out are simply dropped into landfill holes, or sometimes left in the countryside. Usually the attractive safeplate is easily removed. Locks, however, are most often lost. Old safes tend to be left locked and the keys lost, so if anyone wishes to have the lock, it is necessary to be able to open the safe! Some practical expertise is needed.

Old safes can be used as cupboards, and if you have a solid floor(!), can also serve as room dividers and storage combined, but it is understandable why so often, only the lock is preserved.



Padlocks have been made by the million, and they also provide scope for various collecting interests. It puzzles me where all the old padlocks go.



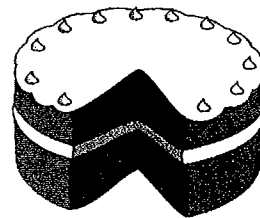
I had a new computer shortly before this issue, so it has been a lot to learn, and I have not yet been able to upgrade the Microsoft Publisher program I use.

Any help with producing the magazine is always welcome.

Finally, there is a Reader's Letter in this issue. Further discussion is welcome ...

## Feedback

**O**n my travels I visited Ravenstone church in Cumbria. The church, dedicated to St. Oswald, is a neat and commodious edifice, erected in 1744, on the site of the old fabric, which had two rows of seats below the communion table, 'where it is said the steward and jury of the manor sat formerly, in their court of judicature.' The malefactors were imprisoned in a hollow arched vault, the ruins whereof are still to be seen on the north side of the present church.



There is a painted board of the Ten Commandments, preserved from the previous building so its age is uncertain. It shows two old keys, although it was repainted at some time. Unfortunately, without steps and a light it could not be photographed. A companion board is now hidden behind the organ. I happened to find some other pictures of this church here, though:

<http://www.visitcumbria.com/pen/chp39.htm>

Such boards are not rare, though this is the only one I know showing keys. The Christian Church is not a museum, but many church buildings are a treasure store of art and culture. They contain many chests, old ironwork, and brasswork, together with sculptures and paintings, which could be of interest to us.



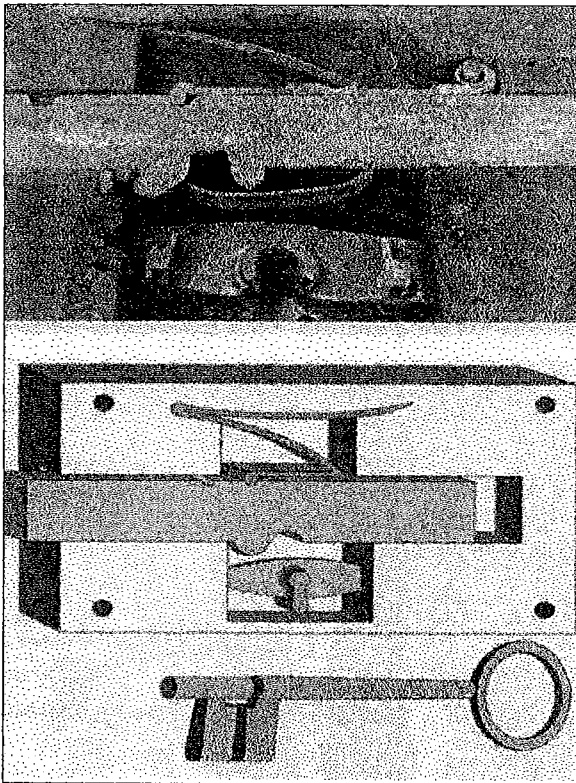
Many readers will know that prefabricated strongrooms have been exported, but exporting prefabricated safes was news to me until *Trevor Dowson* sent the Milner item on p.8, from 1923.

A variety of safe advertisements and catalogue sheets have been sent in. Many, though not all, have been from the more reputable end of the market. Some more will appear in future issues.

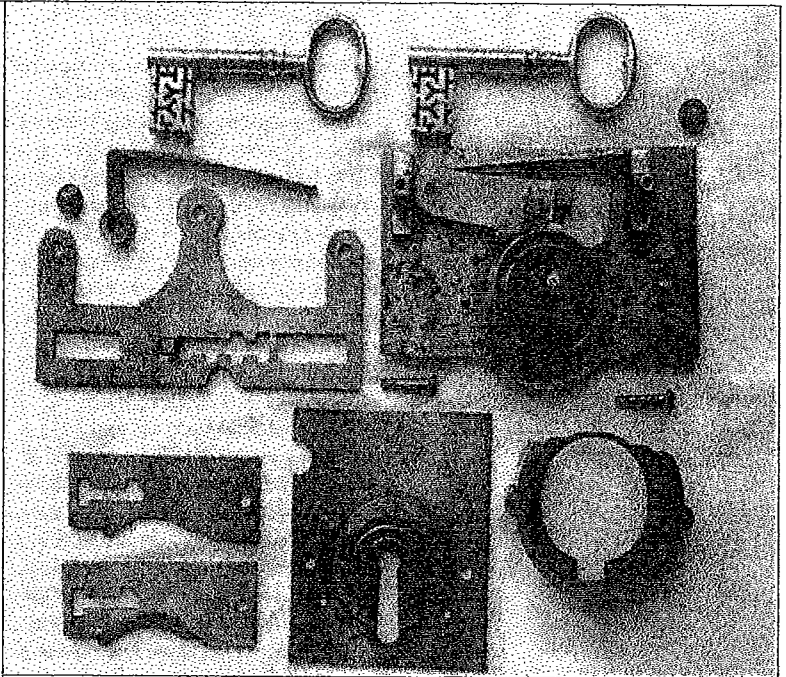
Page 9 shows part of a flyer from Withy Grove Stores Ltd, Safe Merchants and Office Furnishers, Manchester. This is about 1920, just after the Great War. The company, established in 1850, was keen to emphasise the product was all-British. These safes are twelve-bent, but still have a single-plate door with a lock pan screwed on, and using square bolts.

Many safe makers at this time, sadly, still used simple lever locks, often adapted from drawer locks. Some makers even cheated, not using as many levers as there were steps on the key!

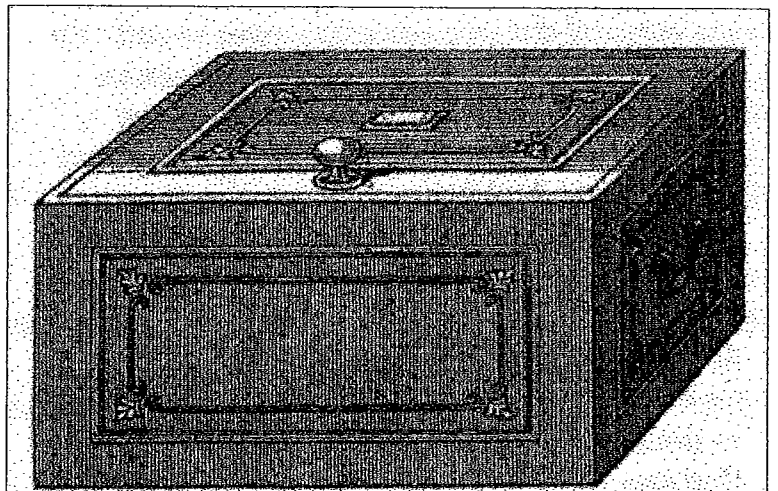
# The art of the locksmith - pictures



**Figure 1** The Banbury Lock  
 Above, a close up photograph of an 18th century Banbury lock mechanism (cap removed) from Theddlethorpe Church in Lincolnshire which is in the care of the Churches Conservation Trust. Note the decoration to the tumbler and spring. Below, a diagram of the Banbury lock, showing mechanism set into a wooden stock, and the distinctive key with a collar set within the width of the bit.



**Figure 2** Late 18th/early 19th century high security lock from a strongroom door, dismantled to show complex warding and Barrow's tumblers. The keys are both modern reproductions made to fit the lock, by 'The Keyhole'.



**Figure 3** A cast iron safe: this safe is typical of those produced in response to the George Rose Act of 1812

Not all the colour pictures originally with Valerie Olifent's article can be reproduced. Editor.

### Further Reading

Books on locks are few and far between, and those available are mostly written with the collector in mind. The most readily obtainable is the small Shire Publications book, *Keys, Their History and Collection* by Eric Monk, priced £5.99, which includes a bibliography. You might be able to borrow *Locks and Keys Throughout the Ages* by Vincent JM Eras, and *An*

*Encyclopaedia of Locks and Builders Hardware*, produced by Josiah Parkes and Sons Limited, from your local library. A short but highly readable history article from this book is also provided on the Internet by Chubb at [www.chubblocks.co.uk/historyoflocks.html](http://www.chubblocks.co.uk/historyoflocks.html). Otherwise it is usually a case of trawling through the second hand and antiquarian bookshops.

(Continued from page 1)

cylinder lock so widely used today. The Greeks are credited with the invention of the keyhole, the point of a sickle shaped implement being inserted through a small hole in the door, and, with a slight rotary motion, closing or withdrawing a large bolt. A Linear B tablet dating to 1300BC, excavated in Crete, was translated:

"Thus the Mayors and their wives and the Vice-Mayors and key-bearers and supervisors of figs and hoeing will contribute bronze for ships and the points of arrows and spears."

Keys are mentioned in the Old Testament, notably in Judges ch3 v25, written around 1170BC and Isaiah ch22 v22, from about 740BC. The earliest lock excavated came from the Palace of Sargon at Khorsabad in Iraq, dating from 700BC. By the time that Vesuvius erupted in 79AD, when a metal worker's shop was overwhelmed, locks had been developed and had assumed a form recognisable to modern eyes. Many have been excavated both from Pompeii and from the numerous Roman sites in Europe and the Middle East. As they were now made from metal a large number have survived. Padlocks with a spring tine mechanism were found at York when the Jorvik Viking settlement of 850AD was discovered.

A small but useful source of information from this period through to medieval times comes from the art of the period; carvings, wall paintings, illuminated manuscripts and stained glass. Depictions of everyday life sometimes show contemporary locks and keys and portrayals of St Peter can be a rich source. Even the Bayeux Tapestry shows Duke Conan of Brittany surrendering the keys of the town of Dinan to William on the point of his lance. Written records start to appear in the medieval period. The surviving accounts for the refurbishment of Portchester Castle in 1385 record the purchase of locks, and in 1394 London smiths were forbidden to make keys from an impression 'by reason of the mischiefs which have happened'. In 1411 Charles IV of Germany created the title of 'Master Locksmith' and by 1422 the London Guilds included the 'Lockyers'.

Some locks still in use do survive from this time, in historic college and university buildings as well as churches, but most are in private collections or museums. In the Victoria and Albert Museum you can see the 'Beddington Lock' which accompanied Henry VIII on his travels through the kingdom, being installed on his chamber door wherever he stayed to ensure his security and privacy. In the accounts for July 1532 is written *Item - paid to the smythe that carryeth the lock about wh the King in reward VIIIsVIc*. After the distress of the Civil War and the privations of the Commonwealth, the Restoration of the monarchy in the 17th century saw a flowering of architecture and the arts, which extended even to locks and keys. Locks were made of an intricacy and beauty rarely equalled, often with the mechanism as highly decorated and engraved

as the case.

Even until the mid 18th century and beyond, when elegance ruled, a degree of decoration of the mechanism sometimes persisted, enclosed within the plain, simple lockcase. The latter half of the 18th century saw the beginnings of the Industrial Revolution. In 1778 Robert Barron took out a patent to improve the security of locks, earning him the appellation 'Father of the English Lever System' (see Figure 5). Some of the locks with his 'modern' and distinctive mechanism and keys can still be found in churches. In 1784 Joseph Bramah, the inventive Yorkshireman, patented the Bramah lock, an entirely new concept in lock design which used a series of sliders in a circular pattern to provide exceptional security. Building upon these major advances the 19th century saw a proliferation of patents for 'new and improved' mechanisms and developments, not all of which have stood the test of time. This period also saw advances in the manufacture of key blanks. Previously all hand forged, the advent of water and steam powered drop hammers brought a stamping process to key making, superseded by the discovery of malleable cast iron which came into use for casting key blanks from around 1816: these processes are reflected in the changing shape of key bows as mass production was introduced.

### Church Locks

Many different types of locks can be found on church doors, depending on age, location and patronage. They might be either rim locks, mortice locks or even padlocks, and be of completely metal construction or of wood and iron. The doors of many historic churches still carry an old wooden lock although often you find that a modern 5-lever mortice lock has been installed along side it to meet insurance requirements. Some of these old locks will date from the foundation of the church and some from when the original door was last replaced, but many are the result of a Victorian makeover.

The generic name for the family of wooden locks is 'woodstock locks' a term dating back to the specialisation of trades springing from smithing, with some terms in common between the various branches. The earliest form is the 'Banbury lock' (Figure 1) in which the wooden stock is an integral part, with the metal components of the lock being mounted in the wood; the key is of a very distinctive form, with the collar being located within the width of the bit. Before industrialisation many Banbury locks were made by local craftsmen and so, especially amongst early ones, there are many variations to the standard deadbolt pattern, some having latchbolts in addition, operated by the key; some having double bolts and some double-handed for use in either a right-hand or left-hand application. There were also great differences, especially in the 18th century in the external shape of the keyhole, necessitating special keys, an additional security

measure.

Improved iron working techniques in the 18th century were used in the 'plate lock', when all the working parts were mounted on a metal plate and the wood was merely a cover. Plate locks also had a long history of development, characterised by the shape of the metal plate which reflected the increasing degree of mechanisation in forming the corresponding recess in the stock. This progression from dovetail shape to rectangular, to rectangular with rounded corners, and to semi-circular end clearly illustrates the stages of development from hand made artefacts to the products of industrial processes via the ever increasing use of powered cutters. However, as the industry as a whole, with a few notable exceptions, was composed of small 'backyard factories' there was a considerable degree of overlap between all these various features which can make dating very difficult; for instance a modified version of the Banbury lock was made up to the end of the 19th century and even later. Woodstock locks were not left out of the proliferation of lock patents, there being several incorporating greater security, easier operation and different methods of manufacturing the various components.

One further development was fuelled by the Victorian passion for refurbishing churches and for things 'gothic'. This was the 'church door lock', a specific item which incorporated a latchbolt and ring handle as well as the deadbolt. As they were designed for use in this burgeoning market they are usually of much heavier and better quality, with varnished oak stocks and often highly decorated with chamfering and ornamental metal work. There was even a small market for imitation medieval locks, with a large and splendid stock covering a very ordinary standard lock mechanism.

Woodstock locks seem to have been the preferred lock for church doors until the 20th century and the need to meet modern security requirements. However, iron case rim locks, especially the better quality ones from the latter half of the 19th century were sometimes used on new build churches and also mortice locks for those with a 'Modern' style or new doors. Locks were not used solely on the main doors; there will usually be locks on bell towers, vestries and organ lofts too, often as old as the church, sometimes remaining forgotten during a modernisation. Ornamental wrought iron screens and gates enclosing private chapels and mausoleums were often fitted with specially made locks decorated in matching style, while outer porch grille gates have stout locks, although, being exposed to the weather, few have survived in working order, often being replaced by a modern padlock.

Then there is the parish chest which traditionally had three locks. These could be any combination of locks and/ or padlocks, with the vicar and church wardens each having the key to a different one so that all three

needed to be present to gain access. Some parish chests date back many centuries but not many of the locks remain. Some small churches also retain an ancient and crude alms or poor box, sometimes with provision for two locks, but these locks have rarely survived, having been superceded by modern padlocks or replaced by small 19th century and 20th century wall safe donation boxes. There are often small locks on aumbry doors (an aumbry is the small niche close to the altar in which the sacrament is kept), some of quite high security, and there is the ubiquitous cast iron strongbox installed in response to the George Rose Act of 1812 requiring church registers to be kept safely in an iron box. These safes are fitted with locks which have very complex warding (the gate through which the key passes when it is turned - see *Figure 5*), requiring skilfully made keys of the highest standard, carrying on the tradition of Georgian strongroom key.

### Conservation, care and maintenance

Locks are very often forgotten in any conservation and maintenance programmes, being regarded as totally utilitarian objects, while other aspects of church architecture and decoration of a similar age are looked upon as remarkable. Because, upon the whole, very little is known of their history and development and there is very little published material to guide those interested, most people do not recognise what exceptional artefacts are in their care. Because they are usually strongly made and can withstand an enormous degree of neglect no notice is taken of them until they cause trouble. It would perhaps be useful to include them in the 'quinquennial inspection', the essential survey of the fabric carried out every five years in Anglican churches.

To ensure that problems are discovered in time, examine all the keys for signs of wear such as deep grooves on the nose of the key or on either side of the bit; these can lead to poor location of the key in the mechanism and difficulty in operation. Look at the keyholes, have they rusted or worn oval so that the key flops about, another cause of poor location. Remember always that a key and a lock work together and wear together, so when having a key duplicated if it is worn the result would be two worn keys! It is always better to make a key to the lock than to copy from a pattern key: locks can usually be fairly easily removed from doors, and, while the new key is being made, can be refurbished to bring them back to much easier and more efficient operation.

Test the lock by locking with the door closed, if resistance is felt, try again with the door open. If the bolt extends freely, check the alignment of the bolt with the staple on the doorframe; the door may have dropped due to wear on the hinges or loosening of the wood joints and the bolt may be fouling the bottom of the staple. The closing of the door may have been affected by swelling of the wood in wet weather or damp

conditions, again, causing the bolt to foul the staple; if only a minor or temporary degree of distortion is present, learning to exert firm pressure on the door whilst turning the key is usually sufficient to overcome the problem.

Still with the door open, operate the lock so that the bolt is extended; if the bolt can be pulled further out until a sharp click is heard, this indicates wear to either the key or the lock mechanism or both and that the bolt is not seating correctly, which will eventually lead to a lockout situation; if the bolt can be moved freely to and fro, usually the spring is broken and as above could lead to a lock-out, but in addition this fault compromises the security of the lock. In both cases advice should be sought urgently.

The front limb of a large key will often be bent slightly in towards the centre cut of the bit, being the piece which normally hits the ground first when the key is dropped; this should not be straightened unless absolutely necessary, as it is liable to fracture. Check that it is not cracked as well; if it is going to break off it usually does so inside the lock during operation, so if it is cracked at all, the key needs attention. Check that there are no shiny wear marks other than those on the nose of the key caused by operation of the mechanism, and also that the key still turns easily in the lock and there are no tight spots; all these symptoms indicate extra wear to the lock. If there are multiple keys to a lock, compare them: they will probably differ quite markedly in size and form, having been replaced or added to at various times and with differing degrees of expertise, ranging from the keys which originally came with the lock, to a competent locksmith, to the local hardware shop or blacksmith, to 'Fred the handy church warden' who just happened to have a key which with a bit of bodging would operate the lock. These varied keys will have been causing all sorts of problems to the lock over the years. Some will need to be discarded before they cause further damage but most can be brought to an average and the lock restored to good working order to accommodate them all. If the lock also has a latch mechanism, turn the handle or knob and note how far it has to turn before starting to retract the latch bolt; if it is more than a few degrees, then the latch mechanism must be worn.

Conservation and care of locks is really a simple matter once an inspection and maintenance programme is instituted and, mostly, is a matter of common sense. For example, a covered escutcheon on the outer face of a south or west facing door can do a lot to inhibit rusting of the mechanism of a lock by keeping out some of the prevailing weather. With woodstock locks check for signs of active woodworm, more common in later, cheaper quality beech stocks, especially if unvarnished, and treat with a proprietary solution. Discourage those who wish to oil locks or pack them with grease; oil and grease go tacky with time, hampering

the smooth working of the mechanism, and grit and dust which enters through the keyhole will stick to it, making a most efficient and wearing grinding paste. If oiling is felt to be absolutely necessary, use a graphite based product. Be aware and do not leave keys, especially attractive ones, easily available, there are light fingered people around. Above all, keep an eye on 'Fred'!

### DO'S

- Seek help as soon as a lock becomes awkward or temperamental
- Protect a lock from the weather if possible
- Try new keys with the door open
- Call in a qualified locksmith (consult your Diocesan Advisor or the Master Locksmiths Association)

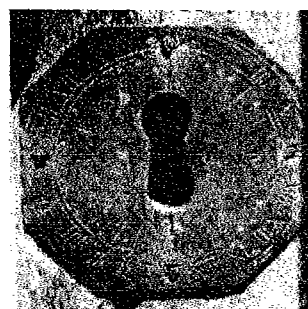
### DONT'S

- Use extra force to turn a tight key: the need for more than hand pressure indicates something is wrong
- Use oil or grease in a lock
- Drop keys or toss them down; do treat them gently
- Let well meaning but inexperienced people repair locks or make keys

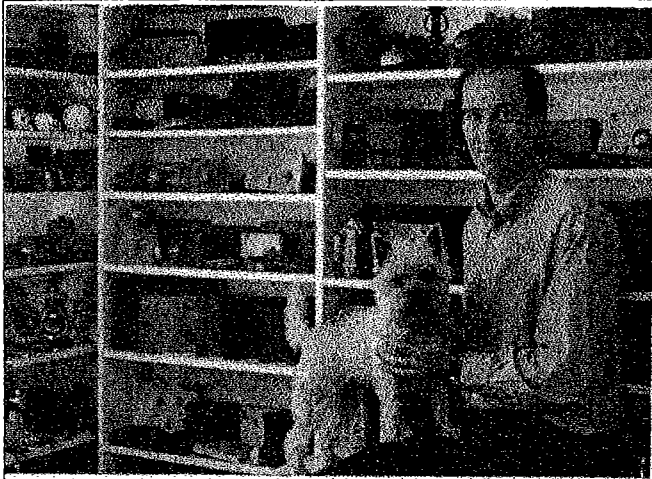
*Valerie Olifent* is a prtner with her husband in their specialist locksmiths business 'The Keyhole'. They specialise in the repair and restoration of pre-1940 locks and the making of appropriate keys. They hold large stocks of period locks, keys and blanks. The Keyhole, Pilgrim's Progress, Far Back Lane, Farnsfield, Newark Notts NG22 8JX  
Tel 01623 882590

### Early timelock?

This 'sundial keyhole escutcheon' is on the door of Sydenham Church, Oxfordshire.. Many sundials (mass clocks) remained in use on churches until the nineteenth century. This escutcheon is too small ever to have been an actual sundial — just another lock-related curiosity!



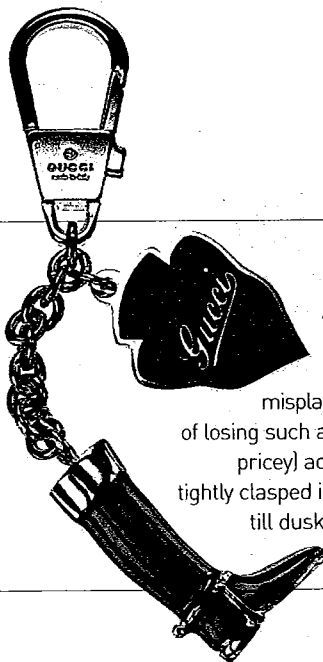
## Pictures of collections



Donald Dion's collection of mainly pre-1900 locks and door furniture (and Bobby the Cairn Terrier). Donald also has a large collection of books and catalogs.

## Key rings

There are countless keyrings or key tags or keyfobs about — some people do collect them. From early chatelaines to utilitarian splitrings, the variety is huge, decorative and practical. Maybe I'll do an article on the keyrings you can't do without (according to the mail order catalogues). Meanwhile, I couldn't resist including this one, from the *Telegraph* magazine.



### Key grip

Attach your keys to this chic Gucci keyring and you will never misplace them again — the fear of losing such a trendy (and, inevitably, pricey) accessory will keep them tightly clasped in your hand from dawn till dusk. Keyring, £85, by Gucci (020-7629 2716)

## 'Some nice old locks'

At the Master Locksmiths Association convention earlier this year, there was a stand allocated to lock collectors.

There were several collectors present with old locks on display and some for sale. Trading was quite brisk on Saturday.

On Sunday morning, however, the convention was much quieter. Most of the locks for sale had gone. A locksmith came to the stand and enquired of one of the collectors whether he could buy 'a nice old lock' to display in his shop. The collector suggested that one of the other stands might be able to help: 'They have some nice old locks in a cupboard with a glass door.' He pointed to a stand behind the enquirer. The locksmith thanked the collector, and turned to see where the collector was pointing ... and laughed!

Chubb had a large safe, one of their better models, with a glass door inside it, and on a motorised turntable stood the **Aubin Lock Trophy**.

The safe had both a keylock and a combination lock, but Chubb did not rely solely on these — it also had a timelock. Many of the country's professional safe openers were gathered at the convention, together with most of the professional instructors in safe opening, so Chubb were taking no chances!

The Trophy received scant mention in the *Official Illustrated Catalogue* of the Great Exhibition, but is fully described in PRICE, George *Treatise on fire and thief-proof depositories*. London, Simkin Marshall, 1856 (below). It was bought at the Great Exhibition by A. C. Hobbs, and is now owned by Chubb, now part of the ASSA-Abloy Group.

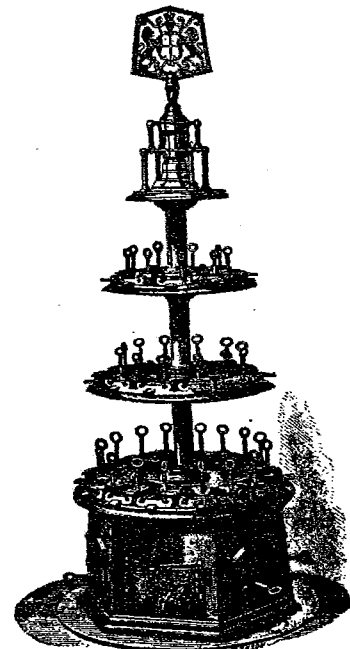

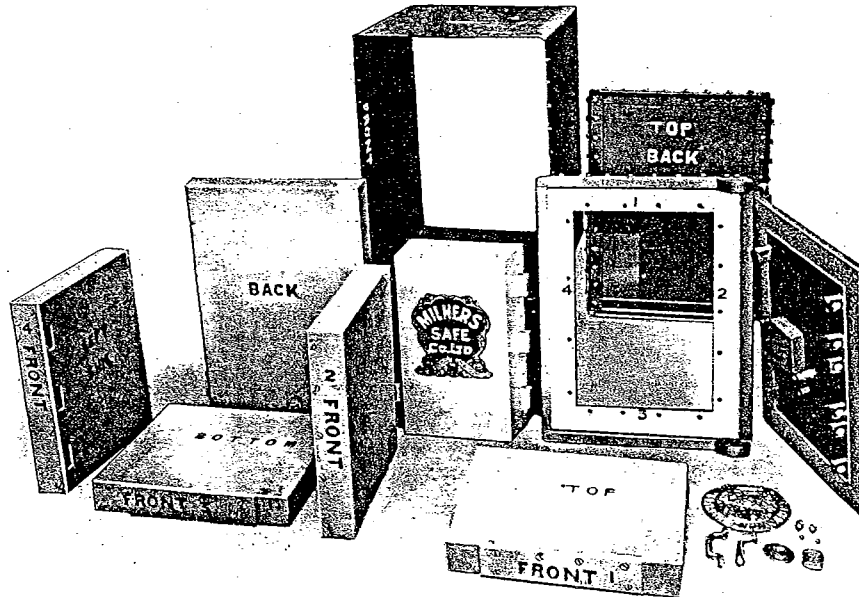


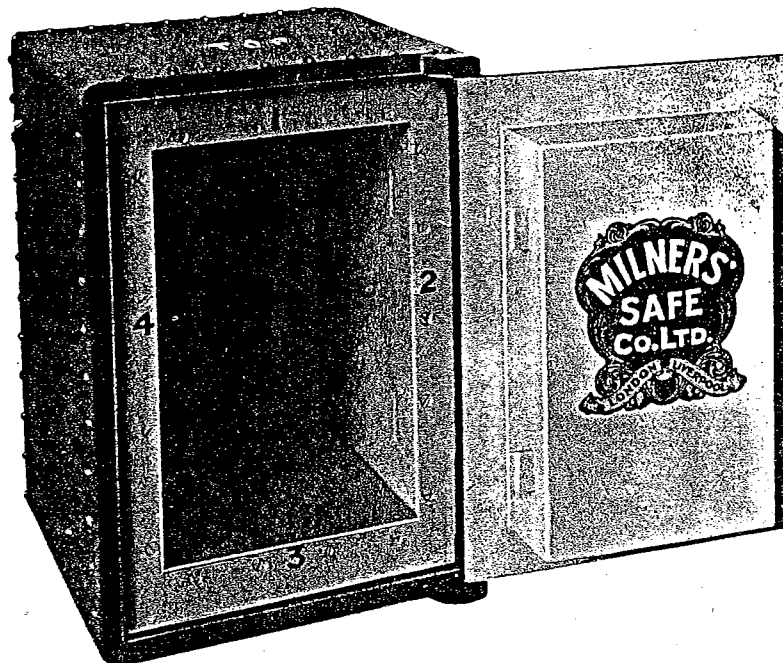
Fig. 246.—Aubin's Lock Trophy.

**MILNERS'**  
**SAFES IN**  **SECTIONS**

For convenience of transport, and of portorage in regions difficult of access, Milners can make specially-constructed Safes in Sections to be built together at the destination. The Safes lose nothing of their powers of resistance from being made in sections; they are manufactured with the utmost care, all parts being finely and accurately finished in order that they may fit together with exactitude. Before leaving the Works they are first fitted together complete, and every part carefully marked before being passed.



The Component Parts of a Milners' Fire-Resisting Safe in Sections.



Photograph of the same Safe when built together.

Milners will be pleased to quote for Safes built in Sections upon receipt of an idea as to requirements.

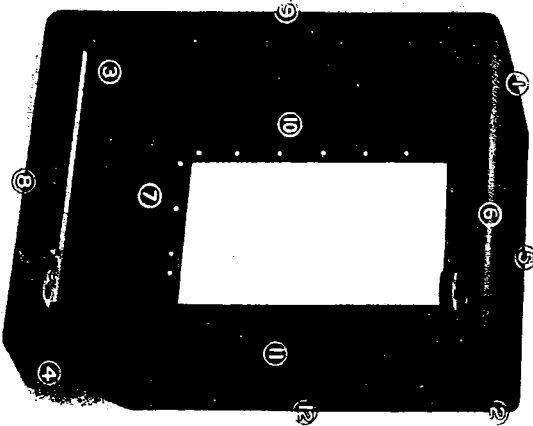


Number	Size outside Inches	Inside over Drawers	Fittings
1	20 × 15 × 14	10 × 9 × 8	One Drawer
2	22 × 16 × 15	12 × 10 × 9	" "
3	24 × 17 × 16	14 × 11 × 10	" "
4	26 × 18 × 17	16 × 12 × 11	" "
5	28 × 19 × 18	18 × 13 × 12	Two Drawers
6	30 × 20 × 20	19 × 13½ × 13½	" " One Shelf
7	32 × 21 × 20	21 × 14½ × 13½	" "
8	36 × 24 × 22	25 × 17½ × 15½	" "
9	42 × 26 × 24	29½ × 18½ × 17½	" "

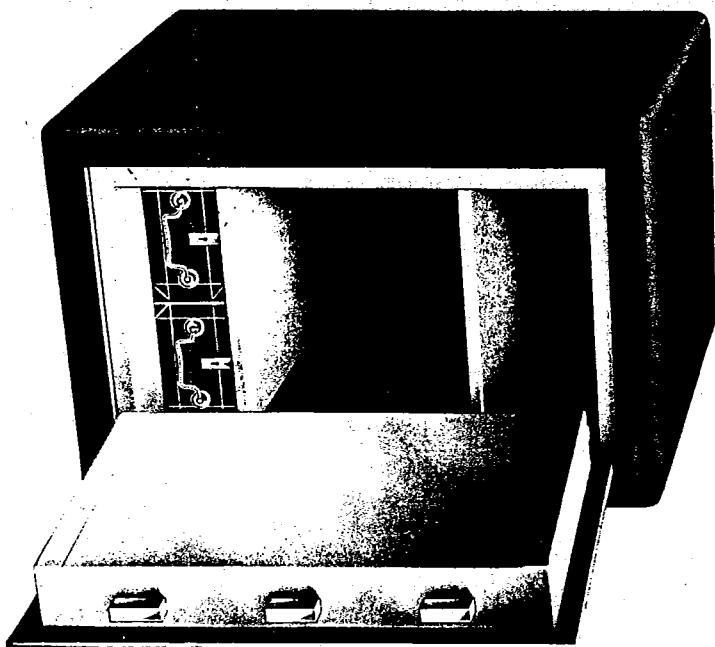
SHELVES ARE MOVABLE.

HERE ARE THE  
TWELVE BENT  
STEEL CORNERS

.....  
We are in a position to quote competitive prices for strong room doors, bankers' drill proof and Oxy-Acetylene proof safes, also strong rooms complete to any capacity



The Twelve-Corner Bent Steel Safe



Specification

Body Plate—top, bottom and sides, **One Steel Plate bent at all corners** by hydraulic power; back and front edges flanged and the mitre joints welded solid by the Oxy-Acetylene process. Solid steel door plate from 6 in. thick, with all edges correctly planed, sliding steel bolts controlled by a brass lever handle and secured with a **6-lever lock**, duplicate rustless keys to each

Wrought steel chambers 3 in. in thickness filled with best quality fire-resisting material

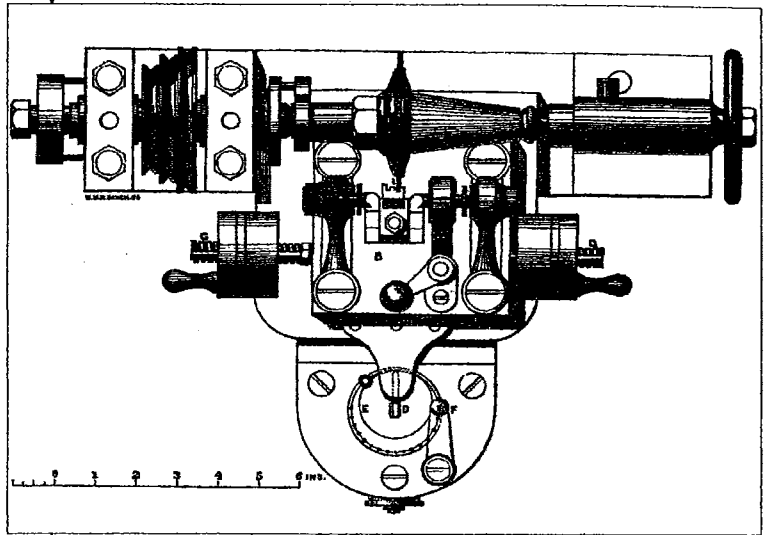
THE ALL-STEEL SAFE

British Material and Labour Throughout

## Key cutting machines

According to George Price, in the earlier part of the 19th century there were only six in the lock trade who cut their keys by a machine. Messrs Bramah were first, on a machine made by Henry Maudsley. Messrs Mordan made their own machine. (Presumably for cutting the Bramah-type keys they made when the Bramah patent expired. Mordan also made some lever-type locks, whose keys are presumed to have been cut by hand.) Duce had a machine constructed by a Mr Henfrey. Aubin made himself two machines – one for Bramah keys and the other for lever keys; Aubin also made a machine for a Mr Turner.

The other company cutting keys by machine was Hobbs; Alfred Hobbs himself made the machine. Hobbs' machine used several circular saw cutters, one for each step. The cutters varied in diameter to produce different depths of cut; and they varied in thickness to produce the correct spacing. Thus, deeper cuts were wider than high steps. All the cutters were ganged up on the same shaft, so all cuts were cut



*Machine for cutting keys to Fenby's Adytic lock. This used a detachable bit, seen in the centre of the machine, below the saw. The eccentric wheel for setting depth of cut is at the bottom of the diagram.*

### Operation of Key-Cutting Machine

First depress the gun-metal thumb piece which brings the lateral stop into position, then fix the guide or key required to be duplicated in the right-hand clamp, taking care to see that the back of the key is "up" to the back of the clamp, and that the ear of the key is just touching the gun-metal lateral stop. Proceed then to fix the blank into the left-hand clamp, observing the same precautions. Move the gun-metal stop out of the way by lifting the thumb piece, and then, while turning the handle, bring the former bar to the bottom of each groove in the guide key. When the angle of the groove in the guide keys is greater than the angle of the cutter, it will be necessary to move the lever operated by the left hand so that the former bar travels up and down each side of the groove to be duplicated. This enables any angle groove to be cut on the well-known copying principle.

#### Changing for Cutting Flat Keys.

Remove the cutter No. 8502 and the standard former bar, and replace with cutter and special washers 8503 and former bar 8504. "Set" by observing the instructions, "The Adjustment of the Machine."

#### To Cut Flat Steel Keys.

Insert the guide key in the right-hand clamp, and the blank in the left-hand, but before tightening the latter down, position it by lifting the lever and bringing the bottom of the guide key into contact with the left-hand edge of the former bar. Push the blank up until it touches the left-hand side of the cutter, then tighten down.

If the lever grooves are wider than the cutter it will be necessary to take two cuts per groove, the first with slight pressure bearing on the right side of the former bar, and the second with the same pressure on the left-hand side. Care must be taken not to exert too much pressure.

We recommend in each case that the blank used be of the same make as the keys to be duplicated.

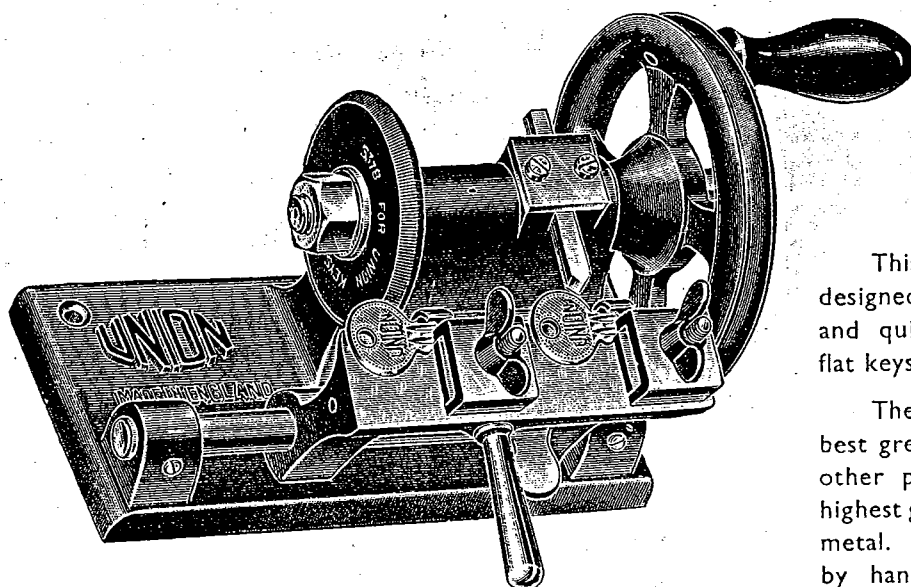
simultaneously. Written lists of key combinations could ensure both accuracy and differs. If required, several keys could be cut exactly alike, but normally keys were cut differently. Workmen cutting keys by hand tended to repeat some patterns, so that it was difficult by hand to make the complete set of differs possible.

Simple key machines were later made by others on the principle of several cutters ganged on the same shaft; there was an example in the Lock Museum in Willenhall.

J. Beverley Fenby, a mechanical engineer, invented a lock called the Adytic Lock. He also invented a key cutting machine. This machine used a single circular saw with arrangements to cut keys by code. Depth of cut was set by turning an eccentric wheel to any of its fixed positions. Spacing was controlled by a lead screw, one complete turn moving the key blank sideways a distance of one step. Further, the key bit holder can rock upon a centre, so that after cutting a step, it is then evenly rounded on both sides!

Cutting keys by machine was made common by the Yale & Towne Manufacturing Company towards the end of the 19th century. Keys were easily cut to pattern, and first keys could be cut using a set of depth keys. Hand-operated machines similar to that shown on p11 were common into the 1960's.

The gauge could compare keys cut with different-shaped milling cutters.



**No. 8500**

This machine has been designed to cut accurately and quickly cylinder and flat keys.

The base is a heavy best grey iron casting, the other parts being of the highest grade steel and gun-metal. It may be operated by hand or power, the

driving wheel being grooved to take a round leather driving belt. Convenient fixing holes have been arranged to enable the machine to be held rigidly on to an ordinary work bench.

The machine is supplied complete with cutter suitable for all cylinder keys, and a further cutter and forming bar required to cut flat keys or keys with a parallel lever slot.

**The Adjustment of the Machine.**—Each machine is “set” for cylinder keys before despatch, but, should the key produced on the machine be cut too deep or shallow, adjustment may be made by slacking off the two screws holding the former bar, putting a blank key in each of the clamps of exactly the same width, and moving the former bar until it just touches the blank key at the moment the cutter touches its appropriate key, then re-tighten screws. Other adjustment should not be necessary, although provision has been made to take up any play in the spindle.

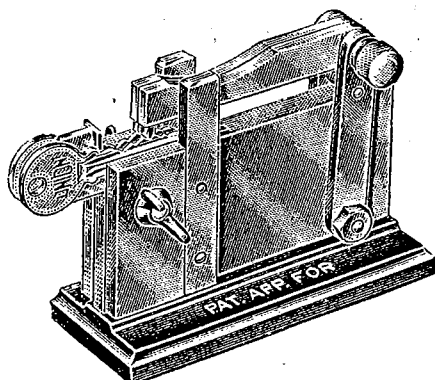
Care must be taken, when replacing the cutter, to see that the directions stamped on the cutter are duly observed.

**Price each machine, £6 10 0**

No. 8502 Spare cutter for cylinder keys, each	...	...	...	...	...	15/-
No. 8503 Spare cutter for flat lever keys, each	...	...	...	...	...	7/6

**Test Gauge**

for testing Cylinder Keys after a Key has been cut to pattern.



**No. 8501**  
**Price**  
**£2 5 0**  
**each**

## Questions from readers

**W**rite in to "Locks & Keys" with your questions about locks. Somebody will surely be able to supply answers. The Editor will be pleased to print a composite answer to questions. When replying, please mention the number of the question.

There are no questions or answers for this issue.

## For sale / wanted

Hiatt Speedcuffs £25 + p. and p. Also some old round leather pouches for handcuffs £8 + p. and p.

*Trevor Dowson* 17 Landseer Drive Gladless Valley Sheffield Yorkshire S14 1BS



Bates Holdfast padlocks; Codelocks, padlocks, or parts.

*Ian Webb* 8 Cezanne Crescent, Wheelers Hill 3150 Melbourne, Victoria Australia  
ian56webb@hotmail.com

Dear Richard,  
I have been an amateur but avid key collector for many years, and a subscriber to *LOCKS AND KEYS* for perhaps two years. Is mine a lone voice in asking two basic questions concerning key and lock collecting in the UK: where can collectors buy good quality and genuine antique door keys today; in other words, how do the owners of growing collections add to them? And, why isn't there a UK collectors association to promote the subject and, for instance, organise informal swap meets, formal auctions, and presentations from known collectors, curators and custodians?

Apart from the (occasional) reader's letter to your pages, a trawl through the Internet, and what you print in the Newsletter from your own sources and searches, it is impossible to identify other collectors and, hence, join any existing group or network of like-minded people. I sense strongly that, as an unknown and singleton collector I miss many buying opportunities; and I would very much like to stop the loss before too many more slip through my fingers. As I

## Houdini's secret out of the bag

**I**t's the magic trick that made Harry Houdini famous and spawned a thousand imitations.

Handcuffed inside a sack and locked in a trunk, the escapologist switches places with an assistant on the outside in the blink of an eye. For more than 100 years, the technique has been among the most closely guarded secrets in the magic world. But yesterday, a museum let his "Metamorphosis" trick out of the bag - leaving magicians and illusionists around the world fuming. Famous illusionists such as David Copperfield and many other practitioners have contacted the Outagamie Museum in Appleton, Wisconsin, to protest at its 'A.K.A. Houdini' show.

They say their code of ethics bans revealing secrets to the public. 'This is a very, very passionate thing that magicians feel about and what the museum is doing is wrong,' said magician Ronald 'Rondini' Lindberg. Museum bosses in Appleton, where Houdini spent some of his childhood, insist the exhibit has not revealed anything not already available in books and on the Internet. They also say people would appreciate magic more by knowing the secrets, but just in case, a sign warns: 'Those who do not want to know how Houdini performed his magic should avoid this area.'

The exhibition - set to run for ten years - includes 38 artefacts and 190 documents. There is a straitjacket and a jail cell from which visitors can try to escape, plus Houdini items such as handcuffs and lock picks.

Museum curator Kim Louagie said that, before the exhibit opened, she had received more than 200 e-mails and phone calls of complaint.

But she had also received support from museum members and others. 'What we're doing here increases the value of magic rather than making it something cheap,' she said. Houdini was born Ehrich Weiss in 1874, in Budapest. His family moved to Appleton when he was four, when his father became the town rabbi.

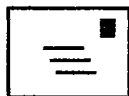
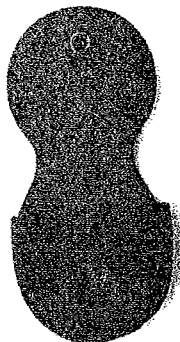
He embarked on a career in magic and later focused on escapes.

He died of peritonitis resulting from a ruptured appendix in Detroit in 1926.

*Sabi Phagura*  
Metro 4 June 2004

asked above, is mine a lone voice in wanting to establish lines of communication between keen collectors?

Yours sincerely, *Marek Gitlin*  
Hidden Beck House, Ousby, Penrith, Cumbria CA10 1QA tel. 01768 881416



# Locks: genuine, fake and modern; and a French furniture lock

**T**hese days, there are fake locks being made, mainly in eastern countries, India and probably further east, for sale to collectors. Many of these are padlocks. However, there have sometimes been reproduction/fake locks made in the past, and more recent times, which raise an interesting question. Some locks are actually wrong — fantasies which never had a genuine existence in the past, and copies which are inaccurate, and therefore, may properly be called fakes. There have been, however, some of their old patterns of handcuffs remade in more recent years by Hiatts, at the behest of a collector. Are these genuine, reproduction, or fake?

Shooters have already debated this question for years without coming to any firm conclusion. The Colt Single Action Army model of 1870 ceased production, but demand continued. Colt, the original maker, actually produced this old model during most years of the 20<sup>th</sup> century! Genuine, fake, or reproduction?

A couple of years ago, Hiatts produced a quantity of one of their old models, (model 115 in modern designation) for a mail order gift catalogue company. They were coated in matt black paint rather than oxidised brown or black, and key, though functional, is somewhat rough. The catalogue coyly describes them as 'very old-looking and look like they've just been retrieved from a dungeon'. It does not actually say they *are* old, or admit they are new. Hiatts' website [<http://www.hiatt-thompson.com/index.cgi>] now sells several old patterns, newly made. Their website sells model **115HP: Antique Finish** for \$38.50.

Recently an eBay seller offered what appeared to be one of the gift catalogue handcuffs with the description of 18<sup>th</sup> century Civil War slave cuffs. Fake? Certainly, Hiatts did export handcuffs to America in the 19<sup>th</sup> century. The non-adjustable Darby (now model 104) certainly was used during the Civil War. I cannot yet confirm that they exported this model, however. The Chinese have also been re-

making antique patterns of padlocks, both 'expanding barb chinese padlocks', and combination locks. These are clearly not actually *antique*, but are they in any other sense genuine?

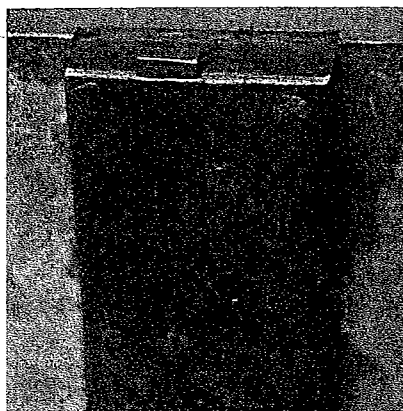
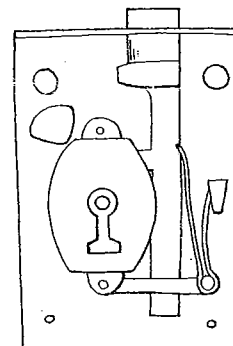
Below is a study from a furniture book of a lock made for a piece of reproduction furniture. Old styles of furniture are often copied, but usually without an intention to deceive. 'Marriages', however, are often intended to deceive. This piece has a lock which is definitely fake, as it is wrong for the piece in several respects.

I know of some antique style cabinet locks being handmade to order in Britain, but am not aware of a commercial-scale of production of replica/fake locks.

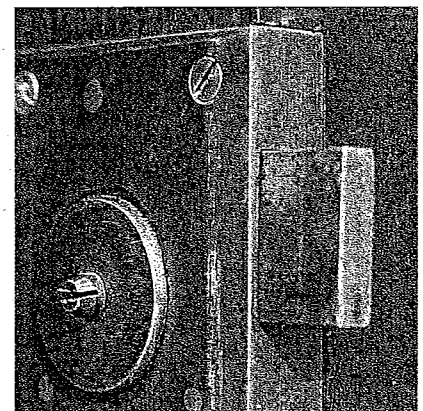
## Locks: Genuine, Fake and Modern

➤ **This artwork shows the style of lock typical of the Louis XIV period, c.1700**

The steel on locks such as this would have rusted and the edges would show traces of hand filing. Note that the upper screw holes are considerably larger than the lower ones — this does not help with dating but no copyist ever makes them like that and few fakers would think of it. This a typical French 'double-throw lock and the tongue is shown half out.



▲ **A small fake modern lock**  
About 30 years old, this is a determined effort at faking, but is far too small to be of the 1730–50 period it tries to simulate. The steel has the robustness of a tin can compared to an original lock. The tongue has only a single throw — an elementary mistake.



▲ **A late 19th to 20th-century French lock**  
A straightforward lock of the type used in France from the mid-19th to the early 20th century. It still has a double throw (here fully extended) but is made of brass and is much smaller than its predecessors.

(Continued from page 1)

about this 'lock', however, is that on closer inspection, it is not a lock, but a latch.

Surprisingly, it has a single large, *square* bolt; there is no bevel on the bolt. Instead, there is a well-rounded bevel on the doorpost! This bolt is a sliding bolt, and is spring-supported. Despite years without maintenance, this latch still works, albeit somewhat stiffly.

We are accustomed to thinking of latch bolts as being bevelled. In the last few decades some trigger action deadlocks ('automatic deadlocks') have become well-known, if not widely popular. Even the trigger action, however, dates from the middle of the last century. It was early used on railway carriage doors; but its use on prison cell doors has been responsible for a phrase entering the language — 'banged up'.

An even earlier design used the idea of a square bolt which could not be pushed back by pressure on a bevelled edge. This was the Chubb combination latch of 1829. It was called 'combination' because its bolt consisted of a set of several, usually 5 or 4, flat lathes stacked together in combination. The bolt was an extension of the lever, each lathe being lifted by its own step on the key. The staple on the door frame was bevelled to enable the door to be pushed closed, like a Suffolk or Norfolk latch. Probably these were developed from the earlier 'hatchet' or 'long' latch, which were also lift-up latches.

When pivoted doors were fixed in wall openings, it was of course convenient to be able to fasten the door against the wind by merely pushing it shut. Latches, originally of wood, were gravity-impelled lift-up types — often operated by pulling a length of cord protruding through a hole on the outside of the door. The bolt, sometimes a vertical sliding block, sometimes a pivoted bar, rode up a ramp on the doorframe then dropped down behind it. Later, metal was more often used, but the metal latch was almost always a pivoting latch. In those days, however, the home was rarely left unoccupied, so an actual door lock was little needed.

The Gloddaeth Hall latch is one of very few spring supported square bolt latches in Britain, and was presumably unusual even in its day.

Probably in the late eighteenth century, a walk-in strongroom was built in a corner of the kitchen behind the hall, fitted originally with a cast-iron door and one large iron-cased warded lock (which is now missing).

A grand west wing was added about 1890 west of the great hall. The new west front included a modern strongroom with a modern door having moving bolts operated by a handle, and two key locks. The old kitchen became a storeroom, and the old strongroom ceased to be used.

Gloddaeth Hall is not open to the public.

Richard Phillips

## Books

THOMAS, Brin *Safe saving*.

I published this booklet about moneyboxes because as a collector I was interested to find out their origins. Having done a lot of research I thought that other collectors would be similarly interested. I sell through eBay and a dealer at Collectors Fairs. My address is: bcthomas@btinternet.com 6 Portway Steyning West Sussex BN44 3QF. The book costs £5.

CAMPBELL, Marian *Decorative ironwork* / Marian Campbell. London : V & A Publications, 1997. 143p :

ill(some col.) ; 28cm 1851771956, 1851771964 (pbk). Includes bibliographies and index. Victoria and Albert Museum. Government publication. Bibliography included. Held by: Manchester; Southampton; Trinity College Dublin  
GARDNER, John Starkie *English Ironwork of the XVIIth & XVIIIth centuries: an historical & analytical account of the development of exterior smithcraft ...* With 88 colotype plates from photographs chiefly by Horace Dan ... and upwards of 150 other illustrations. London : B. T. Batsford, [1911.] Physical desc.: pp. xxxvi. 336. ; 8o.

HEFNER-ALTENECK, J. H. von (Jacob Heinrich), 1811-1903 *Decorative ironwork of the Middle Ages and the Renaissance* / Jakob Heinrich von Hefner-Alteneck. Mineola, N.Y. : Dover Publications, 1996. 84p : chiefly ill ; 29cm . 0486292606 (pbk) 'This Dover edition ... is a republication of the basic 84 plates from *Serrurerie, ou les Ouvrages en Fer Forgé du Moyen-Age et de la Renaissance* (French edition - published by Librairie Tross, Paris, 1870 - of a German work)' - bibliographical note. Held by: British Library; Cambridge University; National Library of Scotland; Oxford University; Trinity College Dublin

MEYER, Franz Sales *A Handbook of Art Smithing ...*

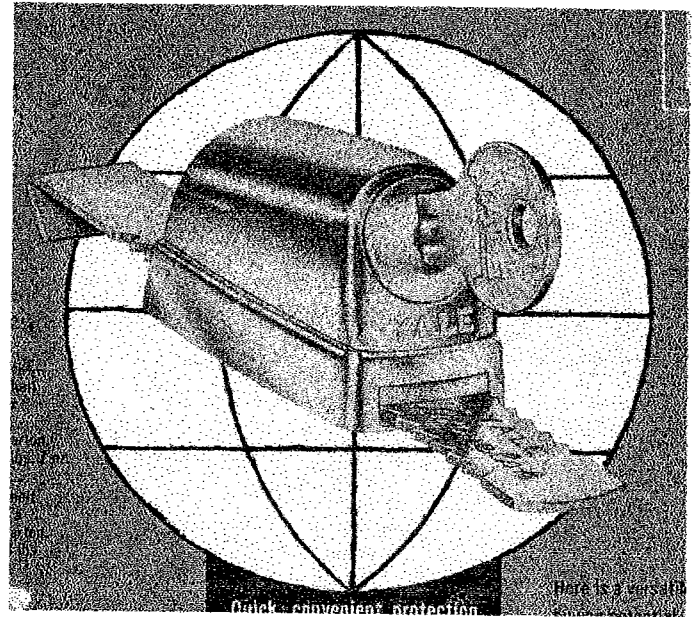
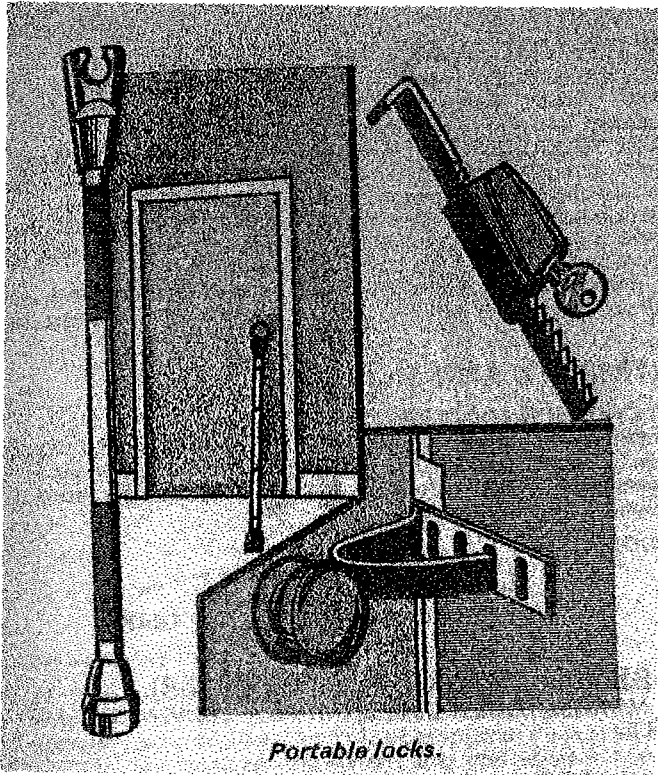
Translated from the second and enlarged German edition. With an introduction to the English edition by J. S. Gardner, etc. London : B. T. Batsford, 1896. Physical desc.: pp. viii. 207. ; 8o.

MUSEE LE SECQ DES TOURNELLES *Catalogue du Musée Le Secq des Tournelles Fasc.2: Clefs et serrures : des origines au commencement de la Renaissance* / [Catherine Vaudour]. [Rouen] : Le Musée. 77 p : ill ; 30 cm . French language. Held by: Imperial College

SOUTH KENSINGTON MUSEUM, afterwards Victoria and Albert Museum (London): *Ironwork: from the earliest times to the end of the mediaeval period*. (From the close of the mediaeval period to the end of the eighteenth century, excluding English work) / by J. Starkie Gardner ... With ... illustrations. Series: South Kensington Museum art handbooks. London, 1893-1896. 2 pt ; 8vo.

STREETER, Donald *Professional smithing: traditional techniques for decorative ironwork, whitemithing, hardware, toolmaking, and locksmithing* / Donald Streeter ; with photographs and drawings by the author. London : Murray, 1982, c1980. ix, 133p : ill ; 28cm. 0719539048. Includes index. Originally published: New York : Scribner, 1980. LC79027351. Held by: Cambridge; Edinburgh; National Library of Scotland; Oxford; Sheffield; Trinity College Dublin

# Portable locks: an old idea, in continuing use



*Portable locks. Above, telescoping tube with rubber feet, wedges under door handle; Yale Travelok L-107; unidentified door wedge lock. above right. The Yale Travelok L-107, 1960's advert. right. Various uses for a key-operated portable lock, in addition to room, (e.g. hotel) doors.*

<p><b>DOORS</b> HOTEL MOTEL LOCKER GARAGE</p>	
<p><b>DRAWERS</b> DESK KITCHEN BUREAU</p>	
<p><b>CABINETS</b> MEDICINE LIQUOR FILE</p>	

Portable locks seem to have been invented about 1830 by Samson Mordan (see issue 1), who invented the keyhole-blocking lock. This fits into, and locks inside, the keyhole of an existing lock, such as a warded or lever lock.

Aubin invented another such device, he called 'a protector', which is placed inside the keyhole and secured by a padlock outside. Aubin also invented an expanding wedge to go under the bottom of the door, such that pushing only made the door tighter.

Subsequently, a Mr Rudhall improved this wedge by fitting a percussion cap, which, when the door is forced, explodes with the report of a pistol shot. In modern

times, this has been replaced with a continuous buzzer powered by an electric battery.

The keyless wedge lock for fixing doors (even if the door has no lock of its own), has been around since at least the beginning of the 20th century (see back page).

This useful idea is so inexpensive, some universities in modern times have even given them to students to assist their protection in hall and lodgings.

The Yale Travelok shown above from a 1960's advertisement, was widely advertised in America, but I am not aware of its being sold in Britain.

Information from *Trevor Dowson* etc.

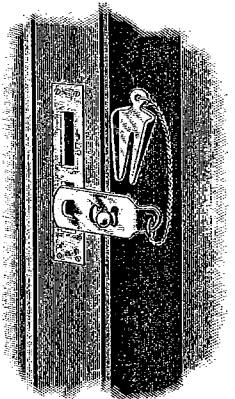
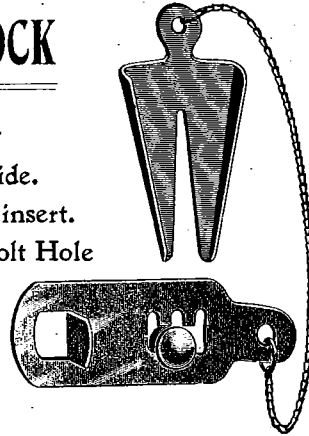
American 1903

## THE WEDGE KEYLESS LOCK

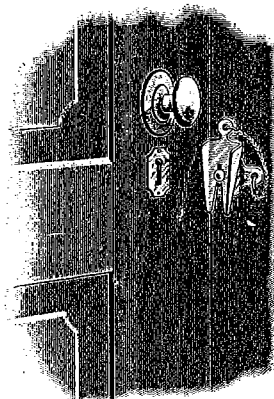
### ABSOLUTELY BURGLAR-PROOF.

Cannot be Tampered with from the Outside.  
Fits Any Door. Takes but a moment to insert.  
May be inserted in either Latch Hole or Bolt Hole  
No Key Necessary with this Lock.

**T**HE Wedge Keyless Lock is built on strictly mechanical lines of the very best materials and will last a lifetime. The shank of the button being held close to its bearing on the straight bar, will withstand any pressure. The greater the pressure the firmer it holds—a marvel of simplicity and strength. It is a good thing to have, even if you are willing to trust a key, for oftentimes a key becomes lost or misplaced. You do not need to go even one night with your door unlocked while waiting to have another key made.



Shows Manner of Inserting Lock



Shows Door Closed and Locked

But a key is not a sufficient safeguard against a burglar

**THE WEDGE KEYLESS LOCK IS THE ONLY LOCK YET INVENTED THAT WILL KEEP AN EXPERT BURGLAR OUT**

**No Screws, Tools or Nails Needed to Apply this Lock to Any Door**

Here is another important thing to be considered: Everybody travels now-a-days. This lock is worth many times its cost in the security to life and property which it insures to the possessor when away from home.

**If You Travel Any You Cannot Afford To Be Without One**

Though very strong, being made of cold-rolled steel, it is also very light, weighing but two ounces, and can therefore be carried in the pocket without the slightest inconvenience.

**Agents Given Exclusive Territory**

And notice how simple the process of application and use.

**DIRECTIONS**—Insert lip of straight bar in latch hole or bolt hole of door jamb and close the door. Adjust the button in slot to thickness of door, then slide the wedge down tightly.

**SELLS EVERYWHERE FOR 35c**

Sent, postpaid, to Any Address for 35c