



# LOCKS & KEYS



Issue 28

The Newsletter for lock collectors

July 2005

## J. Legge & Co. Ltd

Joseph Legge OBE JP founded Legge Locks in Willenhall in 1881, at the age of twenty. His original works at 13 Clothier Street consisted of a couple of small shops (the Clothier Street works were possibly later used by Fred Shepherd), a few hand presses, a small outfit of tools, and scarcely any capital. They started to manufacture mortice locks, later adding a full range of cylinder, cabinet and rim locks to the range. The standards that were set in terms of quality products and good working conditions have been developed under the name J. Legge. In 1888 Mr Legge purchased the business of the late Joseph Collett & Sons, situated in Stafford Street Willenhall and surrounded by vacant plots of land, which Joseph Legge, with exemplary foresight, gradually acquired. Tools and patterns accumulated, and the range of products was widened to include locks for buildings, cabinet locks and locks for travelling cases. The firm set up its own foundries for brass and malleable iron, and, for those days, a good plating shop. By 1914, 250 people were being employed and the company's products were finding their way to ready markets in Australia, New Zealand, South Africa and India.

*(Continued on page 3)*

## Century Locks Ltd

When it is recognised that this company was founded in the year Napoleon abdicated, and that Wellington was created a Duke, the mind begins to appreciate its great age.

In 1814 - the year *before* the Battle of Waterloo - Humphrey and John Fox, joined forces to set up in business as locksmiths at Number 11 John Street, Willenhall!



The original premises consisted of two houses with a small workshop at the rear. One of the houses served as a Store Room and Office and it was adequate for the small amount of administrative and office work necessary in those days, as hard long hours at the bench were the recipe for success then. Working hours were from 6am till 8pm and lighting was by paraffin lamp and candles. When orders on hand demand it, often it became necessary to work on till 11pm with only a short break for quick refreshment at the "Ring O' Bells" opposite. However, the business prospered. A two-storey workshop was erected and the horse-drawn vehicles of the day were regularly delivering products to the whole of the Birmingham area.

*(Continued on page 4)*

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

"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.

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## Editor

This issue has no particular theme. It includes various items sent in over the last couple of years, but no actual articles or lock descriptions have been contributed. My resources are limited, and there are readers who know much more about locks than me, and have much more interesting collections.

Nearly everyone I have spoken to enjoys reading the newsletter, but only a few stalwarts contribute. Some items I find interesting, but cannot use because they will not reproduce adequately. However, if you can send me even a rough draft of, for example, a lock description, preferably with a picture on a plain white background (or the lighter the better), I can tidy any text you contribute, if necessary.

Shortly before he died, Jim Evans gave me a copy of his gazetteer of lock makers, and I have included the stories of two well-known British lockmakers. The lock industry has changed greatly in recent years, and now so many of the well-known names in both Britain and America are now either no more, or part of ASSA-Abloy.



Look around a locksmith convention, or the adverts in industry magazines, and it is apparent there are numerous electronic 'access control systems'. Nevertheless, we still rely mainly on mechanical locks, and even in Britain now, pin tumbler locks are gaining market share over lever types. Locks are a curiously static technology — one of man's oldest — and we rely on a metal version of the Egyptian lock!

In the past, locksmiths made by hand intricate wards. Today the general feeling is that wards are inferior and out-dated, but it struck me they still have a place. Some of the intricacies of master-keying pin-tumbler locks rely on wards. The cunning design of keyhole bullets allows one masterkey section to enter several keyways whose own keys will not enter other keyways.

Lock makers have suffered from unauthorised key blanks on the market, and have made various attempts to use intellectual property protection laws; but they have often had to design new keys with different keyway wards! Plus ça change — even though the first electric lock patent appeared in 1849.

I have some pressing domestic concerns at present, so am struggling to complete some articles I have started /contemplated (one being on electric locks), which is also why I don't do much collecting these days, or get into my workshop.

Please remember to renew subscriptions promptly.

## Art treasures from the Hanns Schell Museum

Art treasures indeed! This book is much more than a catalogue of the best locks and keys of the Hanns Schell Museum in Gratz, Austria. About the first half the book is an account of numerous types of locks, keys, door furniture, and a few associated items, in a well-produced book, with laminated boards, good paper, and excellently clearly photographed and printed pictures, many in colour (see p14 below). Some of the pictures in the book are also shown in colour on the museum's website.

Martina Pall has done an excellent job of publicising the treasures of the museum. She describes both technical and artistic details of the items in the collection. Although this book is mainly locks and keys, there are also a few small caskets and coffer included.

There are clearly drawn diagrams showing the working of a number of locks, and in some cases, details such as engraving, which cannot be clearly seen in photographs. Some small items are shown enlarged, so that the exquisite workmanship may be seen in detail. Picture captions concisely describe the item, with size. There is parallel text in German and English.

The book contains only a small selection of items. The museum has over 10,000 items, and this book shows 250. They have been well chosen, not only for their artistic and technical excellence, but also to show the variety of the museum's holdings.

Not only is this book a catalogue of a small part of the museum's collection; it is much more than that. The collection concentrates on central Europe, but it covers southern Asia east to China, and also Africa. Some items date to the early 20<sup>th</sup> century, but the collections ranges through two and a half millennia. This is, in effect, a history of Old World locks and keys.

There is a glossary, and a bibliography of 79 items. Most of the items are European books, many of which will still be accessible. Some are noted as being modern reprints. There are a few British and American items, but the book is not about American locks, and there are only a few British items included.

PALL, Martina. *Art treasures: keys locks treasure boxes and mounts from the Hanns Schell Collection*. 165p, illus. (mostly col.), 30 cm. Graz, Hanns Schell Collection, 2005. [[www.schell-collection.com](http://www.schell-collection.com)]

Richard Phillips

Price including airmail postage: Europe €43.75  
USA € 36. [museum@schell-collection.com](mailto:museum@schell-collection.com)

*(Continued from page 1)*

As a result of doing war work, the eyes of the manufacturers were opened to the increase of efficiency that could be obtained from the more extensive use of machinery. The whole trade was stimulated and, indeed, almost revolutionised. The older generation of locksmiths suffered hardship during the change-over in manufacturing methods, but the skill passed from the locksmith to the toolmaker; and Joseph Legge was a front-runner in the changes. From 1900, Mr Legge was ably assisted by Mr H Herman Chilton as a co-director; and after the 1939-45, war Mr Legge was joined in the business by three of his five sons. The company adopted a novel trademark. While on holiday in the Isle of Man, he found himself studying the famous symbol of three legs. Struck by the design he was determined to adopt it as a trademark, but it was not without the greatest difficulty that he secured permission. The sign of the three legs is still used today. And in the post-war period was a symbol of his three sons actively engaged in the business. In the early 1950s, they started to manufacture a cylinder pin tumbler lock. The development work was carried out by Bernard Perrins. *(C Terry 7-9-99)*

In the late 1960s or early 1970s they took over William Pinson & Son Ltd, of Holdfast Works, Cemetery Road, whose premises were adjacent to Legge's works. That gave them more space, but Legge did not continue with the Wm. Pinson range of HOLDFAST padlocks. In July 1988, Legge became part of the Newman Tonks Group PLC for £19.2 million. There they became part of the Locks and Security Division, and changed their name to NT LOCKS (Manufacturers of Legge and Erebus Locks). The Erebus Company had been a member of the Newman Tonks Group for some years. With the acquisition of Legge, the Erebus manufacturing facility at Lichfield Road, Wednesfield was closed, and the manufacture of a few items of the Erebus range moved to the Moat Street works in the late 1990's.

The Newman Tonks organisation had previously dabbled in lock manufacture when in 1975 they set up a lock making division in Birmingham; this was later transferred to N-T. (Oldham) Ltd Eden Works Honeywell Lane Oldham Lancs., (at Oldham in April 1975) but it never produced in any quantity mainly due to lack of expertise. It was closed in December 1976 when the lock making division was transferred back to Birmingham, but production never re-commenced. Newman Tonks then set up FLEET LOCK as a subsidiary of their Cartwright door closer division, in Straight Road Short Heath, where they manufacture cheap two-lever mortice locks. This manufacturing unit was later incorporated into the Erebus company when they were acquired and moved to a new site at Lichfield Road Wednesfield.

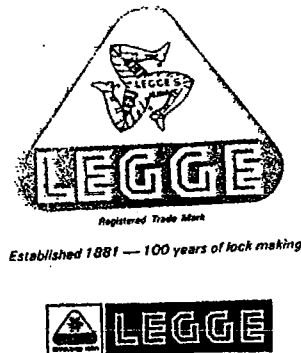
In 1989, Newman Tonks also acquired part of TESSA, a Spanish lock maker, and the USA-based Falcon Locks,

enabling them to sell a full range of locks to US customers. Falcon's contribution was particularly the Knob Set.

In June 1994, Newman Tonks sold its majority interest in NT Harloc, based in Kentucky USA. The 85% holding has been bought by TESSA Inc. the US arm of the big Spanish lock and security manufacturers, Herrajes TESSA in which NT also have a large stake. Harloc, based in Taylorsville, assembles, packages and sells locks and knobs made by TESSA, mainly into the residential building sector of the US and Canada. NT and TESSA have agreed that TESSA should now take control of the distribution of its own products into the North American residential hardware market, allowing NT to concentrate on the contract hardware market for commercial products. NT will keep its 33.3% holding in TESSA. *(Birmingham Post 15-6-94)*

*Nov. 1994 employed approx. 270 (per Quality Questionnaire to A Hough)*

*(Men of the Midlands-Mr Joseph Legge)*



*Triskele symbol adopted as a trademark for Legge locks*

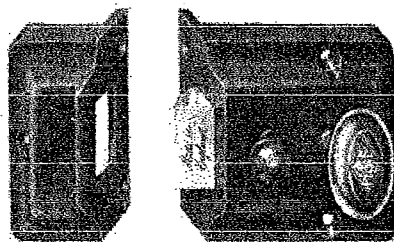
The Newman Tonks organisation was taken over by Ingersoll Rand in 1997, and on the 5<sup>th</sup> May 1998, NT Legge, which was part of Newman Tonks Group Ltd, became known as Ingersoll-Rand Architectural Hardware, a division of Ingersoll-Rand Architectural Hardware Group Ltd. Ingersoll-Rand is part of ASSA Abloy.

*(Letter 5 May 1998 from Ingersoll-Rand)*

*Jim Evans*

(Continued from page 1)

The business was already "old-established" - in fact 40 years old when the Crimean War occurred in 1854. This fact makes one realise how many vicissitudes of war and peace it has survived to become the source of livelihood of so many Willenhall people. The year 1880 saw the beginning of a new era when Humphrey Fox II joined the business. As the last decade of the nineteenth century approached the business was growing to such an extent, more commodious premises had become an urgent need. Thus, in the year 1890, the business was moved from the old John Street premises to a site that was formally an old moat, to form Moat Street Works.



### Cylinder latches

With the Boer War come and gone, 1906 witnessed the arrival of a founder's grandson into the business - Humphrey Fox III. Eight years later, the 100<sup>th</sup> birthday coincided with the outbreak of World War I in 1914. Young Humphrey Fox joined up the same year but in 1917 he received severe leg wounds and was invalided out of the army. His father died in that year. In 1920, two years after the war ended, Charles Morgan who was an uncle of Humphrey Fox III, entered the business. He became the first representative of the Morgan family to be actively concerned with the running and the development of the Company. Only a year later, in 1921, Charles Morgan's son Norman commenced work with the company, at the age of fifteen. By this time they had started to make cylinder pin tumbler locks, and were founder members of the British Cylinder Night Latch Association when it was set up in 1928.

Norman Morgan recalled when he started: the ancient machinery and archaic methods of those days - how lock cases were black-japanned hand-painted and dried in coal-fired stoves, taking ¾ hour to dry. By 1964 with more modern plant, components were sprayed and conveyed to an infrared drying oven taking only 10 minutes continuous oven time. It is a wonder how the company ever managed in those days.

### Modernisation progresses

An expansion programme initiated in 1936 saw the erection of modern factory workshops. The policy of modernisation was continued so that employees were housed in open, light airy workshops. In 1929 Reg Morgan, Charles' younger son, joined the company. He inaugurated a new side to the business when he formed R.

H Morgan to manufacture tools and produce pressings for the motor trade and to do die-sinking and make drop forging. Under Reg's control development went ahead. In 1940 a site of 9½ acres was purchased at Ashmore Lake. This purchase was originally made with the intention of moving the parent company, as Moat Street was becoming somewhat congested.

In 1955 the neighbouring company of Samuel Baker & Co., who made galvanised and brass padlocks, was purchased to provide additional space. The two factories were joined together to form a larger Century Works. So the lock-making company was never moved off the Moat Street site. Reg Morgan died in 1961 and in the following year Mr Humphrey Fox III died aged 81, and then on the 1<sup>st</sup> February 1963 Charles Morgan died in his 83rd year. Thus in a short span of three years the company had lost three directors. The board was reformed with the addition of Barrie Morgan the son of Reg., together with a number of non-family members. Between 1968 and 1978 the two company split, and the lockmakers changed their name from Humphrey & J Fox, to Century Locks.

Although only a relatively small lock and latch manufacturer, they had built a high reputation for quality. In October 1987 the Chairman and Managing Director Norman Morgan decided to retire at the age of 82, and sell the business. It was sold to Mr Barrie Bernstein (MD of kitchen makers Home Charm) and Gordon Fernley (former MD of Polycell). At the time, they pledged to expand the company and to increase its then 120 work force. Keith Whitehouse the son-in-law of Mr Morgan, remained as a director.

### Yale takes over

Less than three years later, in August 1990, the company was purchased by Yale and by November 1990 the Moat Street works had closed and production moved to the Yale works in Wood Street<sup>1</sup>.

[Yale is now part of ASSA Abloy.]

Jim Evans, and illustrations contributed by Trevor Dowson

<sup>1</sup>Kelly's Directory 1888

<sup>2</sup>A century and a half of progress 1814 -1964 published by the company.



Jim Evans

# The Brooking Collection:

Charles Brooking, creator of the Brooking Collection of architectural history at the University of Greenwich, Dartford Campus

**D**artford is the home of the Brooking Collection, one of the very few places in the country where people can come to research their restoration of a period building.

The Brooking Collection holds thousands of examples of original architectural features from large items such as doors, windows and sections of staircases to smaller things like door knobs and knockers and sample lengths of architrave and skirting mouldings. Some of the things in the collection are examples of fine craftsmanship or are particularly eye-catching in their design. Others come from more commonplace, cheaply built buildings. All are important in providing a record of the history of building in Britain. Every year it is visited by both the general public and professionals whose work it is to restore old buildings.

This large and unusual collection has been created single-handedly by Charles Brooking. Charles, now 46, began forming his collection of architectural features and details when he was just a schoolboy. By the time he was 12 he had already collected some of the items that can be seen in the collection today. It was from that age that he really began collecting in earnest, with the aim of establishing a museum, encouraged by one of his teachers who recognised that no one else was preserving this type of object.

## The 'garden shed period'

For the next 20 years Charles' ever growing collection continued to be housed in a series of sheds and containers in his parents' garden (fortunately a large one!). Architectural salvage yards are now a common sight, but in the 1960s and '70s they didn't exist — little value was attached to parts of old buildings. Charles has been credited with inventing the concept of architectural salvage. He was

certainly part of the movement to preserve our built heritage which has swelled in the last couple of decades. Everything in the Brooking Collection was destined for destruction, usually through building demolition.

## Permanent accommodation

In 1986 the University of Greenwich offered to house the Collection and transform it into a public museum on the University's Dartford Campus on Oakfield Lane. Today it is visited by a variety of people who wish to see examples of the craftsmanship and design of past years in order to guide their own restoration work. This ranges from members of the public who wish to return their Victorian or 1930s home to its original appearance, to the professional staff of English Heritage or the National Trust who are working on stately homes.

## Collecting

Charles Brooking now describes his occupation as 'architectural historian', but when I first met him at his parents' home, he still seemed more the enthusiastic collector. Like most of us, he had some good items cleaned and on display. The sheds were packed; there was more waiting to be cleaned and displayed. There were masses of non-fragile items in the garden.

Charles had a particular interest in early sliding sash windows, and had numerous pulleys and window catches. He also had locks, and made a study of the rolled profiles of rimlock cases as an aid to dating them<sup>1</sup>.

*Richard Phillips*

<sup>1</sup>*The Lock collectors newsletter*, 2(3), June 1976 pp. 17, 26.

## Bookshelf

This book page is a varied mix. There are old ironwork and furniture books; some on 19<sup>th</sup> century locks; and a few eccentricities.

MOXON, Joseph, b.1627: *Mechanick exercises* : or, The doctrine of handy-works, applied to the arts of smithing, joinery, carpentry, turning, bricklaying, to which is added, Mechanick dyalling, shewing how to draw a true sun-dial on any given plane, however scituated; only with the help of a straight ruler and a pair of compasses, and without any arithmetical calculation. With an introd., table of contents, and captions explaining the 26 plates by Benno M. Forman. Charles F. Montgomery, editor. *Praeger reprints on arts, crafts, and trades*. New York : Praeger, (1970). xxxvii, 352 p : illus ; 21 cm

Reprint of the 3<sup>rd</sup> edition originally published in 1703. The first edition appeared in 2 volumes, 1677-1680. Contents: Vol. 1. Smithing-Hinges, locks, keys, screws and nuts small and great-Jacks-Joinery-House-Carpentry - Turning. (*There are several modern editions of this interesting old classic. Ed.*)

GRAFTON, Carol Belanger: *Treasury of ironwork designs* : 469 examples from historical sources selected and arranged by Carol Belanger Grafton. *Dover pictorial archive series*. New York : Dover Publications, c1992. 0486271269; 0486271269 (pbk)

KÜHN, Fritz: *Wrought iron*; [translated by Charles B. Johnson]. London : Harrap, 1965. 120p : chiefly ill ; 30cm. 0245538003

Translation from the German

THORNTON, Peter, 1925-: *Authentic decor : the domestic interior, 1620-1920* London: Seven Dials, 2000. 408 p : ill. (some col.) ; 26 cm. 1841881090 (pbk)

Includes bibliographical references and index  
Originally published: London : Weidenfeld & Nicolson, 1984

GILBERT, Christopher, FL.1978 : *English vernacular furniture 1750-1900*. New Haven ; London : Yale University Press, 1991. viii, 294 p : ill ; 29 cm. 0300047622

Includes bibliography and index

DAY AND NEWELL (FIRM): *Important to bankers*. Bank robberies prevented by Newell's patent



parautoptic bank lock. ... : [reports and testimonials]. [London?] : A.C. Hobbs, proprietor, 1851. 24 p. ; 18 cm. Running title : Day and Newell's parautoptic bank lock . The lock was exhibited at the Great Exhibition in London in 1851 (United States no. 298)

*The controversy on English and American locks* : a reprint of the principal letters and articles which appeared on this subject during January, February, and March, 1879 / with a preface by Harry W. Chubb. London : Chubb and Son, 1879. 86p ; 21cm (8vo)

HAYTER, George Hayter Chubb, Baron, 1848-1946: *The House of Chubb, 1818-1918* / by Sir George Hayter Chubb and Walter Graham Churcher. London : H. Jenkins, 1919. 111 p : illus.

CHUBB, John, 1816-1872: *On the construction of locks and keys* . London : W. Clowes, [1850]. 36p : figs. (8vo). "Excerpt minutes of proceedings of the Institution of Civil Engineers, vol. IX, by permission of the council." With Appendix.

Chubb and Son's Lock and Safe Company: *Contemporary observations on security from the Chubb collectanea, 1818-1968*. Chubb and Son's Lock and Safe Company ; [edited by] Noel Currer-Briggs. London : [s.n.], [1970?]. 1v., unpagged

An eclectic collection of items; however, many are printed on dark coloured paper, and therefore difficult to read. Among the many curious items is a description of the lavish works party to celebrate the Silver Wedding of Sir George and Lady Chubb in 1896, which ended with a magic show by Herr A Blitz (one of the 13 imitators of the original Signor Blitz (died 1877)!)

GYSEL, Robert: *Opening padlocks, etc. by manipulation of hand picks*. Toledo, Ohio : The author, 1936. 6 leaves. (Magic tricks)

This item was part of the library of the British psychic investigator and friend of Houdini, Harry Price, 1881-1948. Price was aware of all the tricks used by fraudulent mediums, and the interchange between them and magicians. Most of his library went to London University.

BONNEAU, Alcide, 1836-: *Padlocks and girdles of chastity*. New York: Privately printed, 1928. 78p: ill. Translated by I. Liseux?. (Liseux, Isidore, 1835-1894)

The only known copy in a British library is held by: the British Library.

BEVAN, Sally: *The reclaimers*. London, Hodder & Stoughton, 2005. 224pp 202 x 242mm 100-200 colour photos. 18.99 0-340-89500-4 Lists of salvage yards in Britain.

LIPITCH, Michael: *The London antiques guide: street-by-street, style-by-style*. London, Thames & Hudson, 2005, 160pp 196 colour illustrations. 0-500-28540-3

BOOKER, Michael: *Collecting Colditz and its secrets: a unique pictorial record of life behind the walls*. London, Grub Street, 2005. 192pp 252 x 196mm 1-904943-08-X

VANDOME, Nick: *eBay in easy steps: uk edition*. Computer Step, 2005, Published in UK. 192pp 184 x 225mm 200 colour illustrations 10.99 1-84078-286-2 Another British book on eBay, to add to the many US books now available.

## Locks — an oddly static technology

Locks are an oddly static technology.

*A zealous Lock-Smith dyed of late,  
And did arrive at heaven gate,  
He stood without and would not knocke,  
Because he meant to picke the locke.*

This bit of doggerel is, maybe, four centuries old. It says a lot about locks and the way we relate to them. Ask most people what a lock means to them and they'll tell you, "Security." Yet which of us wants to own a lock that can't be picked, in a pinch?

The locksmith in the poem craves the reward of having cracked the very vault of Heaven. And we're reminded that locks are also metaphors for human ingenuity. After we think of security, our mind leaps next to the puzzle of opening the lock.

The first locks were made four millennia ago, in Chaldea (Mesopotamia). They were of wood. They also used a system of pins moved by a key — not all that different from modern locks. For four millennia, locks have been less a work of raw invention than of endless innovation.

The Greeks challenged human ingenuity with another system entirely. Do you remember Alexander the Great cutting the Gordian knot? Well, many Greeks devised knots that only they could tie. Then they simply lashed their doors shut. Of course Alexander showed what any

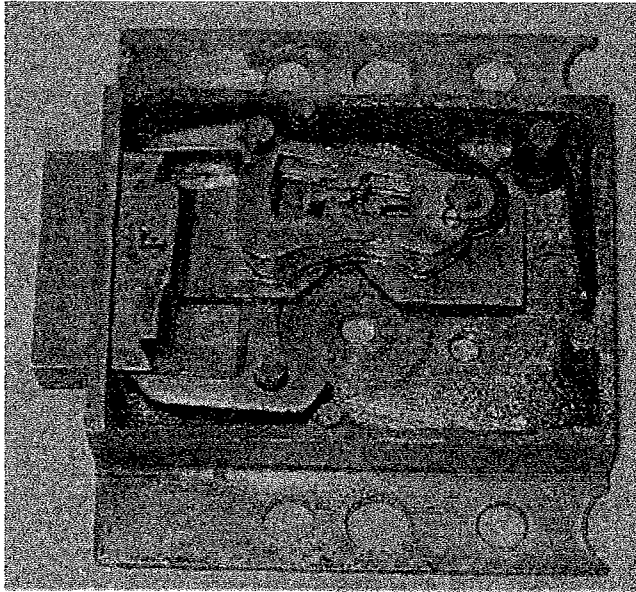
homeowner knows today. The locks on our doors only slow down criminals. They seldom keep out a really determined thief. Medieval locks were wonderfully ornate on the outside, but they stayed fairly simple on the inside — more status symbols for the wealthy than solid protection. The big shift in lock-making came after 1800. Once we began manufacturing with interchangeable parts, we took lock-making away from locksmiths and gave it to factories. Now anyone could afford a lock. The people who created the lock design that took full advantage of the new system of manufacturing were Linus Yale, Sr. and Linus Yale, Jr. By 1860 they'd perfected the convenient pin-cylinder lock. Soon after that, a would-be poet could write,

*You gave me the key to your heart, my love;  
Then why do you make me knock?  
"Oh, that was yesterday; Saints above,  
Last night I changed the lock!"*

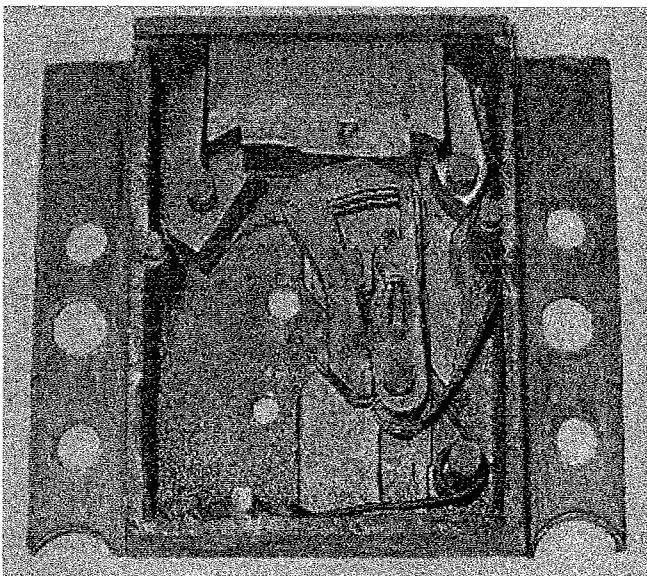
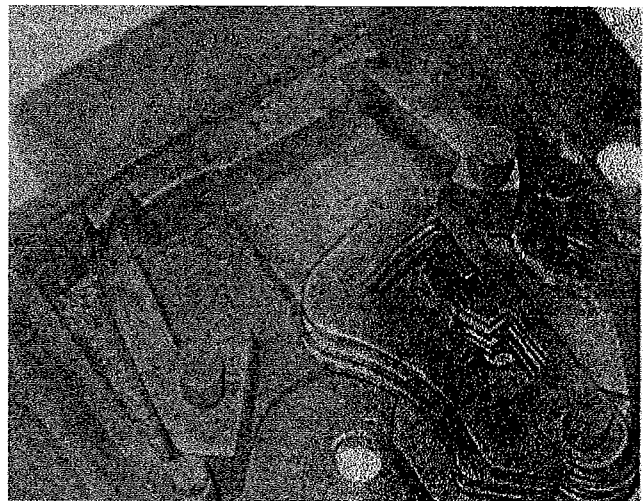
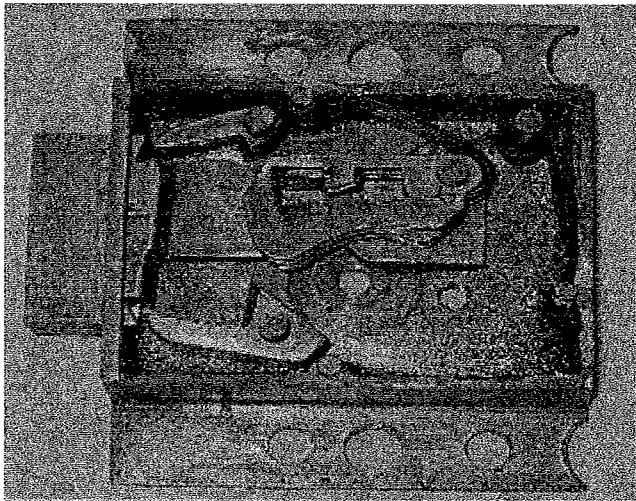
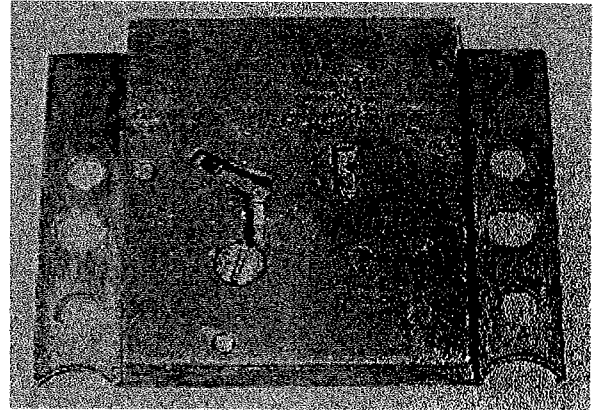
Of course the Yale lock, secure as it is, can be picked once you know how. Even so, many of the most important developments in mechanical lock design in recent years are still variants on the Yale lock. Now we threaten our four centuries old lock metaphor with entirely new devices. We've invented electric locks that we key with memorized numbers — or our palm print. The key question (pun intended) is, "Will the old mechanical lock outlast our generation?" It isn't just a simple device that's under assault. It is, in fact, one of our most powerful mechanical icons.

Edited from *John Lienhard, Houston's College of Engineering*

## Timlins-Willis safe lock

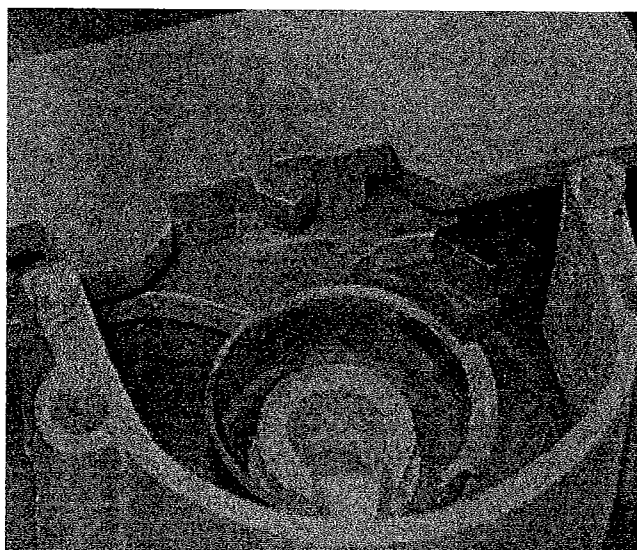
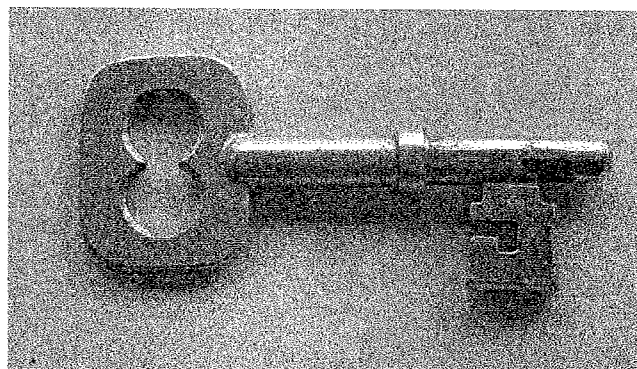
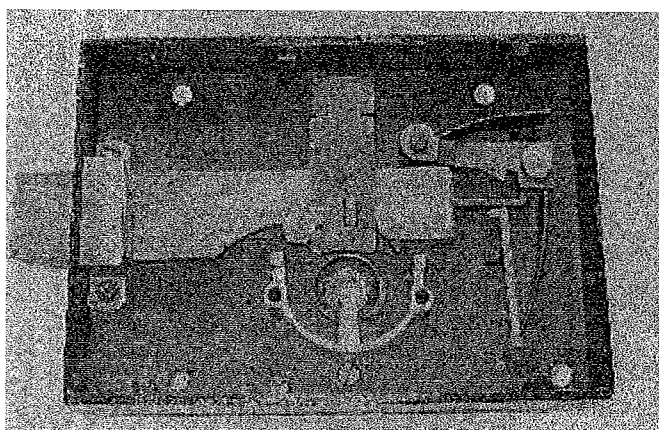


*For accompanying text, see page 11.*

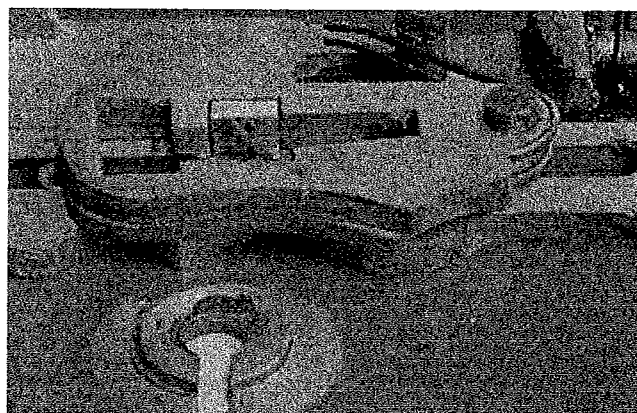
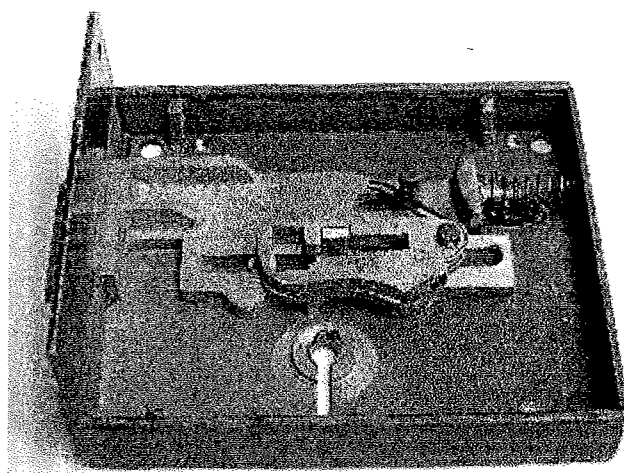




## Old prison locks



*This cell lock is a version of the 'Pentonville' cell lock mentioned in issue 19. This one is different from the one in the Editor's collection, but neither is marked. Both James Gibbons, and Charles Smith (Birmingham) made versions of this lock.*



*Another unmarked cell lock, possibly Australian. This is a deadlocking latch, with no indicator. It is of sturdy construction, although it has only 2 levers.  
All these lock pictures supplied by Ian Webb.*

## Hungover

Up through Gwydyr Forest, several miles above the River Conway, along a narrow winding road with grass growing in the middle and the vestiges of ancient tarmac almost disappeared, to ½ mile east of Llyn Geirionydd, is a place almost forgotten by the passage of time. 'Llywelyn's old church' was built in the twelfth century by Llywelyn ap Iorwerth and dedicated to St Rhychwyn, before he built nearby Trefrew church in 1230.

The old church was originally a small rectangular building, approximately a double square in plan. Later it was lengthened by a chancel, and widened by a north aisle, so is again almost square. The south aisle is built of coursed and roughly dressed local stone. The north is of long slabs, some very large, coursed and dressed. The inside of the walls is limewashed. Originally the floor was bare earth, but was later paved with slate flags, many being old grave-slabs.

The church is entered by a door 3 feet wide near the western end of the south wall. This is a plain round-headed opening of twelfth century type, though the arch might have been reset. At its inner end is a wooden door-frame also with a round head, containing a 17th century oak door of post-and-panel type, the panels bevelled on either side of a central vertical ridge.

Thus far, the church is little different from many old churches. What is exceptional about this door is the manner in which it is hung. It does not have hinges: it is harr-hung.

### Earliest doors

Doors of solid material to fill a doorway first appeared in Babylonia and Egypt. (The first 'door' was merely a curtain of cloth or hide.) For monumental buildings — such as temples and palaces, there were doors of stone or wood. Wood was at first clad in bronze, soon followed by all-metal doors of cast or beaten bronze.

All these doors were mounted on pivots, extending from top and bottom of the hanging stile. The 'horns' of a new modern door are a vestigial survival of the old method of hanging. Modern doors still have 'horns' because they protect the door in handling, before installation. Until well after Roman times, the 'horns' on the ends of the hanging stile were retained, rounded, and clad at the bottom (and sometimes also at the top), in metal. Originally this was bronze, later iron was used.

These pin pivots worked in a socket in the doorstep (threshold), and a deeper socket in the head of the doorway (lintel). Lubrication was generally no more than pouring water into the bottom socket. Many doorways had no wooden lining, the pins of the door fitting into sockets directly in the stone thresholds and lintels. The moulding of the doorway had to allow the door to be lifted an amount equal to the length of the

bottom pin, to effect fitting or removal of the door.

Though prone to wear, the very simple pin pivot was widely used, throughout the ancient world, and for a long time later. The 24 foot bronze double doors of the Roman Pantheon are still in situ.

### Khorsabad

Another notable example of the pin pivot is a pair of doors from Khorsabad, in modern Iraq. They were made of vertical tree trunks like a wild west fort, with horizontal braces on the inside. Then the outer faces were clad in beaten bronze sheets decorated in bas relief. Khorsabad was built between 717 and 707 BC by the Assyrian king Sargon II. The king was killed in 705 BC, and the city was quickly abandoned.

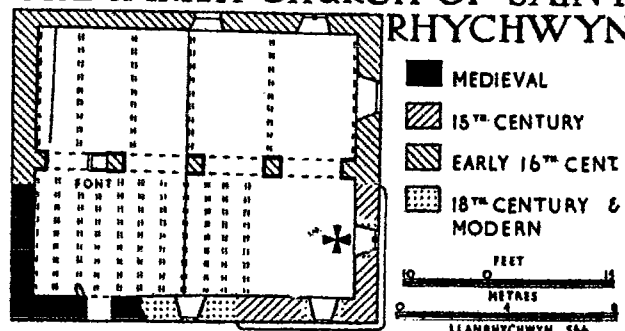
Excavations began in 1843, and the great bronze-clad doors to the temple compound were found. They soon disintegrated, and archaeologists had to reconstruct the bronze jigsaw puzzle without a picture to guide them. The result can be seen in the Louvre.

### The pintle hinge

The west began to change to a form of pin hinge known in full as a pintle hinge. Two L shaped pieces of iron were driven into the doorway; their outer ends forming a large, short pin. An iron strap or bar with one end formed into a circle was nailed to the inside face of the door near the top and bottom. The end of the strap was dropped onto the pin, allowing the door to pivot. Many heavy doors from medieval times onwards thus hung are still in use.

Later still, hinges consisting of 2 leaves joined by a pin were invented. Until the early eighteenth century, such hinges were always surface mounted. We still use some surface hinges, such as tee hinges for wooden garage doors. Mostly, however, the butt hinge has superseded surface types.

## THE PARISH CHURCH OF SAINT RHYCHWYN



Although the present door at St Rhychwyn is not original, (it is a 17th century replacement), it clearly copies the original method of hanging. The door pivot is carried internally at the top in a chamfered wooden flange (instead of directly into the stone lintel). A stone projecting from the wall at floor level to the west of the opening serves as a door-stop. The name 'harr-hung'

*(Continued from page 10)*

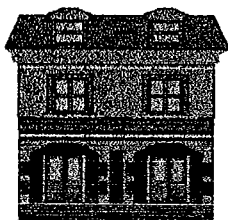
has dropped out of use nowadays, which leads to confusion with the later type of pintle, both being now commonly called a pin hinge.

St Rhychwyn church door is a remarkable survival, being possibly the only known old door still harr-hung. There are, however, several early medieval chests surviving with this type of pin hinge. Several Victorian gothic-revival buildings have some principal doors mounted on metal pin-pivots, and some large wardrobe doors were also hung on pin-pivots.

Incidentally, if this method of mounting a door seems old-fashioned, have you looked at how most safe doors are mounted?

*Richard Phillips (Since this was written in 1994, the road has been re-surfaced and the grass covered! Knowledgeable architectural historians are unaware of any other old harr-hung doors in Britain: does any reader of a surviving old door?)*

## Places of interest



There are many museums in the Languedoc, including more than 30 in the Hérault district. Opening seasons and times vary, as do entry prices. Note that reductions are available if you obtain a Passe-Musées from a tourist office. You can also obtain a guide to museums, galleries and chateaux at the tourist office, but a few of the main local museums are:

### Pézenas

Known as the Versailles of the Languedoc, Pézenas grew wealthy through its 13th century cloth fairs. As a result, there are many fine old buildings to visit — fabulous private chateaux, old churches, etc. A spot worth seeing is the ghetto formed by Rue Juiverie and Rue des Litanies — unchanged since the 14th century. Pézenas also has a big, bustling Saturday morning market.

**L'Art du Menuisier** (Art of Carpentry) at Pézenas displaying local doors and door furniture from the 16th to the 20th centuries. Open every day except Monday morning, from May to November; admission free.

SARL IVORRA M. IVORRA Serge 17 rue de Montmorency 34120 Pézenas

## Timlins-Willis safe lock (see pictures on p.8)

This cast brass safe lock is marked TIMLIN'S PAT 4940 12-21 WILLIS & Co AGENTS.

It probably comes from Australia, which is where it was found, and presumably dates to the inter-war period.

The interesting feature of this lock is that it has a modified version of the 'protector' pivoting bolt-stump. In this lock, there are two 'wings' under the bolt, so instead of one pivoting member to block movement of the bolt, here there are two.

All the 6 levers have a false notch, which permit the bolt to be pulled (or pushed) back (the levers then cannot be raised by a pick). When the bolt stump is moved back, the 2 hooks are braced against the sides of the lockcase and pivot inwards behind the back of the bolt, so that it is supported from both sides. This protection operates against either picking or forcible end pressure. In the safe, end pressure would be difficult to apply, as the lock is mounted vertically down and the boltwork moves sideways.

The illustrations show the bolt fully thrown, fully withdrawn, and withdrawing. There is also a picture showing the bolt stump engaged in the false notches, with the protector hooks blocking the bolt. The protector bolt stump is supported by a coiled wire spring, visible at the back of the lock. The hooks will not disengage until end-pressure on the bolt is removed, and a rather stronger spring is needed to restore this mechanism than is used in the original invention by Hobbs.

Pictures supplied by *Ian Webb* in Australia. I have no further information about either Timlins or Willis, but the lock is probably Australian.

## 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.



5] Trevor Dowson would like any information or trade catalogues on the safemakers George Withers, Samuel Withers, and Thomas Withers, who had separate businesses in West Bromwich. Also the safemaker Bash & Co, in business in Glasgow c.1874 - 1911.



## For Sale / Wanted

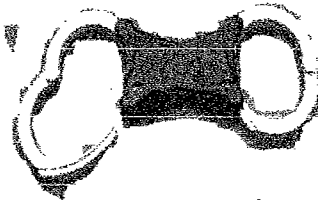
### Hiatt Speedcuffs

These are one of Hiatt's current Pccrlcsc-type cuffs, as used by many British police forces - £25 (inc. post).

The SPEEDCUFF is a purpose designed package comprising an integral rigid steel handcuff and

an ergonomic plastic grip. (GB registered design No. 2034362). Using pressure sensitive areas, it can be a significant aid to gaining control. Speedcuff includes the following:

- New, improved, 3 independently floating locking bars, with 6 teeth each bar.
- Provides extra locking positions with perimeter sizes the widest in the industry.



- 25 locking positions
- Perimeter, minimum 5 3/4" 146mm maximum 9 1/4" 235mm
- Shackles can be backloaded for speedcuffing (an exclusive Hiatt feature).
- 400gm 14oz
- Heavy duty rivets.
- Fast, smooth, positive swing through action.
- Exceed all published test standards.

Speedcuff is THE British arrest handcuff. (NB Hiatt do not supply this product to North America.)

Hiatt also supply various pouches for this model, and a handcuffing training manual.

Also interested in buying UK and US safe plates, have English ones to swap.

Trevor Dowson 17 Landseer Drive, Gleadless Valley Sheffield Yorkshire S14 1BS UK



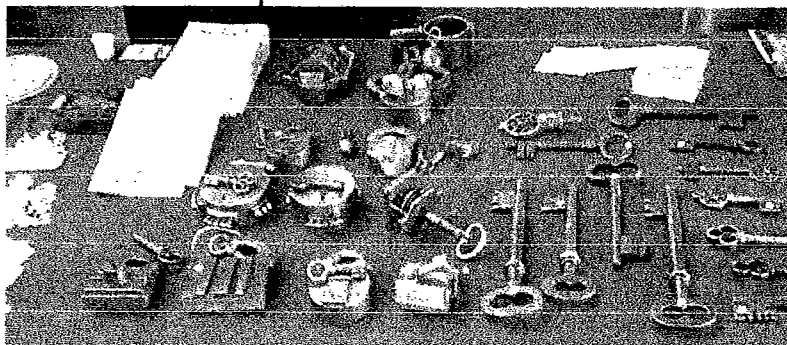
**Old safes:** Old victorian-type safes with keys - various sizes - quite heavy - no insurance rating - items in good condition, **£25 each** to clear - collection only at this price! There are also some more modern safes in stock, which could be delivered.

Collecting in person, all safe are on pallets, we can fork lift the safe onto van, lorry, trailer, etc.

Viewing is by appointment only: *Pam and Roy*. ☎0776 2031455;

Email [dreamclassiccars@aol.com](mailto:dreamclassiccars@aol.com)

Dream Classic Cars, Lawford, Manningtree, Essex.



**A**t the MLA northern exhibition this spring in Manchester, there were again several dealers. There were some modern locks, a large selection of safe keys, high quality cabinet locks, and safe locks of several types. There were also safe plates, and some books.

Although most of the dealer items were 19-20th century, there were some older locks and keys.

Peter Friedhelm von Knorre had some much older locks and keys (pictured), together with some out-of-print books. Peter's stock comes largely from Europe and further east.

He also had several individual, unique, hand-made modern locks. These are 'puzzle locks', as, in addition to having the key, it is also necessary to manipulate parts of the lock in a certain sequence. Prices for each of these unique locks for serious collectors are around £200!

Peter Friedhelm von Knorre ☎004901 71 5460901 mobile.

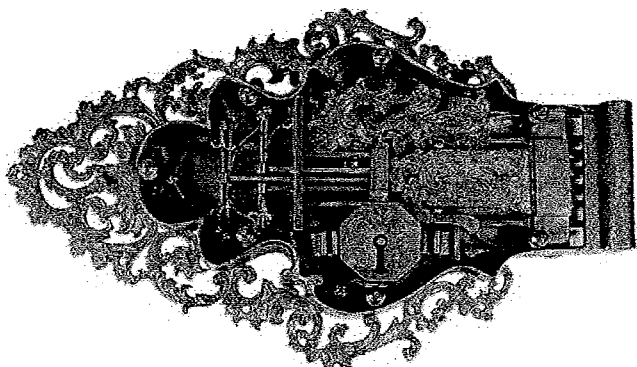
Email: [peterschnurzel@hotmail.com](mailto:peterschnurzel@hotmail.com)

# Murphy's Laws of Locksmithing

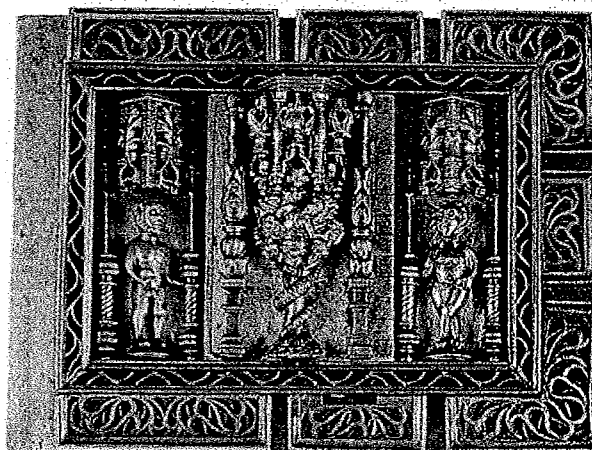
- A broken lock will always work when demonstrated for the locksmith.
  - The lock will stop working the minute the locksmith leaves.
  - The only thing you didn't check for a malfunction, will be the source of the problem, but you won't find it until you are called back.
- Whatever the customer has told you to prepare for the service call will be wrong.
- A dropped part will always roll to the exact geographic center of the largest available object for it to roll under.
- The probability of the loss or breakage of any part is directly proportional to the difficulty of getting a replacement part.
  - Irreplaceable parts will always break or be lost, and at the worst possible time.
  - Replaceable parts will only become available after an important deadline has passed.
- Parts that are difficult to install will freely fall out on their own.
- Parts that go in easily will be extremely hard to remove, and removal will be necessary to accomplish the needed repair.
- The part you will need will be the irreplaceable part you threw away last week because there are no more locks of that type around
- The number of customers that visit your shop is inversely proportional to the number of employees you have to wait on them.
  - When your entire staff is available no one will come.
  - When you are there alone, everyone will come and they will be impatient.
- The probability of an auto lockout varies directly with the intensity of the rain.
- The length of time it take to open any vehicle varies directly with the intensity of the rain.
- The length of time it take to open a vehicle or pick a lock varies directly with the number of on-lookers making fun of how long it takes you.
- The length of time it take to open a vehicle or pick a lock varies directly with the number of television and movie characters your customer claims can do it in only a few seconds. {There is a dispute as to whether it actually takes longer or whether time just seems to drag when certain customers are around}
- The number of witnesses available is inversely proportional to the skill you demonstrate.
  - There will never be anyone around to see you do something brilliant
  - When you really screw up, you will get network coverage with a 40 share.
- The probability of having someone closing a safe and spinning the dial while you have the back of the lock off will vary directly with the square of the number of people you tell not to touch the safe while you get something out of the truck.
  - The probability of having someone close a safe and spinning the dial while you have the back of the lock off will vary directly with the square of the number of re-lockers that will be tripped.
  - The more elaborate the precautions you take the more likely they are to close a safe and spin the dial while you have the back of the lock off. {Nothing is fool-proof because fools are too ingenious}

John F Bousquet (*owner of JFB Desktop Publishing*) wrote this in 1996, and it has since been reprinted in several locksmithing magazines. It runs to several pages, so will be continued in the next issue. Thanks to Richard Hopkins for sending me this.

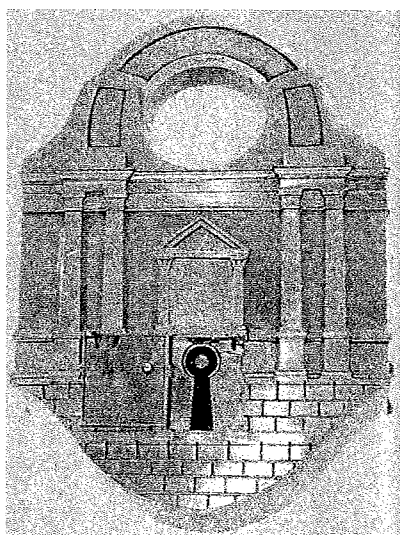
# Pictures from the Hanns Schell Museum



*Large masterpiece, Rococo*



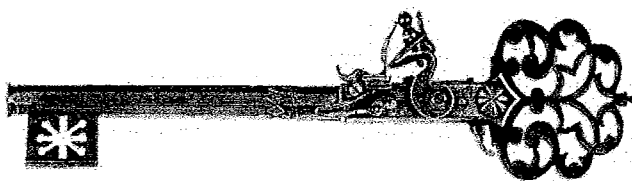
*Chest-lock, steel-cut, Gothic, French*



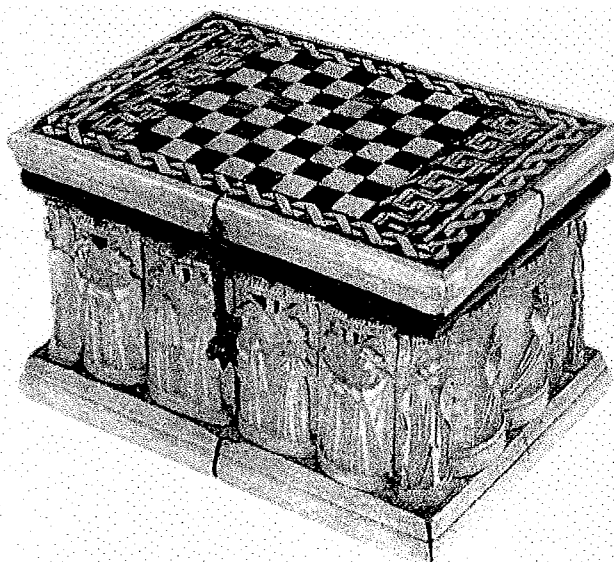
*Masterpiece, padlock, iron and steel, ca. 1810*



*Lock plate, escutcheon, 17 century*



*Pistol-key, 17. century*



*Coffer, wood with ivory panelling. Ascribed to Embriachi-workshop, Italy 16. century*

## STOP PRESS!

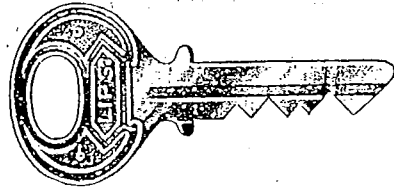
### 2005 European collectors' meeting Graz September (see March issue #27 p12).

With 60 people already coming, the first hotel is booked up. We have another hotel beside the first one. Here we have reserved 20 rooms for the collectors' meeting. The name of the new hotel: "Zur Steirerstub'n", Lendplatz 8, 8020 Graz.

☎ 0043 316 716855. Fax: 0043 316 716855.

email: [office@pension-graz.at](mailto:office@pension-graz.at) [www.pension-graz.at](http://www.pension-graz.at)  
Prices: doubleroom €35 each person including breakfast; singleroom: €50 including breakfast.

# How many ways can a 'solid brass padlock' be made? Let me count the ways ...



Section No. 818/2

Lips catalogue of  
1934 (right)  
Yale catalogue 1961  
(bottom)

Solid Drop Forged Gunmetal Padlocks.  
Internal Parts Rust Proof. Snaplocking.  
Nickel Plated Steel or Brass Spring  
Shackles.

**SIZES**

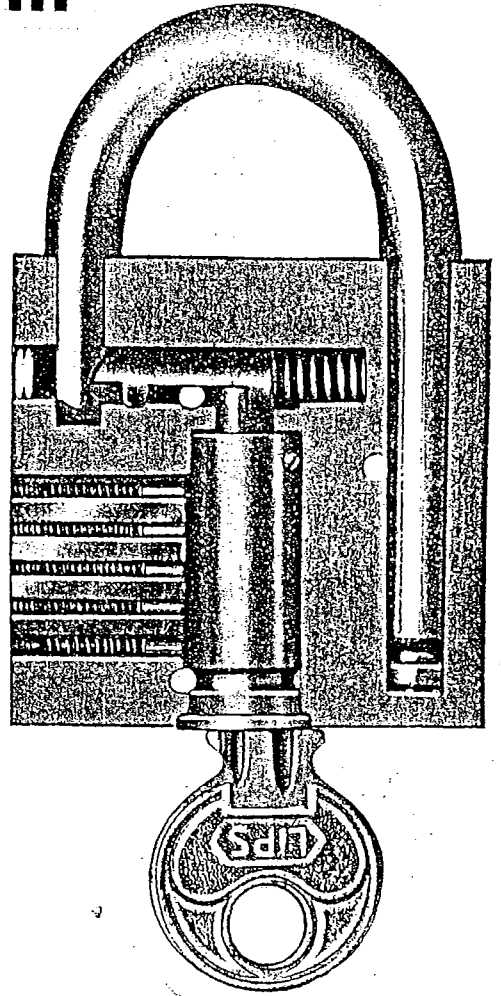
No.	Width	Shackle (dia.)	Weight
909	1 1/2"	1/2" full	8 1/2 ozs.
910	2"	5/8" "	13 1/2 "
911	2 1/2"	3/4" "	16 "
912	3"	7/8" "	20 1/2 "
913	3"	"	22 "

NOTE.—Nos. 909-913 can be Masterkeyed.  
No. 910 can be Masterkeyed in conjunction  
with Nos. 1702 to 1707 and Nos 996 to  
999.

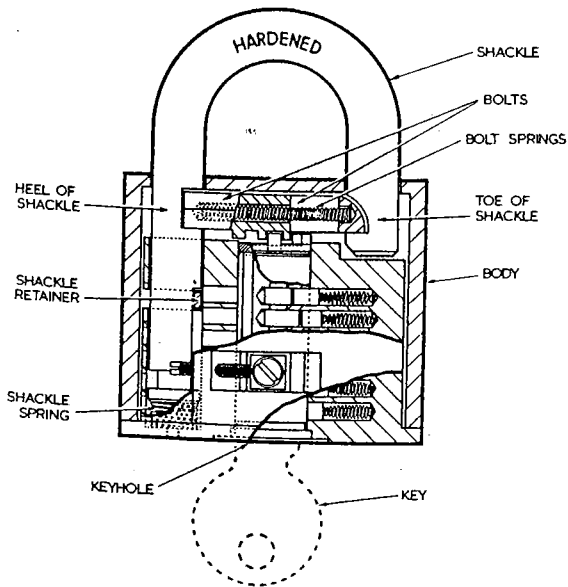
Nos. 911 and 912 can be Masterkeyed in  
conjunction with all Lips Standard  
Cylinder Door Locks

No. 913 has separate keyholes for Master  
and Service Keys and is suitable for Dock  
and Railway work, as the number of differs  
which can pass one Master Key is  
unlimited.

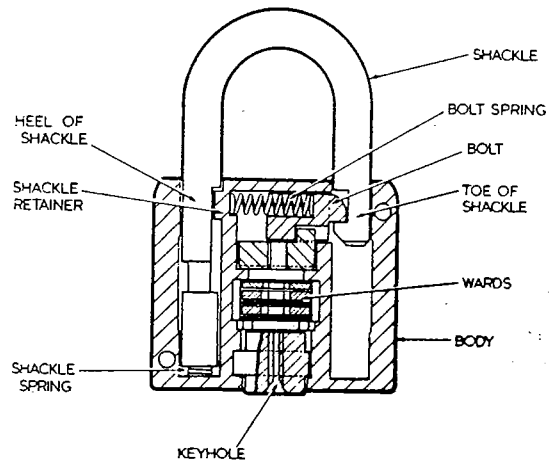
All the above are supplied with Two Keys  
each, machined from Argentan Metal.



Section No. 910.



CYLINDER PADLOCK



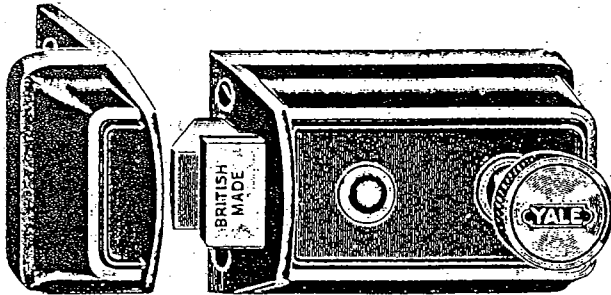
WARDER PADLOCK

YALE

BRITISH  
MADE

## CYLINDER RIM NIGHTLATCHES

DRAWN  
HALF  
SIZE



### No. 44 Deadlatch, Automatic Type

Case, 3½ x 2¾ x 1¼ in.

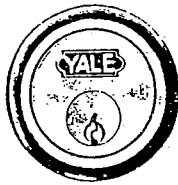
Cylinder No, 1109. Five pin-tumblers.

Keys, three, List No. 8; changes, practically unlimited.

Backset, 2¾ in.

For Doors, 1 to 3 in. thick, either right or left hand.

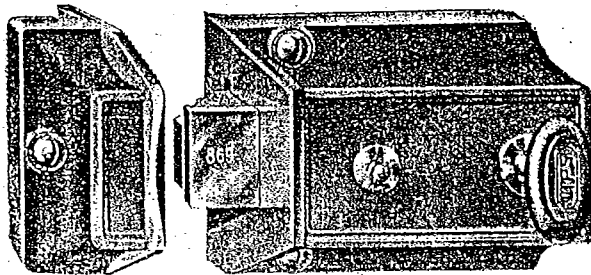
Operation: From outside by key, from inside by knob. Bolt may be held back by stop. The latchbolt has a ½ in. projection, but when door is closed it is automatically thrown forward an additional ¾ in. into a deadlocked position. The slide remains retracted when door is closed. Bolt can always be retracted by key or knob.



No.	Case	Strike	Bolt	Cylinder and Knobs
44	Iron, Brass Colour Finish	Staple	Brass	Brass, Polished
44 RB	" "	Striking Plate	" "	" "
44 C	Iron, Antique Copper Finish	Staple	Bronze	Bronze "
44 CRB	" "	Striking Plate	" "	" "

Master-keyed if so desired. Packed: One in a box, complete with screws; weight, each 1½ lbs.

### No. 869.



As No. 796, but with additional safety device to prevent latchbolt from being forced back from outside. The latchbolt in fact automatically becomes a deadbolt when the door is closed. Reversible. Bolt Throw 1/8".

Lock Case 2½" x 3½" x 1¾". Keyhole distance 2¾".

Weight complete about 2 lbs. Other details as No. 796.

No. 869A, Electro bronze finish. No. 869B, Solid gunmetal.

All the above can be master-keyed and are supplied with 3 KEYS each, machined from Argentan metal.

1

Until the 1930's, most ordinary British houses had a warded rimlock on the front door. Some were latches only, some were 2-bolt locks; and a good number were deadlocking latches. Pin tumbler cylinder latches began to appear before the Great War, but only began to take a major market share as the 1930's speculative housing boom burgeoned. Even then, some diy books still showed how to fit warded latches. Yet

the lock industry missed a chance. Yale (top), Lips (bottom), and other makers, offered cylinder rim deadlocks and deadlatches at least from the 1920's; but with little promotion, these types were largely ignored!

I also have an inter-war "Yale No. 1" cylinder rimlatch with key-locking interior handle, which must be rather uncommon. Promotion of 'improved' rimlatches only really began in the 1960's.