



Issue 9

The Newsletter for lock collectors

July 1999

Still struggling...

or personal reasons this issue has to be completed and mailed rather promptly, and with it the renewal notices. Please do not delay and forget these, even though for some of you summer holidays will be more on your minds.

The *Newsletter* continues to be well under the economic minimum number of subscribers. Some readers tell me they think it is worthwhile. Others simply don't renew their subscriptions. That is a sort of comment, but the least helpful one. It doesn't tell me what you don't like, and what you would like.

I am aware of about double the number of persons interested in collecting locks than subscribe. Many of you have customers who are interested in rescuing or collecting, or know other collectors. Will you persuade them to subscibe?

I would like to include more technical information about locks, but my resources are limited. Most of you will have a favourite lock you could tell us about, for example. (I can help with writing.) More book and periodical references could be included, if desired. This newletter is now the only European one devoted to lock collecting, so let's make the most of it.

Time to renew your subscription for the coming year! Remember, "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 Word2, Works3, Write, or saved as .rtf can be used.

In This Issue

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Cornhill robbery

J ust occasionally a major crime catches the public interest. Although there was a record amount stolen, the Heathrow bullion robbery did not. There was terrifying violence offered to the guards.

The great train robbery of 1963 caught the public imagination for its level of detailed planning, and record £2½M haul; the public soon forgot that postal workers were threatened. The train driver was so seriously assaulted that he never worked again. He lived beyond a year and a day, however, so his early death was not, legally, attributable to a murderous assault. (Most of the thirty-man gang were soon caught, though several later escaped.) The first "great train robbery", in 1863, was probably the first British crime to show detailed, long-term planning - but that is another story.

City safe-breakings

The Cornhill jewel robbery shocked the nation in 1865. (Legally, it was actually a burglary, but like contemporary journalists, we won't let the facts get in the way of a good story.) It was the climax of a series of safebreakings in the City of London. The amounts stolen already had been £4,000, £10,000, £1,000. Mr Walker, a jeweller, of Cornhill, lost £6,000. The values of these thefts are staggering, and difficult to appreciate today. The working man's wage was about 17/- a week (£1 = 20/-). Of course the property stolen was worth more to the

continued on p.2

Edited & Published by Richard Phillips "Merlewood", The Loan, West Linton Peebleshire, UK EH46 7HE

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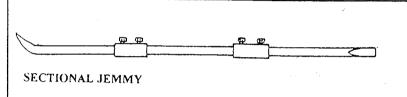
Cornhill robbery(cont from p.1)

owner than to the thief, who did well to obtain 20% of the true value.

Mr Walker had not left his stock unprotected. His shop was in a busy thoroughfare near St Paul's cathedral, and he had a room lined with sheet iron. There was the most modern form of artificial lighting, gaslight, in the room all night, with holes in the shutters for patrolling constables to look in - a mirror assisting viewing all sides of the safe therein. In this room was a Milner List 3 safe. This was Milner's Quadruple Patent (1840, 1854, 1855, and 1859) Violence, robbery and Fraud-resisting Safe, strongly recommended for Cash and Valuables. Doors half-inch, Bodies quarter-inch thick, wrought iron, very strongly constructed, lined throughout with Milner's unequalled double Fire-resisting Chambers.

Merchants began to panic at this theft, and the chatter-

ing classes chattered. One writer observed that 'the enemy now applies the principles of war to the acquisition of gold and jewels'.



The Cornhill jewel robbery

The thieves had entered the building by a side door on Saturday 4th February, and locked themselves into an upstairs room, until after the close of business. Then they cut a hole in a first floor office's floor, to drop into a tailor's shop next to the jeweller. They tried to break through the wall here, but were defeated by the iron sheet lining the strongroom. Then they descended to the tailor's basement, and cut up through the floor near the safe. They were able to hide behind a partition across part of this room. The burglars attacked the edge of the safe door with wedges of increasing size. and then gained enough space to prise open the door with several crowbars. The burglars left the scene by retracing their steps, to the street door. There they removed the rimlock from the inside, and slipped out into the night.

Caught!

Rewards were already on offer from the previous burglaries; to these was added another of £1000! In the event, however, the burglars' downfall was jealousy. Dissatisfied with the share-out, a woman betrayed her man. He implicated others, and after a couple of well-planned raids in the 'rookeries' of east London, the police charged eleven persons, including several wives, with burglary and receiving. The leader of the gang was

sentenced to 14 years, with others also receiving long prison terms. There was great public interest in the trial, and great relief at its outcome.

Mr Walker, however, was angry that his much-vaunted safe had, apparently, proved so easy to open. Mr Walker, on the strength of the thiefproof promises made to him, had paid £40 for his safe. He sued Messrs Milner.

Walker vs Milner, QB1, before the Lord Chief Justice

Such a case would inevitably have aroused public interest following the burglaries of 1855. But Mr Walker called as his chief witness, an expert witness with considerable relevant experience. Brought from Millbank Penitentiary and freshly scrubbed for the occasion

would come one
Thomas Caseley.
Caseley was the
leader of the gang
which committed the
Cornhill Robbery,
and several other

notorious and less well-known burglaries.

Thomas Caseley was a good-looking and personable young man, who had made a strong favourable impression on everyone who encountered him, from his own first court appearance. He was self-assured, and experienced in dramatic presentations. He frequently took part in a Judge and Jury Club - then a popular sort of (frequently drunken) debating society. He was well known as Counsellor Kelly.

The case opened in February 1856 in the Queen's Bench, before the Lord Chief Justice, with both sides having four counsel³. The broken safe itself stood in the middle of the court.

Caseley wore prison uniform (with a good conduct badge.) He description of the burglary at times caused laughter in the court, and the judge observed it was a pity he had not made better use of his abilities. Caseley gave a detailed description of the entry, hiding from the police patrols when the look-out gave warning, and then the safe-breaking.

Citizens and Aldermen

They made a test with a wedge, and it stayed in the edge of the door. They knew then, it was only a matter of time. Caseley described previous experiments on Milner safes, some bought legally for the purpose. They

continued on p.11

Universal keys

ock and key collectors are always looking for rare, unusual and individual, or unique specimens to possess, polish, display or otherwise cherish.

In the real world however, people do not always appreciate the special qualities of locks and keys, so have produced a variety of devices to remove the obstructions.

This modern high speed age has brought a need to open doors rapidly and some of the equipment available for this purpose may not be as familiar as the picks, skeleton keys, and shims that are well known to collectors and which require a degree of knowledge and digital dexterity to use successfully.

The principle behind most of the tools used to open the locks is leverage which may be applied in many ways. Even the humble garden spade has often been used in burglary to force open doors.

Crowbars

Historically, the crowbar, case-opener or jemmy is the best known tool for forcible entry. This requires relatively little skill and is readily available.

Versions were produced for criminals, often by craftsmen in the Birmingham area, that came apart into sections for convenient carrying at night. Some were over three feet long and were given names such as Lord Mayor (the longest) and Alderman or Councillor (for slightly shorter ones).

They were used for door forcing and peeling the back off safes, the chisel shaped end being able to enter small gaps and the bend near the end providing a fulcrum for the leverage.

Padlock jemmy

In order to open padlocks a variant of the jemmy was made with a conical swelling on the shaft. This is forced into the hasp of the padlock and, again, leverage or hammer blows to the other end cause the lock to rupture.

The design of these basic tools remained unchanged for many years but all good things come to an end. Improvements have been made to the shape, and stronger, more high-tech materials introduced to improve reliability, as the tools are now required for legitimate purposes. Fire services, special police units, customs and excise and military units often find a need to get through a door in a hurry and they now have

quite a range from which to choose.

Starting with the crudest device, the sledgehammer is often used where subtlety is not needed. This also has a psychological effect on persons in the premises being opened but may not be as rapid as the next device.

Here we go back to the Middle Ages and adapt a battering ram to modern conditions.

One and two man versions are produced with grips and handles designed to reduce shock to the wrist of the operator, heads that deliver maximum impact and even can be electrically non-conductive.

A typical example is about 30 inches long, weighs 35 pounds, requires only 24 inches of backswing and will impact the door with over 14,000 ftlb. of kinetic force.

They are often to be seen in television police documentaries. Doors open rapidly when this technique is applied.

Modern versions of the jemmy come with refinements of design to improve efficiency.

The Halligan (often also called Hooligan) tool comes in a series of lengths from 30 to 42 inches and weighs from 10 to 12 pounds. The ends of the tool are forged from special steel, treated for maximum strength and are fitted to a one inch knurled bar.

One end is a wedge shaped claw while the other end has a broad wedge at right angles to a curving pick. Hammer blows can be applied if needed to the flat ends of the head.

The claw is sharpened for ease of entry and the arms of the claw fit over padlock hasps etc. and can also be used as a stop-cock key. The spike will enter padlock shackles and is also used to strike off locks on the inside of doors when the cylinder has been ripped out by other means.

The Pry-Axe is also popular as this axe has a handle that can be repositioned to give increased leverage and also has a spike and claw.

Cylinder ripping

Police special units

often need to go

through doors in a

hurry - they now have

have quite a range of

equipment available

The claw of a jemmy may be designed to fit behind the protruding rim of a cylinder.

Leverage will then rip the cylinder out of the door. The spike of a Halligan is put into the opening and hit with a hammer to knock off the remains of the mechanism inside the door.

Another tool to do the same job is the K tool. This slides and is probably hammered over the rim of a

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Universal keys (cont from

p.3)

cylinder. A crowbar or the bill of a Halligan fit into a socket on the tool and leverage is again applied with the same result.

For padlocks it is easy to understand the benefits of the close shackle when some of the equipment devised to overcome "ordinary" padlocks has been explained.

HPC produced the Padlock Buster. This is a pair of adjustable hooked cams on long handles. The hook is inserted into the shackle of the lock and the handles apply pressure to pop the lock. Being adjustable it will adapt to fit a wide range of sizes.

Ingenuity and invention have always been applied to forcible entry

Duckbill

The Duckbill is a modern device used to open padlocks using the same principle as the old conical jemmy. This tool however is a flat steel wedge about 18 inches long and half an inch thick on a two foot handle. The taper of the wedge is such that it fits into the shackle easily and when struck with a sledge hammer will force the lock apart with only a few blows.

The Duckbill can also be used for other jobs requiring leverage, such as the K tool, or for doors that open outwards when assisting the next device.

For many years it has been known that door frames can be spread apart by force.

Hydraulic door openers

Originally a car jack and blocks of wood were used but the problem of hydraulic leaks when operating sideways and the dimensions of the doorframe brought about specialised door frame spreaders.

Several firms produce these but a typical hand operated device is illustrated.

It will extend from 28 inches to 46, exerts a pressure of 3 tonnes and only weighs 17 pounds. Once the jamb has spread far enough for the dead bolt or latch to be no longer held, the door will swing open. For outward opening doors a Halligan, Duckbill or other lever is inserted and pulls the door forward clear of the frame. The spreader has then to be removed before the door can open fully.

Other versions have the hydraulics and pump connected by flexible hose to the ram so that the operator is not in the way when the door opens and the entry team starts its work. There are even battery powered hydraulics for a fast build up of pressure and

rapid opening, but these are heavier to get into position and I would not want to have to carry the kit up a tower block of flats when the lift is not to be used for tactical reasons.

A tool used several years ago by the Customs and Excise consisted of two L shaped plates connected by an eccentric cam and a lever. One edge of one plate was forced between the door and the jamb and pressure was applied with the handle. The second plate was thus

pushed with some force against the door and this was enough to force the door open. This tool can also be used to force doors that open upwards and sliding shutters. The version I saw at an exhibition differed from the one in the illustration and I gained the impression that it should not have been put on display.

but its removal would only attract more attention

Other ingenious tools

Ingenuity and invention have always been applied to forcible entry. Two examples of this are given in Steve Collins book, published in 1998 The good guys wear black, about the Metropolitan Police Firearms Wing.

One device consists of a jemmy welded to an L shaped bar. It is punched through the glass and metal mesh of a fire exit door. Pulling back sharply causes the hook to catch the panic bar and open the door.

The other tool was a crowbar with a chain fixed near the mid point. This was to be posted through the letter box of an outward opening armoured door. The bar would turn and be fixed across the letterbox and the other end of the chain would be pulled by an armoured JCB to rip the complete door away. According to the text, this was not used but the idea is still there.

There are many other devices to get through doors quickly, but I feel that methods of drilling, explosive entry, shooting off the hinges, ram raiding (although it worked for Elliott Ness) and some escapologists tricks are outside the scope of this article which I hope you will have found of interest.

Richard Hopkins

Illustrations to accompany this article are on p.5

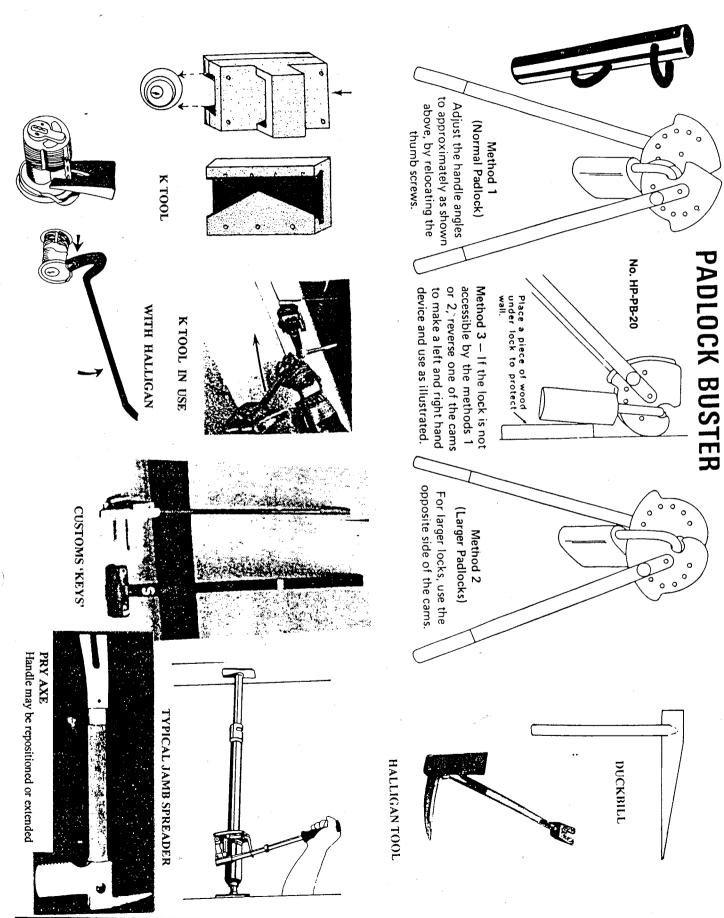
Chancery Lane Safe Deposit

The advertisement reproduced on pp.6-7 was supplied by Trevor Dowson.

The border design linking the small vertical pictures is sometimes called a fret, but is better known as a key pattern. They were widespread, from the Greeks to the Celts, but the oldest known is pre-historic. It was carved with marvelous accuracy on a mammoth bone.

K PULLER

TYPICAL BATTERING RAM







LONDON,

W.C.

THE HLUSTRATED SPORTING AND DRAMATIC MEWS, NOVEMBER 3, 1888. - 225

Questions from readers

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.



Padlock feedback

Several reports have been received about Linley padlocks. They were made by Milner. Ion Millington warns to keep your fingers out of the way when you open one, otherwise they will be trapped by the jaws of the shackle as they spring open. Bob Heilemann describes one in circular form. 85mm diameter. It is marked top centre with a crown over ARTHUR LINLEY PATENTEE: on the swinging brass keyhole cover is stamped Milner's Phœnix symbol; on either side of this cover is stampd MILNERS LIVERPOOL. At the bottom is a number, which might be a running production number. This resembles the patent drawing.

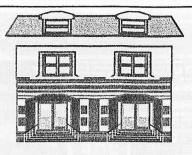
Bob has sent pictures of this Linley padlock, and two Waine padlocks, unfortunately they will not reproduce. They resemble pictures 6 and 7 on p.2 of Issue 7. The key for 7 appears to be simply warded.

Clarke padlock feedback

Peter Cowie reports that the Clarke padlock works the same way as the current Codelock, where the active tumblers unblock the bolt system. He used to have trouble with these when the active tumblers sprang back into the locked position, due to the very small amount of metal on the tumbler at the detent point. As it hasn't happened lately, he presumes the build-up of gunge prevents it happening. He hasn't lubricated one for ages.

Peter also reports a magical performance of 'Seven keys to Baldpate' at a fair several

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Places of interest

everal European flea markets are recommended by Jon Millington. These are Lisbon (Tuesdays and Saturdays), Barcelona (Saturdays), Budapest (daily, out near the airport). Prague was disappointing: there were quite a few so-called antique shops, but with very little in the way of locks and keys - and no proper flea market.

Many readers have collections of locks and keys. *Peter Hall* would be willing to show his to interested visitors to the Nottingham area. Please telephone him on \$\mathbb{\text{m}}\$0111 5931 2411 if you would like to visit. Would any other readers also be willing to receive visitors? Would subscribers like to have their names and addresses published in these pages? You have a chance to say so on your renewal notice.

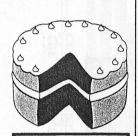
Museums

Kirkstall Abbey and Abbey House Museum, Kirkstall Road Leeds, 20113 275 5821, is another museum with a recreation of shops and cottages, part of Victorian Leeds. Would someone tell us if it is worth visiting?

Snowshill Manor, Broadway, 201386 852410 is a building worth a visit architecturally, but the main attraction is the contents. It is one big glorious 'cabinet of curiosities'! The collection includes around 300 keys, mainly seventeenth and eighteenth century, 30 locks, and 5 armada chests. Only a small part of these are on public display. A description from 1972 reported that they were unlabelled and unorganised. Has the situation changed since?

The collection of Josiah Parkes & Sons, which had been on display at Union Works, Willenhall, might in the future be put on display in the Lock Museum, New Road, Willenhall.

(from Trevor Dowson and John Whistance.)



Feedback

Feedback (cont from p.8)

years ago. A prominent magic dealer tells me this version is still selling well in Britain; some buyers actually perform it. (Most magicians use only a few of the props they buy - many more are rather like collectibles than magic to perform. But you won't be surprised to hear that!)

Chatwood wallsafe lock

The Chatwood wallsafe lock is a modified Kromer Simplex, writes *Peter Cowie*. Chatwood had to buy in locks when Aubin, his usual maker, went bankrupt in the 1880's. No British lockmaker, presumably, would make Chatwood's lock, nor would supply good safe locks to a rival. Chatwood bought Protector locks from the German company of Kromer, but would not allow the Kromer name to appear on the keys. These keys, however, had both Kromer's and Chatwood's production numbers stamped on them. The Kromer number was stamped after cutting but before the key was hardened by heat treatment.

Although Chatwood later began production of his own locks, presumably for some reason the company again had reason to buy in locks after the Great War. Does anyone know the reason? Possibly Chatwood, like other leading safe companies, had gone over to war work, and could not immediately meet post-war demands. And was Kromer production moved to Switzerland to avoid being involved in reparations? Or to distance the company from the unpopularity of Germany in some parts of Europe?

After the Great War, Fraigneux bought a supply of Kromer key blanks, and used them for a simplified Protector-like lock for Belgian safe-deposits. This was done to avoid buying locks from a German company.

The modern wallsafe design is of continental origin, after Chubb (which had already merged with Chatwood-Milner) merged with Lips, reports *Peter Hall*.

Union flag stickers

For those curious about the Union Flag stickers - it's a long story, but briefly:

some years ago I made a large origami ship for the retirement dinner of a senior naval officer. I needed a Union Jack to decorate it, such as children use on sandcastles. However, I had difficulty finding a small paper flag. Then I encountered a rep. for a leading stationery wholesaler. She told me that her company had ceased making flag stickers, but she had a few packets in her office, which she would send me. She did indeed. After using the 2 that I needed, I was left with several hundred flag stickers. I now stick them on envelopes. With the current upsurge in nationalism, I wish to use up the stock of the United Kingdom's flag before the Union Flag becomes redundant. *Editor*

Collecting locks

here is the best place to find locks and keys, in readers' experience? Some readers have had some successes in flea markets and car boot sales. Locks also appear in antique and collectors' fairs. Junk shops are another source.

Collectors seem to fall into two groups. Fine art collectors are interested in artistic metalwork. If scorn is too strong a word, they are at best disparaging of any interest in the technicalities of locks. Antique locks and keys which appear in the auction houses are usually of fine quality and sell for high prices. Some antique dealers will search for items for customers.

Other collectors are more interested in technology. Scrap metal yards and bomb sites of the fifties, then demolition sites of the sixties and seventies, were good hunting grounds. Today there are few antique dealers who are particularly interested in locks, but one who is interested in domestic metalware including keys is Key Antiques, Chipping Norton, \$\mathbb{\mathbb{C}}01608 643777.

There are numerous architectural salvage yards, where stock varies continuously. These are some which deal in metalwork: House of Steel Antiques, Islington \$\mathbb{2}0181-607 5889; Bridgewater Reclamation Ltd \$\mathbb{2}01278 424636; Oxford Architectural Antiques \$\mathbb{2}01865 53310; Glover & Stacey Ltd, Farnborough \$\mathbb{2}01252 549334; Sussex Demolition Services, Oxted \$\mathbb{2}01883 715413; Cromwell Reclamation, Ware \$\mathbb{2}01920 468358.

For those on the Internet there are numerous sellers. Paul Prescott is at Paul.A.Prescott@btinernet.com, or 201494 446692. eBay has masses for sale, but I am told there is little to be greatly desired. However, it will in time establish price guides in a very large marketplace.

If help is needed with restoration, several people have already been mentioned in these columns in the past. Paul Prescott fits Bramah keys. Bramah Security Centres Ltd 20171 935 7147 will not only date original Bramah locks. They will cut keys to old locks, open and repair old locks, make new locks to an old design, and undertake overseas work. They are not limited to working on Bramah locks.

Allan Reeling Metal Restoration, Ironbridge ₹01952 433031, and Surrey Antique Restoration, Croydon ₹0181 684 1356 restore and refurbish metal items, including cleaning, repair and polishing.

There are several companies specialising in restoration materials, including cabinet locks and other brassware. Some can not only supply replicas, but make one-off to pattern. They include: Relics, Witney \$\mathbb{2}01993 704611, Suffolk Brass, Bury St Edmonds \$\mathbb{2}01359 233383 and J Shiner & Sons Ltd, London W1 \$\mathbb{2}0171 636 0740.

Richard Phillips

Anglo-American Lock Company

he Anglo-American Lock Company was started in Willenhall in 1900 by Charles Leonard Nott, who had previously been with H & T Vaughan.

Vaughan's works was in Wood Street, Willenhall. They made Yale locks under licence, until Yale & Towne took over the company, and the address, in 1928.

The Secretary of the Anglo-American Lock Company was Elsa Norman and her brother Edgar Norman was Works Manger. Charles Nott died in 1940, and the company was taken over by his sister Miriam Nott, who continued the business until the mid 1950's. Tools, patterns, and goodwill were purchased by A & E Morgan, Clothier Street, Willenhall.

The Anglo-American Lock Company had a three-storey works called Atlantic works, in Cheapside, Willenhall. It was converted to flats in the 1980's.

Locks produced

There is a 1907 catalogue, and a number of locks in the Lock Museum, Willenhall, The company made the Dreadnought padlock, and numerous warded and other padlocks; and other locks. Some of these were described as 'American pattern', although British made throughout. Some are clearly copies of Yale designs, marked ANGLO-AMERICAN LOCK COMPANY, WILLENHALL. They appear to be mostly from the bottom end of the Yale ranges. Charles Nott's having previously worked with Vaughan is presumably the link with production of Yale designs.

Trevor Dowson and John Whistance



IMPROYED NEW PATTERN PAULOCKS.

CHANCERY-LANE SAFE DEPOSIT

HANCERY-LANE SAFE DEPOSIT. NECESSITY OF THE TIME

A GREAT NATIONAL SAFEGUARD CHANGERY-LANE SAFE DEPOSIT NECESSITY OF THE TIME

SECOND to

NONE

CONVENIENCE, REGARDS SAFETY and

and HAS

DVANTAGE of BEING

SERVE FULL CONFIDENCE of

BEFORE the ERA of
SAFE DEPOSIT COMPANIES,
EVERY PERSON SEEKING a
PLACE WHERE HIS DEPARTMENTS with the BEST of its KIND. VALUABLES WOULD BE SAFE from the

ENTER THESE STRONG-BOXES, and [T WAS NOT LONG, however, before the

PUBLIC with the

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OBLIGED TO LAY OUT

SEEK OTHER MEANS of

PEOPLE are now COMPELLED

PROTECTION for their WEALTH.

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LARGE SUMS OF MONEY in so-called BURGLAR-PROOF SAFES. ABSOLUTELY TRUSTWORTHY OFFICE can be CONSIDERED OWN HOUSE or THE TIME HAS GONE BY PRIVATE SAFES

CHANCERY-LANS SAFE DEPOSIT CHANCERY-LANE SAFE DEPOSITE NECESSITY OF THE TIME.

HANCERY-LANE SAFE DEPOSIT

Rooms, CHANCERY-LANE SAFE DEPOSITE NECESSITY OF THE TIME. from 8 Guineas,

Cornhill robbery(continued

from p.2)

took six or seven hours to open them with wedges and long bars. Some of these were small, called 'citizens', followed by others that were 5' long, joined in three pieces for easy carrying, called 'aldermen'⁴. These codenames were used to avoid mentioning 'crowbars' in public. This explanation drew some laughter. Wedges made enough room to insert small crowbars, which made room for the long ones. These ripped the outer door plate from the lockcase screws; with the outer plate open, the boltwork could be dismantled. The job took all night.

The Daily Telegraph gave Caseley, in effect, a dramatic review: it praised his abundant, keen wit, fluency, and fine dramatic instinct.

Unreasonable expectations

The Court found against Mr Walker: no safe could be expected to resist indefinitely without further support from guards. Increased public recognition of the value of good safes, and contempt for shoddy inferior ones, was one result of the case. Another was the upsurge in new safe patents; 36 in the following year and half! Final defeat of wedges and ripping would come with the twelve-bent safe and three-way moving bolt-work, but by then, the safebreakers' methods had also moved on. However, a London safebreaker's kit given to Sir George Chubb in 1886 still relied on wedges and jemmies.

Mr Walker eventually had to buy a new safe. Following the sensational burglary and the sensational court cases, there was continuing public interest sufficient to prompt publication of a detailed technical account of the new safe. (see below, p.12)

Richard Phillips

Unusual brassware

he British brass smelting industry was comparatively recent. Until about 1740, most brass was imported from the continent. British smelting efforts had long been less than completely successful. When that changed, Brass became one of the nineteenth century's favourite metals, and production and uses increased dramatically.

This example was thought worthy of record in 1866. It comes from *Birmingham and the Midland hardware district*, by S. Timmins.

Coffins

The bodies of past rulers reposed in sarcophagi of stone, or their ashes in graceful urns. In more recent times coffins of lead, oak, mahogany, and other woods have been used for our dead. Modern invention has given us coffins of glass, of iron, and of zinc, and even inserted in the last, glass plates directly over the visage of the silent tenant. But none of these materials was grand enough to form the mortuary chests destined to contain the remains of two palm oil potentates who ruled, or rule, on the south coast of Africa (then still the Dark Continent - Ed.) These rulers bore, or still bear, the euphonious titles of "King I Am", and "Egbo Jack". They desired their coffins to be made of brass, and wished to see them before they were permanently used. Of brass the coffins were accordingly made; each coffin was 6' 10" in length, 3' in depth, and 2' 3" at the widest point. The whole was polished, lacquered, and richly decorated with cast ornaments, and had substantial handles. A shield with blazonings surmounted the lid of each: but the most singular feature which marked these objects was the introduction of four padlocks in and on each, two of which were attached to the interior, and two to the exterior. The interior padlocks had their hasps, and could only be locked from the inside. Report stated that the coffins during life were intended to serve the purpose of an oratory, or private cell, into which the proprietor retired for devotional purposes, locking himself in during his spiritual exercises; each coffin weighed 600 pounds. A more prosaic reading of their use will be found, it is thought, in their owners using them as receptacles for their treasure during life, and after death to be buried in the coffin with it, as is the custom in that country of Gold Dust, Elephants' Tusks, Palm Oil, and Vegetable Gums.

Trevor Dowson

For forthcoming issues,

there are items in preparation on early motoring locks, electric locks, handcuffs, coin operated locks, and wooden locks. There could be more on Roman and Viking locks; spies and locks; and various nineteenth century locks. Also in preparation are articles on cataloguing and storing collections, and workshop ideas. What else would you like to see? Let me know with your subscription renewal!

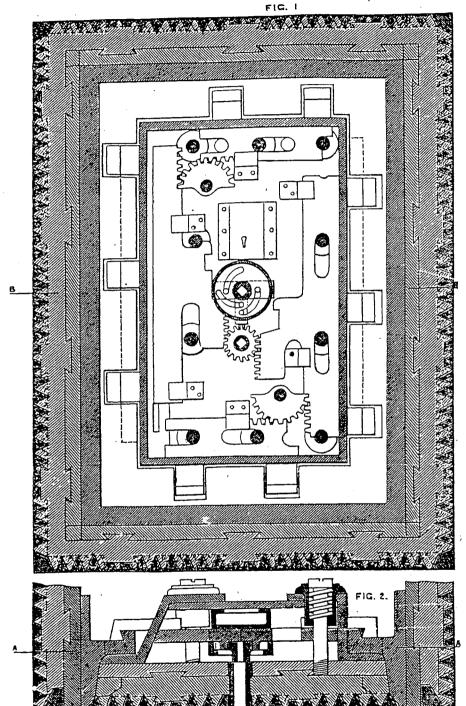
li.e., the floor above the ground floor.

²cheap slum apartment blocks - squalid, overcrowded, many inhabitants engaging in some sort of villainy.

³The Queen's Bench, in the Strand, is the most senior civil court, the Lord Chief Justice the most senior professional judge (i.e. not a politician). In most cases each side would have only two barristers, and even the principal one would often not be a Queen's Counsel.

⁴in England and Wales until 1974, one of the senior members of a local government Council, elected from among their numbers by the Councillors, as an honour (from Old English for Chief, or Elder).

PATENT SAFE AT MESSRS. WALKER AND SON'S. CONSTRUCTED BY THE CHATWOOD PATENT SAFE COMPANY, LIMITED, BOLTON.



ENGINEERING. Nov. 23, 1866.]

AFTER Mr. Walker's safe in his jewellery shop in Cornhill had been broken open and robbed by "Counsellor" Casely and his able associates, Mr. Robert F. Fairlie pointed out, in a letter to the Times, how easy it was to force the framing of most safes sideways, away from the door, if wedges—in other words "citi-zens" and "aldermen"—were once entered between them. If we remember rightly, he recommended angle-iron around the safe to increase the difficulty of forcing it laterally open. Mr. Walker eventually obtained a safe for each of his well-known shops from Mr. Chatwood, of Bolton, and these safes are believed to and these safes are beneved to be absolutely proof against the most accomplished and resolute burglars in the great army of London thieves. The mode of London thieves. The mode of attack upon the former safe in Cornhill is here prevented by the rounded edge of the door, and rounded edge of the door, and the corresponding hollow in the side framing. There is no oppor-tunity of getting a wedge in, nor of driving it supposing it were a little way entered. But even supposing a wedge were well entered in an opening made for the purpose, the sides of the safe could not be forced away from the door, for the bolts are hooked, in the manner in which the fingers of the opposite hands may be, against corresponding catches in the side walls of the safe. Before the bolts can be even withdrawn, they must move laterally, or in a direction parallel with the front edge of the safe, so as to disengage them from the hooked catches within the safe framing.

The bolts and catches are of great strength, and no forcing by merely hand power, however assisted by tackle, could separate them. The sides of the safe are them. made of steel plates, with spiegeleisen run between. The steel plates are drilled with a great number of shallow conical holes the better to retain the spiegel-The whole thickness is eisen. 2 in. solid, all around. No drill can touch such a combination, and no force less than that of a steam hammer or a cannon shot could

ever break through it.

The key-toole is filled by a small platinum lock, with its own key to lock it in. The smaller key-hole could hold but a minute quantity of powder, and the platinum would resist any attack with the blow-pipe flame. Even if a burglar succeeded in unlocking and removing this lock, he would be but little nearer his object.

Mr. Walker's selection of this safe and the evident care with

safe, and the evident care with which it has been designed to resist every kind of violence, give it interest for many of our readers. We have prepared drawings which, without our describing them in detail, will clearly show the points in the general construction of the safe and lock to which we have called attention.