

# A pernicious and wicked custom: corporate responses to lock picking in the Scottish town, 1488–1788

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## ABSTRACT

*While the use of lock picking for criminal purposes was not confined to towns, there were several specifically urban, unique responses to it from the craft guilds of Scotland's burghs. In an urban context, the prevention of lock picking can be seen to have depended largely on a framework of corporatism. This article examines how security was provided, the role of locks in the urban environment, the deficiencies of lock technology, and the exploits of the infamous Deacon Brodie. While it was impossible to make a pick-proof, warded lock, the incorporations did what they could to contain this 'pernicious and wicked custom'.*

## INTRODUCTION

In early modern Scotland the physical act of assaulting someone in their home was known as 'hamesucken' (Robinson 1992, 264). One element of this crime was the physical act of entering unlawfully. Technology was, and still is, the most common deterrent to unlawful entry. Though lock picking was not exclusively an urban problem, there is evidence of specifically urban responses to it, as the craftsmen who made the lock mechanisms were charged with finding solutions to the problem of criminals being able to pick their locks. In this way, we see a unique function of corporatism and craft guilds in the provision of security. It has been stated that craft incorporations in early modern Scottish burghs were a form of social control (Lynch 1981, 55), and one way in which this particular societal problem was dealt with was through the institution of incorporation. The locksmith craft was in a position to provide greater security, but the impetus for this did not always come from the craftsmen themselves. The craft had to counter self-interest and enforce new

measures dealing with the problem. Aside from the technical side of security, as shall be seen, there were several other corporate responses to what was a serious crime in early modern urban society.

To explore picking as an urban problem we will need to understand how locks functioned and, in particular, how they were used in burghs. To understand the criminal side of what was a normal day-to-day technique for legitimate locksmiths, it will be helpful to look at the infamous case of Deacon Brodie. First, we must look at how security was provided in the early modern burgh.

## PROVISION OF SECURITY IN EARLY MODERN TOWNS

### COMMUNAL SECURITY

In Scottish towns of the early modern period there were no police forces to provide security for the inhabitants, so security became a communal responsibility affecting all levels of

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the social order. Morality was encouraged by the church, though Christianity did not preclude crime. Ideas of the ‘common weal’ were encouraged in society in an attempt to undercut selfishness and promote a sense of communal identity; crime not only hurt individuals, but the whole community. Since the medieval period it was the duty of every burgher to participate in the provision of security through institutions such as the keeping of arms in one’s home or shop, the nightly watch and ward, semi-regular ‘wappenshaws’, or musters, and the building of defensive structures, such as castles or town walls (Allen 2005, 1–9). By the mid-17th century these institutions were evolving. In 1644, incoming Edinburgh burghers stopped providing themselves with personal weapons and instead paid money to support a town armoury (Watson 1929, 15). In the burgh of Cupar in Fife, the last mobilization of the town guard was in 1715, while their guns were sold in 1735 (Martin 2006, 159). Society was slowly moving towards a centralized source of security, with individuals less likely to be responsible for its provision. This did not mean that crime disappeared; society simply took a different approach to dealing with it. Even with government troops from the standing British army billeted in late 18th-century Cupar, the bailies still called on townspeople to work together ‘in defence of their private rights and public liberties’, referring to a recent spate of arson, ‘house breaking and theft’ (*ibid.*, 157).

#### INDIVIDUAL SECURITY

There were, of course, many ways in which an individual or family could provide security for their own home. Most important to this study, is the purchase of lock mechanisms from a locksmith. The locksmiths were part of a conglomerate craft of metalworkers known as the Incorporation of Hammermen. Incorporation was a organized method of craft production in

which quality of was ensured and competition limited. Though not specifically mentioned in the Incorporation’s 1483 seal of cause, which established their legal rights and privileges, it is known that there were locksmiths in Scotland from at least 1326 and in Edinburgh before 1496 (Allen 2007, 62–7). The locks they made could be purchased by either home owners or the craftsmen from the building trades who often fitted them.

The institution of incorporation was the Scottish version of what has been labelled by modern historians as ‘corporatism’ (Farr 2000, 20–1). By banding together, the small crafts formed a larger, more influential craft which could lobby the council on issues which the craftsmen deemed important. Corporatism gave the crafts a political voice. It also gave the council a way to govern the craftsmen (Lynch 1981, 55), providing a structure into which apprentices, journeymen, masters, deacons and their families had to fit.

Aside from establishing a system in which the council could control the craftsmen, corporatism also set up forms of quality control. If a locksmith was going to work in Edinburgh, he first had to prove his skill at making locks in order to be accepted into the incorporation as a freeman locksmith. If his essay lock was well constructed, as deemed by the master locksmiths already in the hammermen, then he was allowed into the incorporation. Even then, there were still searchers sent through the weekly markets by the hammermen which would test his work. If found lacking then the locks would be confiscated and auctioned off at a meeting of the incorporation.<sup>1</sup> While this did provide some impetus for locksmiths to make trustworthy mechanisms, not all craftsmen behaved.

#### LOCKS AS PART OF THE URBAN LANDSCAPE: STRUCTURES

In the early modern period, many Scottish burghs experienced a marked expansion in the

building of both municipal and privately-owned structures. New institutions such as corporatism brought craft-owned, purpose-built convening halls where the tradesmen met.<sup>2</sup> Increased foreign trade required warehouses and cellars. Investment and the advent of banking required secure physical locations in which to keep strong boxes and record books.<sup>3</sup> The itinerant royal court required fashionable townhouses. With the demographic growth of the 16th century, and the increased economic importance which came to those settlements fortunate enough to attain royal, baronial or regality status, there were more people to shelter and more resources with which to build.

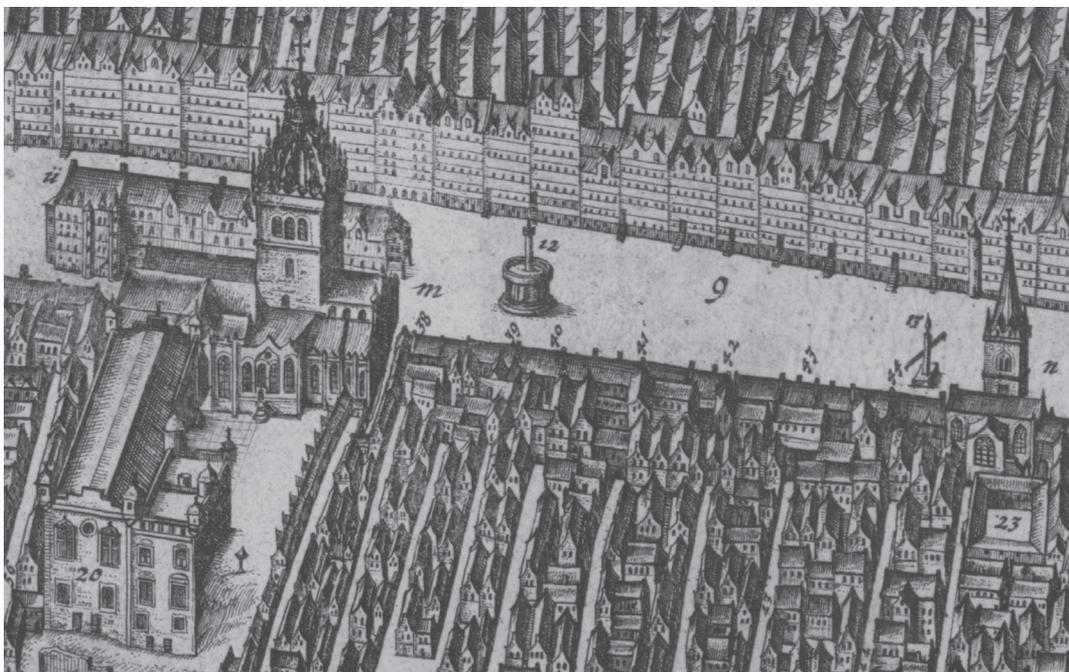
Although the urban experience of growth was far from uniform, early modern burghs increasingly included more durable, stone-built structures, many of which survive. The 1626 'Black Castle' in South Queensferry or the 1590s 'Culross Palace' demonstrate the longevity of stone buildings in towns which have a distinct lack of surviving timber-frame structures. These newer stone buildings may have been strong, but they were only as secure as their doors, so the lock was, by the very nature of early modern architecture, an integral part of the built environment.

These buildings housed not only people, but also valuables, both public and private. Written and printed records, which undoubtedly increased with improvements in literacy and printing technology, needed to be both stored and protected. For example, Edinburgh's burgesses and guild-brethren were recorded in a 'locked book' which in 1580 was kept in the Charter House (Watson 1929, 6). Craft records and funds were usually kept by a 'boxmaster', or treasurer, in the incorporation's box. These usually had three locks on them, with different keys given to three different office holders to increase security (Allen 2007, 12). Sets of weights and measures, which were traditionally made to national standards by one of the four towns holding the originals,<sup>4</sup> had to be kept safe. Some burghs, such as Dunkeld, mounted

their ell measure directly onto a building in public view, providing security and access.<sup>5</sup> Weights, however, could not be attached to a building, and needed to be stored under lock and key. Usually, they were kept by the Dean of Guild (Mair 1988, 123).

#### EDINBURGH, 1647

Though distinctly different from other Scottish burghs, the case of Edinburgh demonstrates nicely the kinds of buildings which would have required lock mechanisms. Aside from private dwellings, such as multi-story tenements, or the town houses associated with the nobility, there was an array of municipal or corporately owned buildings in the Scottish capital. Many of these were the result of a burst in municipal building in the first two decades of the 17th century (Lee 1980, 16). The range of urban structures is demonstrated by the 1647 town plan of Edinburgh created by James Gordon of Rothiemay.<sup>6</sup> Rothiemay deemed certain features of the town important enough to be labelled in the plan's key. Of these, there are 33 public or municipal structures in Edinburgh, all of which would have required locks. There were buildings related to national government, such as the Castle and the Parliament House, as well as those related to municipal government, like the Tolbooth, with its gaol, the Town Council House and the Correction House with its associated St Paul's Work.<sup>7</sup> Places of education, such as the College and the High School were labelled. Places of worship, including seven kirks and two chapels were labelled. One of these, the Magdalen Chapel, was also a convening house for the Incorporation of Hammermen. Certain market structures, such as the Tron, or weigh-beam, the Weigh-house and the Market Cross were labelled, as were the Society (which was a brewery) and the Meal, Fish and Flesh Markets. Most of these would have needed security mechanisms. There were places of care, such as Heriot's and Trinity Hospitals. There were



ILLUS 1 Edinburgh's High Street (9), with the new Parliament (20), St Giles Kirk (m), the Tolbooth (ii), the Tron (13), the Tron Kirk (n), and the Flesh Market (23). Reproduced by permission of the Trustees of the National Library of Scotland, J Gordon of Rothiemay, *Edinodunensis Tabulam* (Edinburgh, 1647).

also seven ports in the town walls which were labelled on Rothiemay's map, all of which were locked every night (*Edin Recs* 1871, 131–2). It is impossible to say how many locks these 33 labelled structures would have required, but it is clear that the security measures were not infallible.

There were also structures which were illustrated on the map, but not labelled in the key. These include the mint buildings in the Cowgate,<sup>8</sup> various convening halls for the incorporated trades,<sup>9</sup> and enclosed market spaces such as the 'Pudding Market'.<sup>10</sup> In addition to the public structures were the countless domestic buildings. When taken into account that the population of Edinburgh in 1635 was around 20,000 (Lynch 1988, 279), it becomes clear that the lock was an important part of the urban landscape in 17th-century Edinburgh.

#### EXPANSION, 1700s

By the 18th century there were even more structures in Scotland's burghs on which to fit locks. Banks were becoming more common, with the Bank of Scotland, Royal Bank of Scotland and the British Linen Company being just the larger ones. Smaller banks, such as the Ayr Bank, also required premises and security mechanisms. Further increased merchant activity filled these banks, but also caused towns to expand. Glasgow's trans-Atlantic trade brought about the 'Merchant City', while burghs of barony, which, prior to 1672, were not allowed to partake in international trade, were finally given access to this sector of the economy (Dennison 2007, 145). Consumer demand was growing (Farr 2000, 49), as was the middle class (Lynch 1989, 88). As more luxury items were

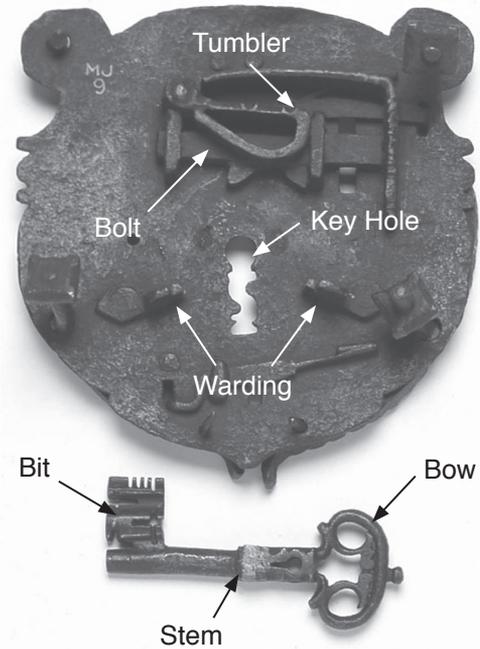
being consumed by the upper class, cheaper versions made of alternative materials, such as pewter, were coming into more demand. As the socio-economic structure of Scotland's burghs became more complex, there was simply more to lock up.

Though it could be argued that we do not know that all of the urban structures did in fact have locks, it is safe to assume that the majority did. Governmental records show that most public buildings were fitted with locks (Dickson 1877; Paton 1957; 1982). Surviving material culture, such as doors now held in the National Museum of Scotland, or even contemporary popular culture and art hint that even the lowliest of houses could have had security mechanisms fitted on the doors. An example of this comes from the 18th century English artist, Hogarth. His 1747 engraving, 'The Idle Prentice Returned from Sea, & In a Garrett with a Common Prostitute', clearly shows a door of what can only be described as a hovel, fitted with a wooden stock lock (Hallett 2000, 206). With locks available in a range of prices (Allen 2007, Table 5.1), and the number of craftsmen making them increasing over the early modern period (ibid, 105), it is clear that urban society had access to security. The problem wasn't availability; it was that the technology was medieval and easily bypassed.

#### TECHNOLOGY AND SECURITY: HOW LOCKS WORKED

The lock technology available in early modern Europe remained basic and unchanged since at least the middle ages. Known as 'warded technology', the majority of the locks were based on the pivot-key type, which meant that the key moved in a pivotal motion around warding inside the lock, with the key bit orbiting the centre of the keyhole, as opposed to the sliding key type favoured by the Romans and Greeks around the time of Christ.

A warded lock, when viewed as a unit, breaks down into two basic elements; a portable



ILLUS 2 Key and backside of a c 1627 chest lock, showing bolt, S-shaped key hole, tumbler and warding. Courtesy of the National Museum of Scotland, MJ 9

key and a mounted lock. While the key could consist of only one single part, the locks were far more complex. Both merit a brief description in order to understand how an early modern lock could be picked. Keys were functionally not all that different to modern keys. They were simply implements used to exert leverage on the bolt of lock so as to either push the bolt between the door and the door jamb, or to remove bolt from jamb to allow door to move freely. Where they differ from modern keys is in the way in which they manipulated the lock mechanism. Early modern keys consisted of four main parts, including a bow, a bit, a shank and a stem. The bow acted as a handle, in order to turn the long, cylindrical stem. These two parts worked in a similar motion to a door knob or screwdriver. The shank was the section of the stem put inside the key hole

and the bit was the flag-like section of the key which glided over the inner warding in a circular motion to push the bolt open or closed.

The parts of a lock were complex, but nowhere near as complex as a modern lock. The most important part was the actual bolt. The idea behind a bolt was very simple; it was a bar which extended out of the lock into the door jamb to impede the door from opening. The bolt could only be reached through the key hole, which gave access to the key. This access was hindered, however, by the metal pieces which surrounded the key hole known as 'warding'. The name derives from the fact that the function of these parts was to ward off false keys. Warding often consisted of a 'C'-shaped, series of obstacles, resembling fencing, put in the orbital path of the key. When looking at a warded key, there are clefts, or small cuts, visible on the bit. These clefts were cut out of the key to allow it to glide around the warding. The more complex the warding, the harder it was to get picks through the key hole to the bolt, as there were more parts in the way. More intricate warding meant thinner and weaker picks, increasing the chances of breakage and the length of time required for production.

Security could be added to the mechanism by using a post, which was a cylindrical piece of metal set inside the key hole. With the post in the centre of the key-way, there was less space to insert picks and manipulate the bolt inside. The key hole was usually the only access to the bolt and a post offered one more obstacle for would be thieves. Posts also added to the amount of iron in the lock, which drove up costs for the locksmiths' customers.

Another piece of medieval technology was the tumbler. This was a triangular shaped piece of metal inside the lock which held the bolt in either the locked or unlocked position. This had to be lifted out of the way by the key's bit at the same time as engaging the bolt. This is why there were often two separate sections to a key's bit. The left side lifted the tumbler, the central gap allowed passage over the warding and the right

side pushed the bolt. With this basic information, anyone could pick a warded lock.

Not all locks would have utilized all of these parts, as each one was hand made and therefore any number of variations could have been employed. Most locks consisted of a group of parts mounted to either an iron plate, or inside a wooden block. From a thief's point of view, the only important element of these mounted parts was the bolt. If a lock had just the basic, minimal parts, the bolt and key hole, any object could have been inserted into the mechanism and used to manipulate the bolt and unlock the door, which is the basic principle of 'picking' the lock. With a little knowledge of how an early modern lock worked, they were usually easy to pick through one of the two main methods. The first involved simple manipulation of the bolt. This could have been achieved with two instruments that were fashioned from any long, thin and strong material. A reference from 1699 in the records of the Aberdeen Incorporation of Hammermen referred to these as 'crooked irons' (Bain 1887, 205). The first step was to bend the instruments so that they circumvented the wards once inside. After inserting them through the key hole, the tumbler would have been lifted with one, while the bolt was simultaneously engaged and pushed to the open position with the other. All work had to be done through the key hole, as it was the only window to the bolt. If a post was in the key hole, this could complicate the process. With simpler locks, it was an easy operation.

The other method of picking a lock involved making a key blank, which was a new key without any ward clefts cut out. Once a key blank was filed down to the right dimensions to go inside the key hole, its bit was covered with wax or soot and inserted. With a turn of the bow, the bit was pressed up against the inner warding, leaving an imprint in the wax or soot of the obstacles inside the lock. The areas where the wards touched were then removed, leaving the key to swivel freely around the wards. The height of the bit was then adjusted until the new key opened the lock. This was known as a 'false



ILLUS 3 1698 locksmith's shop from Nürnberg showing 'crooked irons', or lock picks, hanging in the upper left-hand corner. C Weigel, *Die Bauleute aus dem Ständebuch von Christoff Weigel* (München, 1963)

key' in early modern parlance. This could also be achieved by taking an impression of the true key, and simply copying it. As can be seen by the example of Deacon William Brodie, both the use of soot and impression were very effective methods (Malcolm 1942, 16 & Roughead 1921, 251).

## DEACON WILLIAM BRODIE

### DEACON OF THE INCORPORATION OF WRIGHTS AND THIEF

The exploits of Deacon William Brodie are probably the best known example of illegal lock picking in Scotland. The double nature of this individual has captured many imaginations over the centuries. William Brodie was born into a prestigious family, with strong ties to the Edinburgh legal profession. Both of his grandfathers had been writers, with Ludovick Brodie having been a writer to the signet (Roughead 1921, 11). His father, Francis Brodie, was a craftsman with an equally prestigious career, as he was a wright and cabinetmaker in Edinburgh's Lawnmarket. In 1735 he purchased burghship of the town, and in 1763 he became a guild brother. He was elected deacon of his craft in the years 1775–6 and 1779–80. Francis was also elected to be one of the craft councillors in the municipal government for 1775–6. In 1776 he was given the even higher honour of being deacon convener of the 14 incorporated trades of Edinburgh (ibid, 11). When Francis died in 1782, William inherited his sizeable estate of Edinburgh property and £10,000 (ibid, 16).

William, apparently born to good fortune, also attained considerable prestige. On 9 February 1763 he became both burgh and guild brother of Edinburgh (ibid, 15). Shortly after, he paid his upset dues and became a freeman of the Incorporation of Wrights. By the age of 22, he had already broken the invisible ceiling which so many of his fellow journeymen were forbidden to pass (Lynch 1981, 10; Friedrichs

2003, 98). In 1781–3 and 1786–7, he, like his father, was deacon of the Incorporation of Wrights. In 1781 and 1784 he too was on the Edinburgh council (Roughead 1921, 15–16). These offices were not without reward; when a wright was needed for a municipal building contract, the council did not look far to find a craftsman (ibid, 18).<sup>11</sup>

These victories were crowned with the substantial inheritance from his father, Francis. One would think that William Brodie's was a success story, and it might have been, had he not been addicted to gambling. Within four years of his father's death, William had lost his inheritance and turned to crime to fund his addiction. This double life of a respected deacon and councillor turned thief became the inspiration for Stevenson's *The Strange Case of Dr Jekyll and Mr Hyde* (Gibson 1993, 11).

Brodie started using his practical skills and firsthand knowledge of his customers' security measures to effect robberies. Fixing locks to buildings and furniture was part of the day to day work of a wright. Brodie therefore had a basic understanding of how warded locks worked and how to bypass them. His job would have given him access to properties for work purposes, which he cased for later burglaries. Having either seen their locks, some of which he fitted, or having had access to their keys, he was in a position to make lock picks which would open doors with relative ease. Hiding behind his honourable standing as deacon, councillor and son of a convener, he dodged suspicion despite obvious connections to several crimes and a known gambling habit.

Over an 18-month period Brodie is thought to have been involved in at least ten robberies in Edinburgh, Canongate and Leith. After his eventual capture and trial, other stories came to light of burglars, who, with the aid of hindsight, *must* have been Deacon Brodie; the validity of these accounts is, of course, unknown (Roughead 1921, 18). Brodie did not act alone in the 18 months of robberies. Notably, an English grocer named George Smith was involved in

TABLE 1  
Selection of robberies attributed to Brodie and his accomplices (Roughead 1921, 15–38 & Gibson 1993, 44–7)

<i>Year</i>	<i>Business</i>	<i>Stolen Items</i>	<i>Value</i>
1786	Bank	Money	£830 2s
1786	Hardware Shop	Red pocket book, steel watch chains	
1786	Goldsmith's Shop	Gold rings, silver and gold seals, gold and silver broaches, ear-rings, silver spoons, silver shoe and knee buckles	
1786	Tobacconist's Shop	Money	£10–12
1786	Jewellers' Shop	Gold and silver watches, rings, lockets, jewellery and gold trinkets	£350
1787	Grocer's Shop	350 pounds of fine black tea	
1787	University Library	University of Edinburgh's silver mace	
1787	Shop and House	Money, silver watch, rings, gold miniature picture	
1787	Silk Mercers' Shop	Silks and cambrics	£300–400
1787	General Excise Office for Scotland	Money	£16

most of the heists, and apparently made better lock picks than Brodie (Gibson 1993, 47). The later robberies from August 1787 included a Scottish shoemaker named Andrew Ainslie and an Irishman named John Brown (Roughead 1921, 25–7, 31–8; Gibson 1993, 41).

Apparently Brodie's first robbery was of a bank in the Exchange of Edinburgh. He had done some work on it, and had access to the keys. According to the *Edinburgh Evening Courant*, it was thought that an impression was taken of the key bit in wax or clay.<sup>12</sup> From this impression, Brodie would have cut a key to match, giving him access to a door made in his own shop. Of course a deacon of an incorporated trade would never be suspected of such a crime, and the newspaper appealed for 'some smith', who might have innocently made such a key for a customer who brought them an impression, to come forward to name the perpetrator.

Next was a hardware shop which Brodie and Smith robbed together. Taking 'a parcel of false keys and a small crow iron', they opened a padlock and door lock to gain access to the shop.<sup>13</sup> Their loot was not very substantial. They took a red pocket book and some watch chains according to Smith's later deposition.

Though not proven, Brodie was thought to have been involved in the robbery of a goldsmith's shop in Paliament Square, between Goldsmith's Hall and the Council Chambers. The newspaper described in detail the rich haul of gold and silver jewellery, spoons and buckles taken by the thieves.<sup>14</sup> Whether or not this was Brodie will never be known, but it happened while Brodie was at the height of his escapades, and highlights the inadequacy of the security mechanisms of the day.

A similar robbery of a tobacconist's shop happened across the High Street in the Exchange.

In this case, only £10–£12 was taken (Roughead 1921, 22–3). A more substantial taking came from a jewellers' shop on Bridge Street owned by Messrs John and Andrew Bruce. According to Smith, Brodie had told him that, 'it contained valuable goods, and he knew the lock would be easily opened, as it was a plain lock, his men having lately altered that shop-door, at the lowering of the streets ...' (ibid, 260). Brodie and Smith planned this job together, but due to Brodie having a particularly good run of luck at gambling on the night of the break-in, Smith became impatient and did it by himself (ibid, 23–4).

After this, the third member, Ainslie, was included in a robbery of a grocer's shop in Leith. While Brodie stood watch, Smith and Ainslie picked the lock. They took '350 pounds of fine black tea', carried off in heavy wallets (ibid, 25; Gibson 1993, 33).

John Brown, the fourth member of the Brodie 'gang', and the one who would eventually turn them in for a pardon, was included in their next undertaking, which was to steal the University of Edinburgh's silver mace from the College Library. As Brodie had fit the lock, he also provided the pick (Gibson 1993, 44). In the process of picking the lock, the pick broke.<sup>15</sup> For the inner doors of the library, they abandoned finesse and used the crow bar (Roughead 1921, 25).

Their next, smaller robbery was of a house and shop owned by an acquaintance of Brown, before a larger robbery of a silk mercers' shop (ibid, 26–7). The latter was guarded simply by a padlock and a wooden-cased, stock lock (Gibson 1993, 47). An Edinburgh apprentice who followed the events of the string of robberies, noted in his diary the following:

Soon After Messrs. Inglis and Horner was broke up the Carpenter they sent for was no other than Mr Brodie. He came accordingly and surveyed the door and the whole shop with all the Gravity imaginable exclaiming between whiles to the Clerks in the room 'Well I can't conceive how the rogues have got in. I hope they will be taken

yet – the rascals – I'll be damn'd if I would not make a gallows at my own expense to hang three of them at a time' – At the time this daring action was perpetrated this honest gentleman was of the Council of Edinburgh & was of the jury of the last Criminal that was executed for housebreaking (Malcolm 1942, 20).

The hypocrisy soon caught up with him.

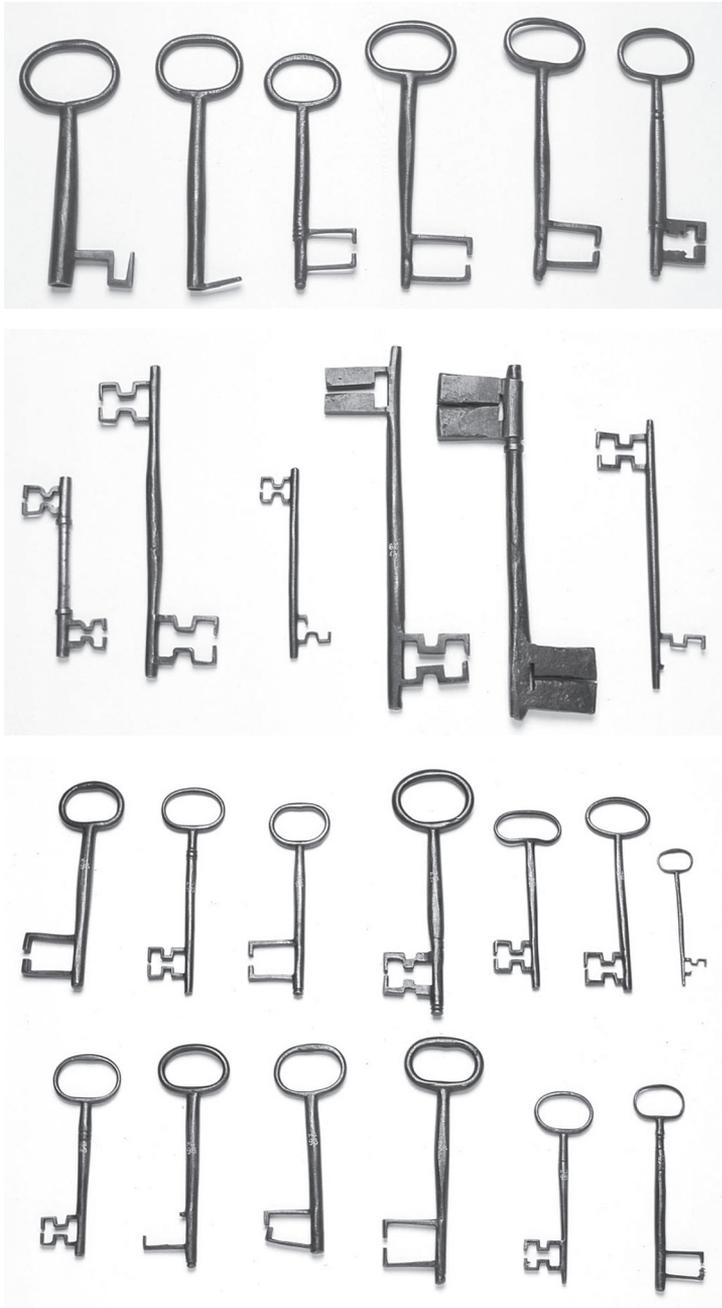
The last burglary for Brodie did not go as planned. They had decided to try a larger target, and planned to raid the General Excise Office for Scotland, at Chessel's Court, Canongate. When a deputy solicitor returned late at night to pick something up, the four crooks fled, having found only a little over 16 pounds (Roughead 1921, 35).

Brown, tempted by the reward of £150 and a pardon, turned informer (ibid, 38). With his help, the lock picks, which had been hidden after the Excise Office job, were discovered near Arthur's Seat (Malcolm 1942, 16). Brodie, after an impressive escape to the continent, was eventually captured, brought to trial in Edinburgh, and hung. Part of the evidence used against him was the group of false keys. These picks are now in the collection of the National Museum of Scotland, and merit closer attention.<sup>16</sup>

#### DEACON BRODIE'S LOCK PICKS

The Brodie keys consist of 25 keys in total, which were given to the museum in 1841 by the clerks of the Justiciary Court.<sup>17</sup> Of these 25 keys, two are pipe keys<sup>18</sup> for doors, cabinets, or padlocks, four are stock-lock keys<sup>19</sup> for doors, 13 are common rim-lock keys for doors and six are double-bitted keys for doors or cabinets, providing 31 pick options for the deacon's misadventures.

The two pipe keys are of similar size to rim-lock keys, indicating they were intended to pick medium to large locks. Padlocks of Brodie's time period were of heavy construction, so these picks are not too large to have been padlock picks. One of Brodie's pipe keys, with its single, upward-angled bit, would have been



ILLUS 4 Deacon Brodie's lock picks. Note the blanks which have not yet been cut, and the picks with broken bits. One of these might have been the key broken during the heist of the University of Edinburgh's silver mace. Courtesy of the National Museum of Scotland, MJ 98.1-.18, MJ 99.1-.6, K2002.328

perfect for picking a simple press lock with a back-spring bolt.<sup>20</sup> This type of lock pick did not require the second half of the bit, as there was no tumbler to lift. These simple locks were often fitted to cabinets to keep money and papers safe.

Four of the false keys were intended to pick a type of door lock known as a 'stock lock'. A stock lock was a cheap form of lock where the basic metal parts were mounted in a wooden case (Hume 1969, 244). In London in 1726, an Englishman named Richard Neve published a guide for building techniques and materials entitled, *The City and Country Purchaser and Builder's Dictionary: or the Complete Builders Guide*. Neve describes the chief varieties of London's locks available to builders, such as Brodie. The cheapest is the stock lock at between 10d and 7s, while more expensive types of locks range up to 10s (Neve 1969, 194). Stock locks used less metal and were therefore cheaper to produce. Brodie was in possession of four picks for stock locks. These four picks are identified as such due to the positioning of the shoulder, which was located in the middle of the two bit-halves. The stock lock would seem to have been frequently used



ILLUS 5 Detail of Deacon Brodie's lock picks. Note the thread wrapped around the bits of two of Brodie's picks. Courtesy of the National Museum of Scotland, MJ 98.7 & 98.8

in 18th-century Edinburgh, as 16% of Brodie's keys were for stock locks.<sup>21</sup>

Brodie's 13 rim-lock keys are typical of the late 18th century. As they were picks they did not include a shoulder, as this might have impeded the picking process. In this way, the keys could be inserted into a lock to any required depth, without being stopped by the lock case. The bits were cut exceedingly thin so as to allow passage over and around the warding inside the locks.

The last group of Brodie's picks included six double-bitted keys. These keys, which were fairly common in the time period, included a second key bit in place of the bow. They were able to open two different locks, while only having to carry one key. Brodie had three large, one medium and two small double-bitted keys, one with shoulders and the others without. The two largest of these are interesting in that they only have the basic main ward and collar ward clefts cut out from the bits. This might indicate that the Brodie gang encountered several large locks that were lacking their warding, a common but immoral practice of many smiths of the day. It might indicate that these keys had not yet been cut and were being held in reserve for future

jobs, with only the basic pattern of ward clefts removed to save time. They might represent three houses or shops that were spared when Brodie fled to Holland and was captured.

Brodie's keys are all rough and unfinished. They were not meant to be decorative; they were simple tools meant to manipulate locks open. Most of the bits are thin and spindly, a defining feature of picks. Some of the bits have broken and one can imagine Brodie swearing under his breath as the false key broke off in the lock he was trying so hard to open with stealth. The fact that the picks were made by a wright and a grocer (Gibson 1993, 47) illustrates the fact that the warded lock technology of the day was better than nothing, but not completely secure. However, it must be pointed out that when improved production methods brought down the cost of newer technology, thieves simply learned how to pick the new locks.

## INCORPORATION RESPONSES TO LOCK PICKING

### OUTSMART THE THIEVES

With only warded technology to work with, an increasing population and a lack of policing, ingenuity was needed to combat the problem of lock picking. The smiths had to somehow outsmart the thieves in the products they made. While locks before the Industrial Revolution may not have been as secure as modern mortice locks, it is not to say that all of them could easily be picked. Some had more intricate warding than others. Some made use of tricks or traps. False key holes were common, as were hidden key holes. One chest lock in the National Museums of Scotland from *c*1627, was made with two hidden levers on the face plate. The thief first had to find the lever which exposed the key hole. Until this was found, one could not pick the lock. Once picked, the puzzled thief would still not be able to open the lock. There was a

second hidden lever on the left hand side of the lock face which also kept the lock closed.<sup>22</sup> Only when both levers were found and the lock picked would the chest finally open.

#### OUTSMART THE CUSTOMERS

While the basic mechanical principles of the early modern lock were identical to the medieval lock, there is evidence that the locksmiths realized the deficiencies in security of their products. One response to this was a cynical reduction in the warding inside the mechanism, as it was only a deterrent and not an inviolable defence. If it could be defeated, why waste the valuable iron? The customer would not know. On 3 May 1740 this practice of selling ‘placebos’ had become so blatant that a complaint was lodged with the Incorporation of Hammermen by a locksmith named Thomas Richard. The complaint was, ‘against some of his brethren for exposing to sales in the market, locks that were not sufficient and made in a proper way for security against picking ...’<sup>23</sup> Richard, a locksmith with an apparent conscience, knew of the immoral practice of not including wards to fend off picks. He took pride in his work and tried to improve the standards of those of his colleagues that were not as conscientious.

On 14 May, after the locksmiths had had time to consider what rules they wanted in place to maintain the integrity of their brethren, they met with the blacksmiths at the Magdalene Chapel, ‘to take under consideration some more proper method of making locks than what hitherto is in practice to prevent the pernicious and wicked custom now in use of picking locks ...’<sup>24</sup> The problem had in the interim been addressed to the blacksmiths also, as they were at this stage allowed to do locksmith work. It was decided that

in time coming they shall make no door locks directly or indirectly, by themselves or [other], but such locks that are wholly filled in the work according as the key shall be cut ... and that for

hereafter all such locks to be made by them shall have the initial letters of their names affixed upon them in some convenient place ...<sup>25</sup>

The locks were missing wards, even though the keys were cut to look like they worked a complex mechanism. From 1740 on, locks had to have complete warding inside, with the maker’s mark stamped somewhere on the work. Richard voiced his concern that the smiths at fault might try to sneak those locks already made without warding into the market despite the new rules.<sup>26</sup> His concern was not only for the honour and interests his craft, but for ‘the country’.

Some of the locksmiths and blacksmiths did not like the idea of having the already ‘completed’ locks inspected before going to market. A debate ensued, and a motion was made that ‘locks in hand should not be altered’.<sup>27</sup> Richard protested that he could foresee ‘that the said scheme will be entirely frustrated and never thoroughly put in execution and that it must undoubtedly be the views of many to disappoint the foresaid act and resolution’.<sup>28</sup> Makers marks were eventually included on Edinburgh locks, so his plan was not completely frustrated. While this example is possibly the most effective response to lock picking, there were other responses from the incorporations as well.

#### ABERDEEN AND ‘CROOKED IRONS’

A lack of understanding of how the locks worked could be as much of a detriment as it was helpful in the process of keeping things secure. If a customer didn’t know how to open locks, but knew that the smiths did, then it was the smiths who would be under suspicion; showing the community that one had these abilities made one a suspect. To counter this, the Aberdeen Incorporation of Hammermen decided not to allow lock picking in their craft. On 19 August 1699, an entry was put into their minute books:

taking into consideration the damage and prejudice that both the said trade, and also the inhabitants, sustain by opening of locks with

crooked irons, and the *mala famas* and bad reports raised upon the blacksmiths thereanent, have unanimously strictly statute and ordained, that no person or persons presume, nor take upon hand, to directly or indirectly, of the said trade at any time hereafter to open any locks whatsoever with crooked irons or any of the like instruments ... except with the keys of the said locks (Bain 1887, 205).

The Aberdeen blacksmiths were forbidden from using what was a common and legitimate tool for the simple reason that the Incorporation wanted to preserve their professional integrity and be beyond reproach. If a customer wanted a lock open, they had to purchase a new key. The *Accounts of the Lord High Treasurer of Scotland* list a smith being paid 40 gold demies in 1488 for opening an undisclosed number of locks (Dickson 1877, 83). However, the King's Chamberlain requesting a smith to pick a lock was quite a different matter from an average customer giving his word that the lock to be picked was indeed his own property. By outlawing 'crooked irons', Aberdeen's Incorporation tried to ensure that their smiths could not unwittingly or otherwise participate in the criminal act of lock picking.

#### NETWORKS

The hammermen crafts were not the only corporate bodies to take measures in response to lock picking; the Incorporation of Goldsmiths and the merchants of Edinburgh had their own way of dealing with their shops being broken into. In a 1786 advertisement in the newspaper, *The Edinburgh Evening Courant*, after an account of one of Brodie's robberies and a description of the items taken, it was requested that, 'all Goldsmiths, Merchants, and other Traders through Scotland, may be attentive, in case any goods answering to those ... mentioned shall be offered to sale'.<sup>29</sup> If any of their colleagues were to come across goods which matched the descriptions, they were 'to enquire how the persons ... came by them, and to get them examined before a Magistrate,

and secured in prison, in case they cannot give a good account of themselves'.<sup>30</sup> They made use of networks of similar artisans and traders across the country, as well as what elements of the law were in place at this stage. On top of this, the entire craft contributed a reward of 10 guineas for information. In this way, the loss was suffered corporately rather than individually.

#### CONCLUSION

Shortly after 1750, innovations occurred which brought lock technology out of the warded age, though it would be sometime before these new mechanisms were affordable to the general public. Despite weak technology and human nature, Scotland's burghs found ways to limit the impact of the 'pernicious and wicked custom' of lock picking. Through the institutions of corporatism, security was promoted through both guild regulation and the networks of craftsmen and merchants which were formed. While the crime of lock picking no doubt happened outside of Scotland's burghs, we can see a specifically urban response through the way in which incorporations dealt with the crime. Corporatism was used to enforce the rules and acted as a quality check. It ensured that the craftsmen acted with integrity. It provided a network of sympathetic craftsmen outwith the local community, and it helped provide a liaison with the legal system. Funds were provided for the rewards when individuals gave information about crimes, helping to spread out the economic loss between craft members instead of the victim alone losing out. While some responses might have been cynical and fatalistic, such as the sale of 'placebo' locks to unwitting customers, others were proactive, attempting to outsmart the thieves who understood the basic principles of warded lock technology. These responses to the crime were unique to the urban environment, as they could only be effective within a reasonably-strong corporate framework, which was only found in the burghs.

## NOTES

- 1 ECA ED008/1/6, 10 November 1733.
- 2 There are several examples from Edinburgh. The Incorporation of Skinners at first met in the house of their deacon, until they built a convening hall in Skinners' Close (Harris 2002, 524). The Incorporation of Tailors built Tailors' Hall in 1621, while Surgeon's Hall was built in 1697 (Dingwall 1994, 136; Dingwall 1995, 59). Not all crafts had purpose-built convening halls; several continued to meet in churches. The Incorporation of Hammermen was bequeathed the Magdalene Chapel in 1563, while the wrights and masons met in Mary's Chapel (Allen 2007, 6 and ECA Housemails Taxation Book, 285). The Candlemakers, which were not a wealthy incorporation, didn't build their convening hall until 1728 (Harris 2002, 141). Whether purpose-built or inherited, all convening halls needed security mechanisms in order to secure minute books, deeds for incorporation-owned properties, confiscated goods from the markets, and cash from dues and fines, which was stored in strong boxes with multiple locks (ECA ED008/1/1–8).
- 3 The 1695 'Company of Scotland trading to Affrica and the Indies', best known for its ill-fated Darien scheme, owned at least two iron strong boxes for holding investors' money and an oak press, complete with an iron press lock, in which their subscription books were held. The chests are on display in the National Museum of Scotland, while the press can be seen at Gladstone's Land, an Edinburgh property cared for by the National Trust for Scotland.
- 4 For example, Lanark held the official stone, Linlithgow held the firloft, Edinburgh held the ell, and Stirling held the pint. Connor and Simpson 2004, 18. Official copies were purchased from these towns and used by local magistrates to check the accuracy of merchant weights and measures being used in the various burgh markets.
- 5 This practice also occurred in Germany; Regensburg, for instance, had three such iron measures mounted to the wall of the Rathaus.
- 6 This can be viewed online at the National Library of Scotland's map website: <http://www.nls.uk/maps/early/gord1647.html>.
- 7 The last two are both labelled on Rothiemay's map. St Paul's Work had been a trade school in 1619, but by 1632 it had been altered to provide a 'House of Correction' (Harris 2002, 508). In 1630, the Incorporation of Skinners had also been associated with it (Colston 1891, 86).
- 8 ECA Housemails Taxation Book, 425.
- 9 For example, Mary's Chapel, which was used by the wrights and masons, and the Incorporation of Baxters' convening hall are both shown on the Rothiemay map but neither are labelled. ECA Housemails Taxation Book, 285 and 370. See also Allen 2006.
- 10 Allen 2006, and ECA Housemails Taxation Book, 366.
- 11 A similar example can be found in the minute books of the Incorporation of Hammermen, when their treasurer, who was a blacksmith, received the contract for repairing their meeting house's weathervane. ECA ED008/1/6, 3 February 1739.
- 12 *Edinburgh Evening Courant*, 1786, in Roughead 1921, 251.
- 13 Smith's declaration is quoted in Gibson 1993, 45.
- 14 *Edinburgh Evening Courant*, 1786, in Roughead 1921, 251–2.
- 15 Several of the surviving picks have broken bits.
- 16 NMS MJ 98.1–.18, MJ 99.1–.6, K2002.328.
- 17 National Museum of Antiquities of Scotland 1892, MJ 98–9.
- 18 On a pipe key, the stem, or main body of the key, is quite literally a hollow pipe. The pipe fits over a post inside the lock's key hole which would stop most other keys from entering the lock. This adds one more obstacle for security.
- 19 As elaborated on below, a stock lock is a wooden box with metal parts mounted inside. Some stock-lock keys have a distinct shoulder, located midway on the bit, as opposed to above it.
- 20 A press is a cupboard. When a press lock is fitted with a back spring bolt, the spring and bolt are one piece of steel, making the lock a fairly uncomplicated mechanism.
- 21 NMS MJ 98.1–.18, MJ 99.1–.6, K2002.328.
- 22 NMS MJ 9.
- 23 ECA ED008/1/7, 34.
- 24 ECA ED008/1/7, 37–8.
- 25 ECA ED008/1/7, 37–8.
- 26 ECA ED008/1/7, 37–8.
- 27 ECA ED008/1/7, 37–8.
- 28 ECA ED008/1/7, 37–8.
- 29 *Edinburgh Evening Courant*, 1786, in Roughead 1921, 252.
- 30 *Ibid*, 252.

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