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**Spectacles of Security: Lock-Picking Competitions and the Emergence of the British
Security Industry in the Mid-Nineteenth Century**

David Churchill

[This article is forthcoming in the *History Workshop Journal*.]

Despite decades of research on the history of crime, policing and punishment, historical work on security remains in its infancy. To this neglected field, this article contributes a detailed analysis of a series of celebrated lock-picking competitions involving rival, brand-name locksmiths in mid-nineteenth-century Britain. These contests provided a spectacular forum for marketing new security commodities, which promised to serve as a uniquely credible means of demonstrating the utility of these technically advanced products. In practice, the competitions were less effective in improving security product design, or in reinforcing consumer confidence in security devices, than many firms and observers had hoped. Nonetheless, the competitions captured the imagination of a mid-Victorian public increasingly preoccupied by the transformative potential of technology, and by the emerging landscape of international economic competition. In particular, this article argues that lock-picking contests played a significant role in the commodification of security and the emergence of the security industry in the 1850s and 1860s. It thus subjects to critical scrutiny these important aspects of modern social development, which have left a lasting and troubling imprint on the contemporary world.

Spectacles of Security: Lock-Picking Competitions and the Emergence of the British Security Industry in the Mid-Nineteenth Century¹

David Churchill

University of Leeds

At the Great Exhibition of 1851, lock-picking competitions first captured the imagination of the British public. These contests pitted rival, brand-name locksmiths against each other in an effort to circumvent the leading security devices of the day, typically before a crowd of onlookers. As such, they presented a spectacle of security – an opportunity for those present to witness the most sophisticated locks not resting dormant, but actually under attack from a skilled and determined mechanic taking the part of the criminal. The most celebrated of these lock-pickers was Alfred Charles Hobbs, who first arrived in Britain as a representative of the American lock-making firm Day & Newell, before rising to international acclaim by picking two locks previously considered inviolable: Chubb & Son’s ‘detector lock’, originally patented in 1818; and Bramah & Co.’s famous challenge lock, first patented in 1785. The latter had stood proudly in the firm’s Piccadilly shop window for decades, alongside a notice offering two hundred guineas to anyone who could devise an implement with which to pick it. Hobbs’s conquest of these two ‘unpickable’ locks captivated the press: one newspaper even asserted that no feature of the Exhibition had attracted greater public attention than this ‘celebrated lock contest’.² Yet the ‘Great Lock Controversy’, as it became known, was only the most famous of a series of lock-picking challenges and disputes which issued from the emerging security industry of the 1850s and 1860s.

The history of the security industry – in Britain as elsewhere – remains largely unwritten. Focusing predominantly on state systems of crime control, historians have barely

¹ An earlier version of this paper was presented at the Economic History Society Conference at the University of Warwick, 30 March 2014; I am grateful to the attendees for their comments and suggestions. The Economic History Society generously funded the research on which this article is based. For assistance with sources, many thanks to Richard Wiltshire and his colleagues at the London Metropolitan Archives, and to the volunteers on the ‘Chubb Collectanea’ cataloguing project. Thanks also to Eloise Moss, Richard Ward and the members of the editorial collective for insightful comments on earlier drafts.

² London Metropolitan Archives, Chubb & Son archive, CLC/B/002/10/01/003/101 (unidentified newspaper, undated [1851]). The fullest analysis of this episode is David L. Smith, ‘Under Lock and Key: Securing Privacy and Property in Victorian Fiction and Culture’, unpublished Ph.D. thesis, Vanderbilt University, 2007, chapter 3.

touched upon market responses to crime.³ However, recent work has begun to shed light on the history of security more broadly defined: Eloise Moss and David Smith have examined the place of security firms within British culture, and how these companies influenced popular understandings of criminality.⁴ As such, they have revealed the deep historical roots of anxieties surrounding insecurity, and highlighted the role of security entrepreneurs in shaping commonplace perceptions of risk, responsibility and prevention. But historians have yet to embark upon any broader exploration of security enterprise as a significant aspect of modern social development. For instance, an important theme which the cultural histories noted above tend to gloss over is the commercial logic which informed the provision of security products and services. Thus, despite unravelling the discourse surrounding the Great Lock Controversy in minute detail, Smith never explains why lock-picking competitions took place, nor does he explore their material consequences. Indeed, he purposely evades the latter question by dubiously asserting that the Controversy ‘had more symbolic than real meaning’.⁵ By contrast, this article contributes to a political economy of modern security, grounded in a critical analysis of the mechanisms through which the social power of the security industry was constituted historically.

What follows thus examines the rise and fall of the lock-picking competition in terms of its commercial rationale, cultural meanings and social consequences. It draws mainly upon sources in the Chubb & Son lock and safe company archive, particularly its scrapbook collection, the ‘Chubb Collectanea’.⁶ It first explains why lock-picking competitions flourished in terms of the marketing strategies of premium lock-makers, before situating public interest in competitive lock-picking in its cultural contexts. Next, it exposes the shortcomings of the competition as a reliable arbiter of security product quality, and as a motor of product development. Lastly, it exposes the cumulative impact of lock-picking contests, both upon the commercial fortunes of lock-making companies, and upon changing attitudes towards security, technology and the market. The nineteenth century witnessed the transition towards a modern system of security provision, increasingly mediated by products

³ See further David C. Churchill, ‘Rethinking the State Monopolisation Thesis: The Historiography of Policing and Criminal Justice in Nineteenth-Century England’, *Crime, Histoire et Sociétés* 18:1, 2014, pp.131-152.

⁴ Eloise Moss, ‘Burglary Insurance and the Culture of Fear in Britain, c.1889-1939’, *The Historical Journal* 54:4, 2011, pp.1039-1064; Eloise Moss, ‘Cracking Cribs: Representations of Burglars and Burglary in London, 1860-1939’, unpublished D.Phil. thesis, University of Oxford, 2013, chapter 6; Smith, ‘Lock and Key’; David L. Smith, ‘Securing the Englishman’s Castle: Situational Crime Prevention in the Nineteenth Century’, *Victorian Literature and Culture* 40:1, 2012, pp.263-285.

⁵ Smith, ‘Lock and Key’, p.x.

⁶ Although selective, these scrapbooks include the bulk of press comment located independently in Smith, ‘Lock and Key’, chapter 3.

subject to continual technological development, and delivered through the market by assertive, brand-name producers. Lock-picking competitions played an important role in this development, and hence they illuminate a key chapter in the history of modern security.

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The security industry developed out of advances in lock-making made late in the eighteenth century. Those locks hitherto in general use were constructed with fixed guards or wards – hence known as ‘warded locks’ – the shape of which corresponded to the cut of the matching key-bit. By the late eighteenth century, these locks were increasingly deemed to provide inadequate protection. As locksmiths worked from a limited range of ward patterns, duplication was prevalent, meaning that multiple keys would operate the same lock. Additionally, warded locks were vulnerable to picking by two methods. First, the wards were easily ‘mapped’ from the keyhole (for example, by inserting a piece of wax against a key blank), to provide the pattern for making a duplicate key. Second, simple hook-shaped lock-picks could effectually bypass the wards entirely, and so act directly on the bolt.⁷ An alternative to warded models emerged with the development of ‘tumbler’ or ‘lever’ locks, which incorporated multiple, moving guards. In particular, Barron’s lock (patented in 1778) provided the basis for a host of subsequent design modifications and refinements. By the early nineteenth century, a small collection of firms was engaged in the production of locks on this new principle, and the most successful makers (Bramah and Chubb) already approached the status of household names.⁸

Lock-picking contests arose within this advanced section of the lock trade – sometimes designated the ‘patent’ lock trade – early in the nineteenth century (table one). Joseph Bramah’s 200-guinea challenge, which attracted only one (unsuccessful) contestant before 1851, propelled his firm to prominence, while Charles Chubb traded upon a convicted housebreaker frustrated attempt to pick the detector lock in 1824.⁹ Yet competitive lock-picking developed into a more regular system from 1851, underwritten by two important

⁷ See Eric Monk, *Keys: their History and Collection*, Aylesbury, 1974, pp.16-18.

⁸ See Smith, ‘Lock and Key’, pp.39, 42-43; Ian McNeil, *Joseph Bramah: a Century of Invention, 1749-1851*, Newton Abbot, 1968, pp.54-55; David M. Higgins, “‘Forgotten Heroes and Forgotten Issues’: Business and Trademark History during the Nineteenth Century”, *Business History Review*, 86, summer 2012, pp.269-270.

⁹ Garry Hogg, *Safe Bind, Safe Find: the Story of Locks, Bolts and Bars*, London, 1961, pp.78-79.

developments. The first was the emergence of the skilled, technically proficient burglar as among the principal figures of fear in the ‘criminal class’. While the prevalence of burglary and housebreaking had long prompted public concern, by the mid-nineteenth century the burglar was becoming emblematic of a certain kind of ‘professional’ criminality, particularly as interest in other archetypal offenders (notably the juvenile pickpocket) diminished.¹⁰ The second development was the formation of the international exhibition movement, which vitally invigorated the lock-picking spectacle, and lent it an international dimension. Following Hobbs’s exploits at the Great Exhibition, further (less famous) contests followed, most significantly John Goater’s much-disputed picking of a Hobbs lock in 1854, and Hobbs’s unsuccessful attempt to pick Edwin Cotterill’s ‘climax detector’ lock that same year. The format of individual competitions varied considerably, yet most were held in public, by prior arrangement between the rival lock-makers. Rewards were sometimes offered as an inducement to challengers, and as an assertion of the maker’s confidence in his product. Generally, the object of a competitions was specifically to *pick* the lock – to release the bolt without damaging the mechanism – though violent modes of lock-breaking (employing drills and gunpowder) were incorporated from the late 1850s.

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¹⁰ See William M. Meier, *Property Crime in London, 1850-Present*, Basingstoke, 2011, pp.18-21; Smith, ‘Lock and Key’, pp.9-10, 44-45; Moss, ‘Burglary Insurance’, pp.1039-1042; David Churchill, ‘The Security Industry and the Construction of the Professional Criminal in Victorian and Edwardian Britain’ (unpublished paper). On the eclipse of the pickpocket, see J.J. Tobias, *Crime and Industrial Society in the 19th Century*, London, 1967, pp.127-130; Heather Shore, ‘Cross Coves, Buzzers and General Sorts of Prigs: Juvenile Crime and the Criminal “Underworld” in the Early Nineteenth Century’, *The British Journal of Criminology* 39:1, 1999, pp.21-22.

Date	Location	Product	Challenger	Outcome/Details
1817	London	Bramah challenge lock	Unidentified mechanic	Challenger unsuccessful after a week-long trial
1824	Portsmouth	Chubb detector lock	Unidentified convict confined to the hulks	Challenger unsuccessful after several weeks
1832	Wolverhampton	Chubb detector lock	Thomas Hart	Hart unsuccessful after about seven hours
1833	Liverpool	Chubb detector lock	William Wallace	Wallace unsuccessful
1834	London	Parsons balance tumbler lock	Thomas Cornell; William Hartill; Joseph Dye	All challengers unsuccessful
1851	London	Chubb detector lock	Alfred Charles Hobbs	No prior agreement; Hobbs first opened the lock in private, before repeating the demonstration before a public audience; Hobbs widely credited with fairly picking the lock within thirty minutes, yet Chubb & Son contested this
1851	London	Bramah challenge lock	Alfred Charles Hobbs	Picking in private; Hobbs successful after fifty-one hours
1851	London	Day & Newell bank lock	Mr Garbutt	Garbutt defeated after thirty days

1852	-	Day & Newell bank lock	Jeremiah Smith ¹¹	Fail to agree terms
1853	London	Saxby lock	Alfred Charles Hobbs	Held before representatives of the Society of Arts; Hobbs successful after just a few minutes
1854	London	Hobbs 'American' lock	John Goater (Chubb's foreman)	No prior agreement; Goater publically picked one of Hobbs's locks, yet Hobbs claimed it was a cheap model, and that he had already publicly disclosed the flaw in the design (and rectified it) prior to Goater's attempt
1854	Manchester	Cotterill climax detector lock	Alfred Charles Hobbs	Hobbs unsuccessful within the 24-hour time limit
1854	Sydenham	Parnell lock	John Goater (Chubb's foreman)	No prior agreement; Goater picked the lock before a crowd at the Crystal Palace; Parnell asserted that it must have been tampered with, and won the resulting libel case against Goater at Queen's Bench
1859	Birmingham	Cotterill climax detector lock	Alfred Charles Hobbs	No prior agreement; picking in private; Hobbs claimed to have picked the lock, yet Cotterill asserted that the lock was of poor quality, and was accessible prior to the test
1860	Burnley	George Price and Milner safes	Price and Milner	Neither lock picked; widely agreed that Milner's safe was blown open with gunpowder, while Price's safe survived, though the relative quality of each was disputed; one of Price's obsolete models was later blown apart, fatally injuring a spectator
1867	Paris	Chatwood and	Chatwood and	Neither lock picked; both safes broken open by force, yet their relative merits were

¹¹ Besides Smith, *The Observer* reported that seven further competitors had taken up Hobbs's challenge (CLC/B/002/10/01/004/031D (*The Observer*, undated [1852])).

		Herring safes	Herring	much disputed; the contest jury broke up without agreement amidst allegations of corruption
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Table one: selected lock and safe challenges involving British manufacturers, 1817-1867. Sources: CLC/B/002/10/01/002-008; George Price, *A Treatise on Fire & Thief-Proof Depositories and Locks and Keys*, London, 1856 (accessed via Google Books), chapters 15 and 17.

In order to flourish, lock-picking competitions had to make commercial sense. Firms making patent locks on the new principle faced competition from the established lock-making industry (centred on the Black Country), which continued to produce the technically inferior – yet far cheaper – warded lock. Warded locks remained widespread throughout the nineteenth century (especially on domestic premises) due to this competitive cost advantage.¹² Hence, the major patent locksmiths promoted their products on grounds of quality, and commonly directed their marketing materials to commercial proprietors with substantial movable property (notably bankers, jewellers and merchants), rather than to private householders.¹³ In particular, they had two core marketing priorities. First, they had to convince potential consumers that their product was functionally effective – that the lock really was ‘unpickable’. Secondly, they had to affirm the superiority of their product over its rivals – in other words, that it was more *definitely* unpickable than others on the market. These objectives were crucial because consumers could find no guarantee, before purchasing, that a lock would work as promised.¹⁴ Advertisers used various techniques to try to drive home this message: they referred to patents, cited approving testimonials, and reproduced news reports which reflected well upon the product. However, print advertising was a difficult medium through which to instil public confidence in consumer goods. As several historians have argued, ‘puffery’ – the inflated claims widely made by the promoters of various goods – had deleterious consequences for public trust in nineteenth-century advertising.¹⁵ Such scepticism made alternative, exhibitionist modes of marketing more attractive, for locks as for other technological novelties.¹⁶ However, unlike most cutting-edge devices, one cannot simply exhibit or ‘demonstrate’ a lock to prove its security: a lock cannot be seen to work in isolation, it cannot ‘speak for itself’. Rather, its utility consists *in*

¹² Monk, *Keys*, p.41, claims that warded locks remained predominant until the twentieth century, though the basis for this claim is unclear.

¹³ Note architects and builders constituted a trade market for security products, which was also the target of much lock and safe marketing.

¹⁴ Hence locks were, in marketing jargon, ‘experience’ goods: see Roy Church, ‘New Perspectives on the History of Products, Firms, Marketing, and Consumers in Britain and the United States since the Mid-Nineteenth Century’, *The Economic History Review*, new series, 52:3, August 1999, pp.414-15.

¹⁵ T.R. Nevett, *Advertising in Britain: a History*, London, 1982, pp.111-13, 119-20; Avner Offer, ‘The Mask of Intimacy: Advertising and the Quality of Life’, in Avner Offer (ed.), *In Pursuit of the Quality of Life*, Oxford, 1996, p.215; Roy Church, ‘Advertising Consumer Goods in Nineteenth-Century Britain: Reinterpretations’, *The Economic History Review*, new series, 53:4, November 2000, pp.633-34.

¹⁶ See Ben Marsden and Crosbie Smith, *Engineering Empires: a Cultural History of Technology in Nineteenth-Century Britain*, Basingstoke, 2005, especially chapters 2 and 5.

interaction – in frustrating human attempts to manipulate it.¹⁷ For this reason, the lock-picking competition emerged as the principal form of exhibitionist marketing in this sector.

In theory, lock-picking competitions provided an open, transparent forum in which the relative merits of different products were straightforwardly established. By simulating the risk that locks were designed to protect against (attack by skilled burglars), competitors promised to present a uniquely credible vindication of the lock's security, and so circumvent charges of puffery. Furthermore, the format of competitions was designed to ensure that trials were conducted rigorously and fairly. Rigour was guaranteed by the commercial interests of the competing parties, with each product tested by a rival manufacturer (or his workmen), with a keen interest in picking it. Meanwhile, the lock-picker's conduct was regulated by measures to ensure fair-play: agreements stipulating the terms of contests were generally completed beforehand, and sometimes expert witnesses (typically locksmiths or engineers, nominated by each party) were appointed as jurors or umpires, to ensure the agreement was honoured. Lastly, the lock was tested by a skilful operator – a practical locksmith – whose abilities were analogous to the most 'expert' of thieves.¹⁸ In these ways, lock-makers tailored lock-picking competitions to their marketing strategy.

Commercial motivations were paramount when considering whether to engage in particular challenges. For example, Charles Chubb initiated contests in the early 1830s in order to counter rumours that local locksmiths had picked his detector lock, and so to defend his product's position in the market.¹⁹ The publicity of the lock-picking spectacle enabled Chubb to claim the public test as definitive proof of his product's inviolability, and thus to discredit rumours of private pickings. The need for commercial gain also applied to attempts to pick a rival's lock. A poster advertising Thomas Parsons's 1000-guinea challenge of 1837 contains a revealing annotation, presumably by Chubb: 'it is worth no persons [sic] while to try them [i.e., to attempt to pick Parsons's locks] for people will not buy them.'²⁰ The incentive to compete was perhaps even greater for lesser-known manufacturers: by exposing household names to renewed scrutiny, they could break into this heavily branded trade. For

¹⁷ This contrasts with *fire-proof* safes, which were effectually demonstrated in non-competitive shows and exhibitions at this time.

¹⁸ Still, there remains something peculiar locksmiths taking the part of the burglar, and subjecting the wares even of a rival manufacturer to such sustained destructive effort. This aspect of the competitive format perhaps also reflects mid-Victorian confidence in the forward march of technological progress, or at least the lock-makers' prospects for eventual triumph. See further below.

¹⁹ CLC/B/002/10/01/002/038G (*Wolverhampton Chronicle*, 3 May 1832); CLC/B/002/10/01/002/043 (Chubb handbill distributed in Liverpool, 24 January 1833).

²⁰ CLC/B/002/10/01/002/058A (Parsons handbill distributed in Wolverhampton, 31 October 1837).

Wolverhampton-based safe-maker George Price – who bemoaned the bias towards well-known firms in the London press – exhibitions were ‘the greatest levellers of all the inherited distinctions of the manufacturing classes’, as there ‘the public have the opportunity of comparing the articles exhibited by rival makers with each other, and of drawing their own conclusions accordingly.’²¹ He understood that public competitions carried just the same potential, and so doggedly pursued his arch-rival, Milner & Son, with repeated challenges to a public test of their safes in the 1850s.²²

Finally, lock-makers were attracted to competitions by the considerable public interest which they generated. As spectacles, they were keenly witnessed,²³ with onlookers sometimes actively participating: when Michael Parnell removed his lock from the Crystal Palace in 1854, to deprive Goater (who was Chubb’s foreman) of another opportunity to pick it, he was greeted by ‘the derisive shouts of a crowd of people.’²⁴ However, such episodes notwithstanding, the public were engaged in the competitions primarily through the press. One year after the event, journalists could assert that ‘Most newspaper readers must be more or less familiar with the lock-controversy of 1851’, while another commentator claimed in 1854 that talk of the Hobbs-Goater controversy ‘appears likely to absorb the question of war [in Crimea].’²⁵ Evidence of public interest in the competitions comes largely from such statements, issued by journalists themselves, as there is seemingly little mention of them in other documents (except for specialist publications).²⁶ Yet there are at least hints of a broader popular appeal. For instance, in the early 1850s, Bramah & Co. were apparently forced to withdraw from their shop display an improved lock – presented as a renewed challenge to Hobbs – due to the volume of passers-by making ‘idle applications’ to pick it.²⁷ In order to understand why the competitions attracted such attention, one must explore their cultural resonances.

²¹ ‘A Young Man from the Country’ [George Price], *The Partiality of the London Press*, Wolverhampton, undated [1863], pp.8-10, quotation at p.11, available in CLC/B/002/10/01/008/105. Price welcomed the International Exhibition of 1862 as a means of circumventing press ‘favouritism’ towards metropolitan manufacturers: CLC/B/002/10/01/008/089A (George Price leaflet, 1862).

²² See George Price, *A Treatise on Gunpowder-Proof Locks, Gunpowder-Proof Lock-Chambers, Drill-Proof Safes, &c., &c., &c.*, London, 1860, pp.72-78.

²³ See for example CLC/B/002/10/01/002/042A (*Wolverhampton Chronicle*, 9 May 1832); CLC/B/002/10/01/002/042D (*Wolverhampton Chronicle*, undated [May 1832]).

²⁴ CLC/B/002/10/01/005/020C (*Morning Advertiser*, 12 August 1854).

²⁵ CLC/B/002/10/01/004/043 (*Chambers’s Edinburgh Journal*, 25 December 1852), p.407; CLC/B/002/10/01/004/086D (unidentified newspaper, undated [1854]).

²⁶ A recent, four-volume collection of material related to the Great Exhibition contains no reference to the Great Lock Controversy: Geoffrey Cantor (ed.), *The Great Exhibition: A Documentary History*, London, 2013.

²⁷ *The Bramah Locks*, London, 1854, p.17, available in CLC/B/002/10/01/004/047B.

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Lock-picking contests elicited considerable press comment in large part because they keyed into the popular fascination with technology. Against the backdrop of profound transformation in economic and social life, and Britain's assumption of international industrial ascendancy, technological enthusiasm was a major force in the mid-Victorian period, breeding the cult of the inventor and engineer.²⁸ Matters of technical and scientific interest stood among the principal topics of the day, for audiences across the social spectrum.²⁹ This culture proved highly receptive to lock-picking competitions: the weekly press provided extensive design reports on the relevant models, tailored to a readership already at ease with examining the technical specifications of manufactures.³⁰ The modern lock was well suited to bear such attention, the intricacy of its moving parts making it ripe for mechanical analysis (and its smallness making it somehow especially appealing). Of course, there were limits to what readers could bear: reviewing Chubb's display at the International Exhibition of 1862, one newspaper concluded that a description of Chubb's banker's lock, 'however minute, would be of little interest to our readers on account of the unavoidable technicalities needed'.³¹ Nevertheless, lock-picking competitions clearly fed off of the broader press and popular interest in technology at this time.

Still more absorbing than the construction of locks was the feat of picking them. The fact that contemporaries understood the modern lock (with its moving parts) as a 'machine' imbued the competitions with the intrigue of a battle between mechanical skill and the material product of that skill. The act also carried an air of mystery, never more so than in Hobbs's 16-day struggle against the Bramah lock, which was conducted behind closed doors. The *Illustrated London News* – which had previously detailed Hobbs's tactics in picking Chubb's detector lock – extensively covered this trial of mechanical skill, providing

²⁸ Christine MacLeod, *Heroes of Invention: Technology, Liberalism and British Identity, 1750-1914*, Cambridge, 2007. See also Martin J. Wiener, *English Culture and the Decline of the Industrial Spirit 1850-1980*, London, new edition 1992, pp.27-30.

²⁹ Bernard Lightman, 'Science and Culture', in Francis O'Gorman (ed.), *The Cambridge Companion to Victorian Culture*, Cambridge, 2010, pp.15-17; Iwan Rhys Morus, 'Manufacturing Nature: Science, Technology and Victorian Consumer Culture', *The British Journal for the History of Science* 29:4, December 1996, pp.422-24.

³⁰ See for example CLC/B/002/10/01/003/098-099 (*Illustrated London News*, 6 September 1851). See also Smith, 'Lock and Key', pp.166-68.

³¹ CLC/B/002/10/01/009/056 (*Illustrated News of the World*, 13 December 1862).

illustrations of Hobbs's bespoke lock-picking apparatus, and carefully explicating his method.³² As exemplars of ingenuity and determined, competitive effort, lock-picking contests appealed to a technically-attuned public. Attention again focused on Hobbs in 1854, when he tried in vain to pick Edwin Cotterill's climax detector lock. The lock-picking implement produced on this occasion was formed of a hoop bearing twelve pieces of wire around a central spring; each wire corresponded to a slider in the lock, and each could be operated independently, so as to apply the unique degree of pressure to each individual slider required to operate the mechanism. The *Manchester Guardian* noted that this 'very ingenious construction' struck those present with 'surprise and admiration.' However, critical to the lock-picking spectacle was Hobbs's *use* of this remarkable contrivance – his showmanship:

In pressing inwards any wire, Mr. Hobbs placed the handle between his lips, and let the end rest against a tooth. The object of this was to test precisely the amount of pressure necessary to force back any given slide, and especially to determine the point at which the effect of pressure terminated. For this purpose, a tooth would be more sensitive than the fingers, as a vibration would be sensibly felt by the tooth the instant resistance was met with.³³

Such tortuous manipulation of tools and body lent Hobbs's exploits a certain panache, which excelled that of his rivals, and quickly won him considerable celebrity: by October of 1851, the *Morning Chronicle* declared that his accomplishments had been so voraciously devoured by the public that he had become 'an article of general property'.³⁴

The lock-picking competition also appealed thanks to its cultural familiarity. A rich culture of scientific display had already sensitized broad sections of British society to such a spectacle.³⁵ Furthermore, much like (for instance) spectacular electrical demonstrations, lock-picking competitions augmented both the locksmith's personal standing (as a mechanical expert) and the repute of his inventions.³⁶ This context also explains the ready resort to talk of

³² CLC/B/002/10/01/003/098-099 (*Illustrated London News*, 6 September 1851).

³³ CLC/B/002/10/01/005/008A (*Manchester Guardian*, undated [April 1854]).

³⁴ CLC/B/002/10/01/004/013A (*Morning Chronicle*, 4 October 1851).

³⁵ Joe Kember, John Plunkett and Jill A. Sullivan (eds), *Popular Exhibitions, Science and Showmanship, 1840-1914*, London, 2012.

³⁶ Iwan Rhys Morus, *Frankenstein's Children: Electricity, Exhibition and Experiment in Early Nineteenth-Century London*, Princeton, 1998, pp.92-98; Iwan Rhys Morus, "More the Aspect of Magic than Anything Natural": the Philosophy of Demonstration', in Aileen Fyfe and Bernard Lightman (eds), *Science in the Marketplace: Nineteenth-Century Sites and Experiences*, Chicago and London, 2007, pp.353-54. See also Mark Steadman, 'Objects and Observers: Telecommunications, the Nineteenth-Century International Exhibition and the Public', *International Journal for the History of Engineering and Technology* 80:2, July 2010, pp.237-38.

‘the science of lock-picking’ in commentary on the competitions³⁷ Some contestants – themselves caught up in the culture of ‘scientific’ display and technological enthusiasm – exploited this association between lock-picking and science, forging for themselves a public persona more akin to an experimenter than an entrepreneur.³⁸ Thus, upon arrival to meet Cotterill’s challenge in 1854, Hobbs declared that he had come, ‘to solve a great mechanical problem’, before proceeding to instruct the assembled crowd in his method.³⁹ This ‘science’ of lock-picking was the product of a culture in which science and technology intermingled closely on a public stage.⁴⁰

The context of international economic competition was a further factor in generating interest in lock-picking competitions at mid-century. Despite the grand façade of imperial self-confidence, the Great Exhibition was founded on an underlying sense of unease regarding the relative quality of British manufactures and the sustainability of Britain’s global industrial supremacy.⁴¹ Set alongside recent American achievements in naval vessels, reaping machines and firearms, the picking of locks previously considered impregnable threatened further to undermine British confidence in its industrial output.⁴² Keen to bolster embattled national pride, *The Builder* called for the Day & Newell lock to be subject to a similar trial: ‘Is there no public-spirited burglar in London that [sic] will come forward for the honour of his country and a round sum of money?’⁴³ While sections of the press – reluctant to admit defeat at the hands of an American – hesitated to verify Hobbs’s accomplishments, reactions were more complex than this, as we have seen.⁴⁴ However, the tendency of the press to defend national honour reasserted itself strongly in 1854: Goater’s picking of one of Hobbs’s locks was thus greeted as a triumphant victory for ‘John Bull’ over ‘Yankeedom’.⁴⁵ An outpouring of patriotic comment constituted a kind of collective self-reassurance regarding the viability of British locks – and by extension its manufactures at large – in both domestic

³⁷ See for example CLC/B/002/10/01/005/047 (*Bankers’ Magazine*, October 1851).

³⁸ See also Marsden and Smith, *Engineering Empires*, p.235.

³⁹ CLC/B/002/10/01/005/001H (*Manchester Weekly Advertiser*, 29 April 1854).

⁴⁰ See Morus, ‘Manufacturing Nature’, pp.433-34. Parsons’s challenge of 1834, which was held at the Adelaide Gallery in London, literally occupied the same stage as popular scientific shows.

⁴¹ Jeffrey A. Auerbach, *The Great Exhibition of 1851: a Nation on Display*, New Haven and London, 1999, chapter 1.

⁴² CLC/B/002/10/01/003/100A (*The Builder*, 6 September 1851); CLC/B/002/10/01/004/013A (*Morning Chronicle*, 4 October 1851); CLC/B/002/10/01/004/086D (unidentified newspaper, undated [1854]). See also D.L. Burn, ‘The Genesis of American Engineering Competition, 1850-1870’, in S.B. Saul (ed.), *Technological Change: the United States and Britain in the Nineteenth Century*, London, 1970, pp.77-98; John R. Davis, *The Great Exhibition*, Stroud, 1999, pp.198-99.

⁴³ CLC/B/002/10/01/003/100A (*The Builder*, 6 September 1851), also cited in Smith, ‘Lock and Key’, p.182.

⁴⁴ CLC/B/002/10/01/003/110C (*The Times*, 4 September 1851); CLC/B/002/10/01/005/048 (leaflet, undated [1852]). See also Smith, ‘Lock and Key’, p.179.

⁴⁵ CLC/B/002/10/01/004/086A (unidentified newspaper, undated [1854]).

and export markets.⁴⁶ In fact, there were good grounds for disputing Goater's achievement. Hobbs was quick to point out that that his lock was picked only after he had himself publically acknowledged faults in the design; moreover, the article in question was not Hobbs's celebrated bank lock, but a cheaper model, designed for common drawers and tills.⁴⁷ The fact that most commentators rode roughshod over these details signals their eagerness to mobilize the patriotic potential of a simpler narrative.

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While lock-picking competitions promised to provide a transparent forum through which to establish the security of the various models, in practice the outcome of individual competitions was anything but transparent. The result of many contests was hotly disputed, producing no clear winners and losers. There were several plausible grounds for challenging an unfavourable outcome. Firstly, while most contests were public spectacles, a few were conducted in private, without any objective adjudication, breeding suspicion regarding the fairness of proceedings.⁴⁸ Given that public demonstration or independent verification was vital to validating private knowledge,⁴⁹ private pickings threatened to undermine public trust in the competitive process. Indeed, one must ask why lock-makers would engage in such trials – the results of which were bound to be disputed – were they not seeking to circumvent the terms of engagement stipulated for a mutually-agreed contest. Secondly, where prior arrangements between the competitors were lacking, the provenance of the lock under trial was open to question, for the suggestion that the lock-picker had prior access to it fuelled suspicion that he may have interfered with its internal arrangement.⁵⁰ Thirdly, again where

⁴⁶ CLC/B/002/10/01/004/096 (*Mechanics' Magazine*, 4 March 1854); CLC/B/002/10/01/004/095B (*Wolverhampton Chronicle*, 1 April 1854). Goater himself purposefully presented the contest in patriotic terms: CLC/B/002/10/01/004/086B (*Morning Advertiser*, 27 February 1854); CLC/B/002/10/01/004/088C (*Daily News*, 3 March 1854).

⁴⁷ CLC/B/002/10/01/004/088A (*The Times*, 1 March 1854).

⁴⁸ See for example CLC/B/002/10/01/007/108E (*Midland Advertiser and Birmingham Times*, undated [February 1859]).

⁴⁹ See Martin Willis, *Mesmerists, Monsters and Machines: Science Fiction and the Cultures of Science in the Nineteenth Century*, Kent, 2006, pp.130-32.

⁵⁰ See for example CLC/B/002/10/01/003/063A (*Morning Post*, 6 August 1851); CLC/B/002/10/01/005/020A (unidentified newspaper, 12 August 1854); CLC/B/002/10/01/007/073A (*Midland Advertiser and Birmingham Times*, undated [1859]). Chubb & Son remained sceptical about their defeat to Hobbs, partly on these grounds, for decades to come – as late as 1890, the firm was engaged in correspondence with the press, alleging inaccuracies in a retrospective on Hobbs's exploits: CLC/B/002/10/01/045/010a-b (*Answers*, 6 September 1890, with manuscript correspondence).

the defending party had not consented to the contest, the quality of the lock itself provided grounds for dispute, as we saw in the case of the Hobbs-Goater controversy.⁵¹

Yet ambiguity surround the result was not confined to such special circumstances; rather, it was endemic in the competitive system. The problem was that competitions were patently *artificial* scenarios, providing a simulation of burglary and security far removed from real-world conditions. For example, Hobbs took 16 days over picking the Bramah lock, during which time he enjoyed free and exclusive access to it, retaining an instrument in the keyhole throughout – conditions which, Bramah & Co. observed, ‘could only be afforded to an experimentalist.’⁵² Of course, if a lock survived a trial on such generous terms, its reputation was thereby enhanced; yet locks picked under such conditions were not necessarily deficient for practical purposes. Several observers made this point once the Bramah lock was eventually undone, affirming (Hobbs’s achievement notwithstanding) the ‘*practical invulnerability of the lock*.’⁵³ More generally, George Price asserted that several of the locks picked in the 1850s were in fact tolerably secure.⁵⁴ Yet if competitions tended to provide an overly rigorous test of lock-picking, their exclusion of other modes of criminal entry resulted in an insufficiently rigorous simulation of burglary. Referring to the Hobbs-Goater controversy, one journalist wryly observed that ‘Housebreakers...do not interest themselves much in the matter. These nocturnal operators find it as easy to pick a Chubb or a Hobbs, *with a jemmy*, as the commonest description of lock’.⁵⁵ Similarly, an authority on locks cautioned his readers that ‘thieves do not always confine themselves to the condition of a challenge, in which force and injury to the lock are of course prohibited; and if a lock can be easily opened by tearing out its entrails, it is of very little use to say that it would have defied

⁵¹ For a further example, see CLC/B/002/10/01/007/106D-F (*Midland Advertiser and Birmingham Times*, 12 February 1859).

⁵² CLC/B/002/10/01/003/109C (*The Times*, 5 August 1851). See also Smith, ‘Lock and Key’, p.164.

⁵³ *Morning Chronicle*, 8 September 1851, cited in *Bramah Lock Controversy*, p.9 (original emphasis); CLC/B/002/10/01/005/047 (*Bankers’ Magazine*, October 1851), pp.572, 577. See also the report of the Great Exhibition’s jury on locks, cited in Price, *Depositories*, p.531. Relatedly, several commentators considered Hobbs’s lock-picking talents so exceptional that his tests were unsuitable as a proxy even for professional burglars: see *Report of the Proceedings of the Banking Institute*, London, 1852, pp.25 (original emphasis), 27, available in CLC/B/002/10/01/004/077; Granville Sharp, *The Gilbert Prize Essay on the Adaptation of Recent Discoveries and Inventions in Science and Art to the Purposes of Practical Banking*, London, third edition 1854 (accessed via Google Books), p.313.

⁵⁴ CLC/B/002/10/01/007/108B-D (*Midland Advertiser and Birmingham Times*, 16 February 1859).

⁵⁵ CLC/B/002/10/01/004/086D (unidentified newspaper, undated [1854]), emphasis added.

all the arts of polite lock-picking'.⁵⁶ Clearly, lock-picking competitions did not provide the transparent demonstration of security which consumers would have valued.

Unsurprisingly, most contemporaries struggled to divine the moral of a lock-picking contest. As one journalist noted: 'To pick a lock is an act described in three small words, yet the discussion [surrounding the Great Lock Controversy] shewed [sic] that different persons attached different meanings to the feat so designated.'⁵⁷ With the competitive system failing to provide a clear guide to relative product quality, more conventional authorities – advertisers and journalists – assumed this task. Many in the press took their role as regulators of corporate reputations seriously, yet the need for a mediator to interpret the outcome of competitions undermined the system, thanks to the commercial imperative (to attract advertisers) which influenced how newspapers presented particular businesses, and the tendency of journalists to come to the defence of local and national interests in corporate disputes.⁵⁸ In any case, observers grew just as wary of commercial trickery in competitions as in print advertisements. As one article on the Saxby-Hobbs contest concluded wearily: 'We much question...whether there be not a good deal of *puffery* connected with the fine art of lock-picking, as well as with that of lock-making.'⁵⁹ Furthermore, the often bitter language of dispute between rival locksmiths tarnished the veneer of fair play covering competitions. Discord amongst rival inventor-entrepreneurs was perhaps to be expected, given that personal reputations were vital to perceptions of product quality;⁶⁰ yet the hostile atmosphere nonetheless had deleterious consequences for public confidence in the competitive system. Referring to the Hobbs-Goater controversy, *Punch* regretted that it was 'carried on with extreme acrimony and animosity, accompanied by reciprocal imputations of unfairness and fraud.'⁶¹ Some felt that, amidst such entrepreneurial posturing, the public interest was lost. One correspondent to *The Times* in 1851 bemoaned the prolonged war of words between Hobbs and Chubb, and spoke for the bankers and others 'who are compelled to rely on "patent detectors" and similar locks, [and who] are looking anxiously for more important

⁵⁶ Edmund Beckett Denison, *Clocks and Locks. From the 'Encyclopaedia Britannica'*, Edinburgh, second edition 1857 (accessed via Google Books), p.187.

⁵⁷ CLC/B/002/10/01/004/043 (*Chambers's Edinburgh Journal*, 25 December 1852).

⁵⁸ Contrast with James Taylor, 'Privacy, Publicity, and Reputation: how the Press Regulated the Market in Nineteenth-Century England', *Business History Review* 87, winter 2013, pp.679-701.

⁵⁹ CLC/B/002/10/01/004/068A (*Ladies' Own Journal*, 23 July 1853), emphasis added. This sceptical stance may have been influenced by their support for Chubb, which enjoyed its own 'puff' later in the article. See also CLC/B/002/10/01/004/094 (leaflet, 2 March 1854).

⁶⁰ Morus, *Frankenstein's Children*, pp.93-96; Marsden and Smith, *Engineering Empires*, p.197.

⁶¹ CLC/B/002/10/01/004/088E (*Punch*, 1 March 1854), also cited in Smith, 'Lock and Key', p.130.

operations.’⁶² As dispute crowded out objective analysis, all were left vulnerable to charges of favouritism. One reviewer, reflecting approvingly on a volume of Hobbs’s writings published in 1853, noted that it was ‘open to the charge of being a partisan work, but we do not see how this can be avoided; for since the great lock controversy there have been parties for Bramah, for Chubb, and for Hobbs’.⁶³

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Whatever the flaws of lock-picking contests, some still hoped that the competitive pressure they engendered would pre-empt advances in criminal techniques, leading to improvements in security product design. The first generations of tumbler and lever locks were designed to protect against those risks to which warded locks were vulnerable, especially the use of ‘skeleton picks’, and the practice of ‘mapping’ the mechanism. These methods were adopted in the early competitions, and seemingly for decades British experts regarded them the only viable means of picking a lock.⁶⁴ By contrast, in 1851 Hobbs exploited an apparently new technique, the so-called ‘tentative’ method, by which pressure was applied to the bolt and the levers manipulated sequentially against this pressure, until each aligned to its corresponding notch, allowing the bolt to be thrown.⁶⁵ This was precisely the kind of ‘scientific’ procedure, reliant upon mechanical knowledge and aptitude, associated with professional burglary.⁶⁶ The mid-century competitions thus exposed British locks to a new threat, yet in a controlled environment, which allowed locksmiths to devise alternative means of protection. Several commentators on the Great Lock Controversy thus looked forward to (preferably British) locksmiths devising ‘some new method of security, based upon some more certain principles’.⁶⁷

⁶² CLC/B/002/10/01/003/093A (*The Times*, 13 July 1851), also cited in Smith, ‘Lock and Key’, p.144.

⁶³ CLC/B/002/10/01/004/067B (unidentified newspaper, undated [1853]).

⁶⁴ See George Price, *A Treatise on Fire & Thief-Proof Depositories and Locks and Keys*, London, 1856 (accessed via Google Books), pp.549-50.

⁶⁵ Though Hobbs applied the tentative method with unprecedented system – at least within a British context – the technique was apparently used in an attempt on the Bramah lock in 1817: Charles Tomlinson (ed.), *Rudimentary Treatise on the Construction of Locks*, London, 1853 (accessed via Google Books), pp.110-12, 118-120, 129-130. See also Smith, ‘Lock and Key’, p.147.

⁶⁶ Churchill, ‘Professional Criminal’.

⁶⁷ CLC/B/002/10/01/003/098-099 (*Illustrated London News*, 6 September 1851), discussed further in Smith, ‘Under Lock and Key’, pp.177-79. See also CLC/B/002/10/01/003/100C (*Edinburgh Courant*, 9 September 1851); CLC/B/002/10/01/003/110C (*The Times*, 4 September 1851); Sharp, *Gilbart Prize Essay*, pp.294-95.

However, the relationship between competitions, criminality and security product design was more complex than this suggests. Some contemporaries took almost the opposite view, expressing concern that the publicity of the lock-picking spectacle actually provided instruction to professional burglars. Some journalists purposefully desisted from explaining the methods of competitive lock-pickers, for fear that they would inspire such ‘ingenious’ criminals.⁶⁸ Yet others, more deeply troubled by the ethics of competitions, worried that too fine a line separated the ‘science’ of lock-picking from the ‘science’ of burglary. During the Great Lock Controversy, *The Times* worried where ‘THE PICK LOCK QUESTION’ would lead: ‘as art always invites imitation, we have no doubt that the taste for lock-picking – which is already quite common enough – will extend among a class where perfection in the operation is not at all to be desired.’ The competitions were thus in danger of dignifying burglary as an ‘artistic experiment.’⁶⁹ While the lock-picking controversies did not confer upon housebreakers the respectable image of an ‘experimentalist’, such concerns illuminate familiar anxieties about whether the education of criminals might serve not just to promote moral progress, but also to sponsor the development of criminal cunning.⁷⁰

What about the impact of lock-picking on lock design? Superficially, there were grounds for optimism: the months and years following the Great Lock Controversy witnessed the introduction of improved locks by leading firms, eager to reclaim their place at the summit of the trade. The patent record also attests to a flurry of applications relating to locks in the 1850s (figure one). Although the Patent Law Amendment Act of 1852 certainly encouraged applications,⁷¹ the rush to protect and promote new lock designs still owed much to the interest generated by the competitions.⁷² Several of these designs were intended

⁶⁸ See CLC/B/002/10/01/003/108B (unidentified newspaper, undated [1851]).

⁶⁹ CLC/B/002/10/01/003/107B (*The Times*, 2 July 1851).

⁷⁰ Tobias, *Crime and Industrial Society*, p.174; Rosalind Crone, ‘Reappraising Victorian Literacy through Prison Records’, *Journal of Victorian Culture* 15:1, 2010, pp.8-9. See also Churchill, ‘Professional Criminal’.

⁷¹ See H.I. Dutton, *The Patent System and Inventive Activity during the Industrial Revolution, 1750-1852*, Manchester, 1984, p.63.

⁷² See also CLC/B/002/10/01/004/013E (*Wolverhampton Chronicle*, 1 Oct 1851); CLC/B/002/10/01/004/086A (unidentified newspaper, undated [1854]).

specifically to counter Hobbs’s tentative mode of picking: inventors thus incorporated

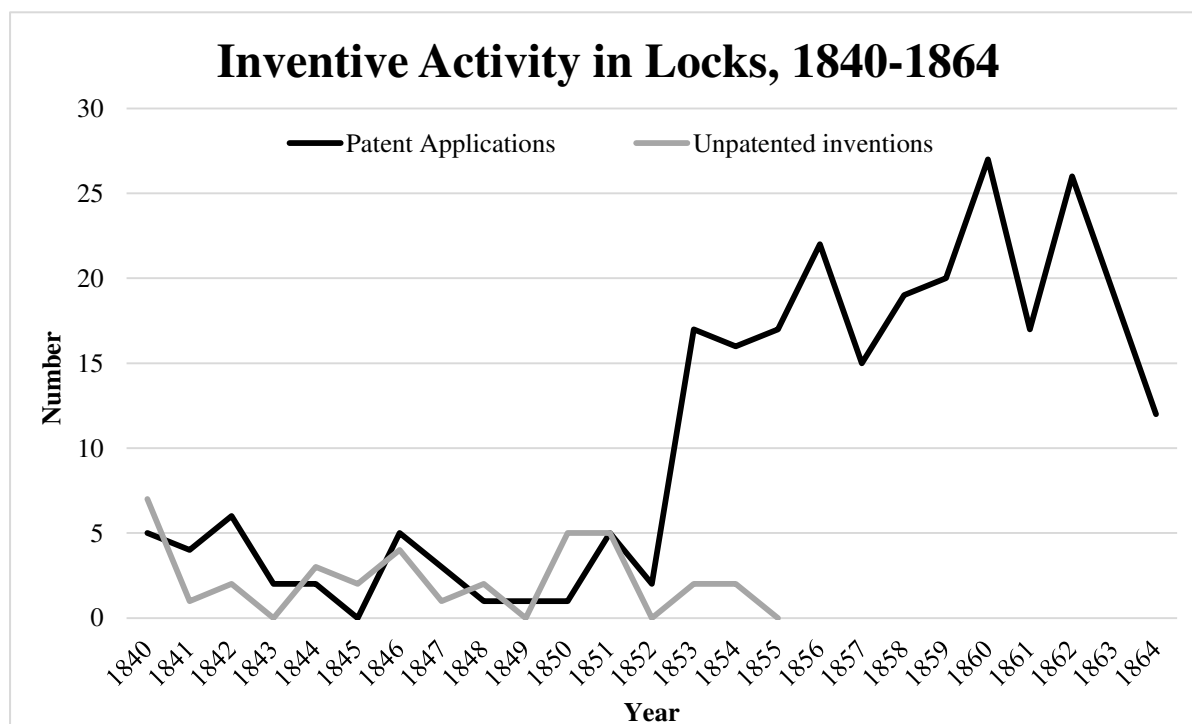


Figure one: recorded lock inventions. Sources: abridgments of specifications for lock patents, 1774-1866; Price, *Depositories*, chapters 14 and 16. The series for unpatented inventions – derived from Price, *Depositories* – is plainly highly selective, and terminates after 1855. Only those patent specifications within ‘class 44’ (‘Fastenings, Lock, Latch, Bolt, and Other’) which were classified as ‘locks’ (excluding railway and carriage door locks, and locks for taps or cocks), ‘padlocks’, ‘latches’, ‘keys’ and ‘keyholes’ have been included. I have filtered specifications prior to 1855 (which were not classified in the same fashion by the Patent Office) and the inventions mentioned by Price as closely as possible according to the same scheme. By these means, most inventions tangential to security lock design – concerning spindles, door and window fastenings, bolts, door chains, non-locking fastenings, and other devices – have been excluded from the data.

revolving ‘curtains’ or guards to prevent the insertion of multiple implements through the keyhole, adjusted mechanisms to prevent the continuous application of pressure to the bolt, and added false notches to frustrate the manipulation of tumblers or levers.⁷³ However, simply making a lock more difficult to pick was hardly the most appropriate design innovation at this time. This was because the ‘science’ of lock-picking developed through the competitions seems not to have been matched by any significant advance in criminal lock-picking. Re-evaluating the Great Lock Controversy some two years on, the *Wolverhampton*

⁷³ This assessment is based on a survey of abridgments of specifications for lock patents for the period 1844-1864. These modifications adapted existing safeguards against lock-picking, rather than producing locks on a new, superior principle: see Tomlinson (ed.), *Rudimentary Treatise*, pp.142, 150-51.

Chronicle observed that despite the ample publicity devoted to Hobbs's method, 'no instance has yet occurred of any robbery having been effected through the picking of a Chubb's lock. Thieves may get through trap doors and gratings, incautiously left insecure, or even break through walls, but a Chubb's Patent defies them yet'.⁷⁴ One might expect such a ringing endorsement from the firm's local newspaper, yet George Price too, despite making 'numerous enquiries', 'failed to discover a single instance in which a thief has succeeded in picking a good modern lock, which had any real pretensions to security.'⁷⁵ The most celebrated heist of the 1850s – the South-Eastern Railway bullion robbery of 1855 – saw thieves gain access to safes fitted with Chubb locks, yet they did so by making copies from the original keys, not by picking the locks.⁷⁶ The gap between competitive and criminal standards of lock-picking did not mean that property was blissfully secure, rather that thieves were likely to resort to alternative, simpler modes of entry. As we have seen, contemporaries were well aware of the lock-picking competition's shortcomings as a simulation of burglary.

Moreover, by elevating lock-picking above other modes of criminal attack, the competitions may even have stifled more appropriate product development. The first cautionary signs came in the late 1850s, when a series of high-profile safe-breakings, effected with the aid of drills, fuelled anxieties that advances in criminal skill had hastened beyond improvements in security product design. The safe-makers promptly resorted to spectacular drilling demonstrations to reassure the public that new modifications would keep the burglars at bay.⁷⁷ However, a more substantial blow to the security industry came with the Cornhill burglary of 1865. This sensational case concerned a break-in at Mr Walker's jeweller's shop in the City of London, accomplished in spite of the proprietor's scrupulous attention to security, and the regular patrol of the police.⁷⁸ Significantly, the burglars made no attempt upon the lock of the Milner safe – whether with picks, drills or gunpowder – but instead attacked the safe itself, repeatedly hammering metal wedges into the frame before wrenching the door open. The success of this approach revealed systemic failings in security product design, resulting in no small part from the system of public competitions. To a considerable extent, competitive lock-picking contests made the security companies preoccupied with

⁷⁴ CLC/B/002/10/01/004/059B (*Wolverhampton Chronicle*, 11 May 1853).

⁷⁵ Price, *Depositories*, p.755. (By 'modern locks', Price here refers to tumbler/lever locks in general, rather than specifically to locks invented since the Great Exhibition, which he elsewhere classes as 'modern'.) A decade later, Price examined thirty-six recent cases of safe-breaking, finding only two that had been accomplished by lock-picking: George Price, *The Forty Burglaries of the Years 1863-4-5*, London, 1866, p.90.

⁷⁶ See Donald Thomas, *The Victorian Underworld*, London, 1998, pp.206-229.

⁷⁷ See for example CLC/B/002/10/01/007/094 (*Liverpool Daily Post*, 14 May 1858).

⁷⁸ See Meier, *Property Crime*, especially pp.16-21. I am currently pursuing further research on this case and public reactions to it.

locks, to the neglect of safe design. (Indeed, the usual format of competitions in the early 1850s exposed only the keyhole of the lock, deliberately precluding alternative modes of attack.)⁷⁹ Hence, lock-picking competitions failed to keep security product design in step with advances in criminal methods. As the *Standard* observed in 1865:

In regard to locks we seem certainly to have beaten the rogues, and the time necessary for picking the best of these contrivances is more than the burglar can dare to reckon upon. But as love laughs at the locksmiths, so roguery lays down the ‘twirl’ [skeleton key] and picks up the lever, wrenching away the fastenings by main force, thus as it were turning the flank of the defensive enemy. Upon the whole there seems to be a conviction among mechanical authorities that the safe-makers have a good deal to learn.⁸⁰

The threat of the ‘modern’ burglar had shifted decisively from competitive simulation to the real world; in place of Hobbs, Thomas Caseley – the leader of the Cornhill gang – came to symbolize the threat of ‘scientific’ criminality.

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Given such a sorry record of dispute and disappointment, did the lock-picking contests simply fuel public distrust and anxiety? Smith seems to think so, arguing that the Great Lock Controversy produced a ‘crisis’ in mid-Victorian security by upsetting established commercial reputations, undermining national pride, and corroding the ethic of individual self-reliance.⁸¹ The episode left contemporaries ambivalent: according to *The Builder*, Hobbs had ‘certainly done something to restore the public confidence in locks, as well as much to destroy that confidence.’⁸² However, there was no substantive crisis in security in the 1850s, for if the consequences of successful pickings were partly destructive, they were also undeniably creative: one prominent locksmith observed in the mid-1860s that the Great Lock Controversy ‘gave a stimulus to the lock trade, such as it has never received before or

⁷⁹ CLC/B/002/HH01/01/03/001 (Hobbs-Garbutt lock-picking agreement, 10 September 1851); Hogg, *Safe Bind*, p.86.

⁸⁰ CLC/B/002/10/01/009/101E (*Standard*, 10 April 1865).

⁸¹ Smith, ‘Lock and Key’, chapter 3.

⁸² CLC/B/002/10/01/009/017A (*The Builder*, 31 May 1863).

since.⁸³ As we have seen, lock-picking sustained lock-making: it spurred the introduction of new models and provided a means for younger firms to gain traction in this heavily branded trade. Furthermore, by hastening the perceived obsolescence of old locks at a time of limited progress in criminal lock-picking, the competitions promoted renewed, ‘upgrade’ consumption of the latest models. Hence even the likes of Chubb & Son, whose lock was publically picked, profited from competitions nonetheless. The Great Lock Controversy had little immediate impact upon the firm’s sales figures, yet the competition era was clearly a period of considerable commercial expansion for Chubb, and almost certainly for the industry at large (figure two). The transition to more favourable economic conditions in the 1850s played its part, yet the scale of growth at Chubb – its trade account roughly doubled in value between the years 1850-51 and 1860-61, as did sales revenue – signals the buoyancy of premium lock-making at this time.⁸⁴ Hence, at the heart of the lock-picking competitions lay a productive potential, which was substantively realized in the mid-nineteenth century.

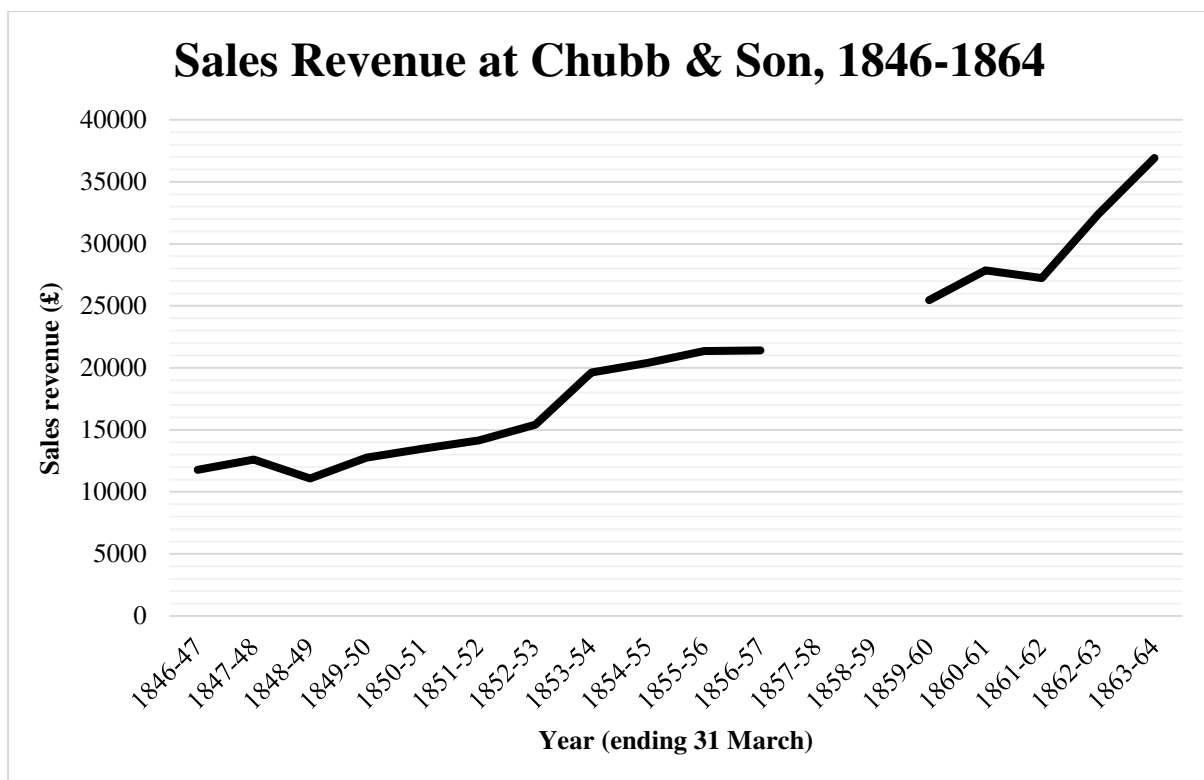


Figure two: total income from sales across all branches. Sources: Chubb & Son trade accounts, CLC/B/002/04/05/001-003. Data for 1857-59 are missing.

⁸³ J.E. Tildesley, ‘Locks and Lockmaking’, in Samuel Timmins (ed.), *The Resources, Products, and Industrial History of Birmingham and the Midland Hardware District*, London, 1866 (accessed via Google Books), p.83.

⁸⁴ CLC/B/002/04/05/001-002 (Chubb & Son trade accounts). On the economic climate, see Roy A. Church, *The Great Victorian Boom, 1850-1873*, London, 1975.

Furthermore, lock-picking competitions had a tangible impact on attitudes towards security at mid-century. While the contests failed to establish a single ‘market leading’ product, they promoted the modern lock in general as an article of security,⁸⁵ and elevated it to a new-found prominence and prestige in British culture. Traces of this interest were already present early in the nineteenth century, yet only following the Great Exhibition did locks become a topic almost of polite conversation. Dalton observed that ‘public attention has been forcibly and permanently fixed on a subject [locks] which, at the opening of the Exhibition, seemed one of the least likely to obtain any large share of consideration.’⁸⁶ *Chamber’s Edinburgh Journal* fleshed out the nature of this transformation more fully:

A LOCK, until within the last year or two, has been generally regarded as a mere piece of ironmongery – a plain matter-of-fact appendage to a door – a thing in which carpenters and box-makers are chiefly interested....A locksmith is [was] viewed like any other smith – as a hammerer and a filer of bits of iron....Suddenly, however, the subject has become invested with a dignity not before accorded to it: it has risen almost to the rank of a science. Learned professors, skilful engineers, wealthy capitalists, dextrous machinists, all have paid increased respect to locks....In short, a lock, like a watch or a steam-engine, is a machine whose construction rests on principles worthy of study, in the same degree that the lock itself is important as an aid to security.⁸⁷

Through the competitions, the lock had ascended from a banal ‘piece of ironmongery’ to a mechanical marvel: contemporaries referred to a successor to steam power and to the ‘unpickable’ lock in the same breath, considering each a ‘great desideratum’ of the age.⁸⁸ This transformation ensured extensive coverage of lock design and lock-making, even in mainstream newspapers, for years to come; only later in the century, as public interest in

⁸⁵ See also Richard Byrne, *Safecracking*, London, 1991, pp.114-15.

⁸⁶ *Proceedings of the Banking Institute*, p.16.

⁸⁷ CLC/B/002/10/01/004/043 (*Chamber’s Edinburgh Journal*, 25 December 1852). George Price also noted the new-found interest in locks amongst ‘a considerable portion of the intellectual and intelligent classes’: *Depositories*, p.583.

⁸⁸ See for example CLC/B/002/10/01/003/109A (*Illustrated London News*, 2 August 1851); CLC/B/002/10/01/005/068C (*Mechanics’ Magazine*, 7 April 1855). See also Smith, ‘Lock and Key’, p.148. On the postulated supersession of steam, see Marsden and Smith, *Engineering Empires*, p.80.

security products focused increasingly on safes and strong rooms, did the lock commence its retreat back to dull familiarity.⁸⁹

Less obviously, competitive lock-picking contributed to a subtle shift in how the development of security technologies was understood. By 1851, both the Chubb and Bramah locks had long been considered *permanently* unpickable. As far as any distinct view prevailed, security product development was conceived in terms of a stadial progression, which advanced from primitive methods of construction, through warded locks, to the telos of the ‘unpickable’ locks of the nineteenth century. To be sure, long after the heyday of competitions, lock-makers continued to regurgitate the myth of the ‘unpickable’ lock – assuring ‘absolute’ or ‘perfect’ security – which, of course, they claimed to have invented. Some ventured still bolder assertions that, with their inventions, the history of lock-making was effectively at an end. In 1862, during a protracted dispute with a rival inventor, Cotterill asserted ‘that it is rather too late in the history of my locks to dispute their security’.⁹⁰ He evidently took Hobbs’s unsuccessful attempt eight years previously as definitive proof of the model’s permanent inviolability. Such promises seemed increasingly empty as the 1850s progressed, due to two factors: first, the apparent violation of a series of ‘unpickable’ locks (whether made by Chubb, Bramah or Hobbs) in competition; and second, the revelation of new modes of attack, both the tentative mode of picking and alternative, destructive methods. Thus the stadial narrative of security product development was progressively undermined. While some simply posited the Great Exhibition as a new watershed,⁹¹ a more modern conception of continuous development in security product design was also emerging. Hobbs thus critiqued Cotterill’s claim that his lock had already been proven unpickable, arguing that all products required rigorous public testing to ensure that they remained of sufficient quality to frustrate the burglars of the day.⁹² This notion of the co-evolution of security products and criminal techniques would acquire firmer foundation following the high-profile burglaries of the late 1850s and 1860s.⁹³

In this shifting context, the lock-picking contests also contributed something to a new conception of how security was to be provided in a modern society. Besides elevating the

⁸⁹ More broadly, see Matthew Hilton, ‘The Banality of Consumption’, in Kate Soper and Frank Trentmann (eds), *Citizenship and Consumption*, Basingstoke, 2008, pp.87-103; Benjamin Goold, Ian Loader and Angélica Thumala, ‘The Banality of Security: the Curious Case of Surveillance Cameras’, *The British Journal of Criminology* 53:6, November 2013, pp.977-996.

⁹⁰ CLC/B/002/10/01/008/076B-C (*Birmingham Daily Post*, 12 June 1862).

⁹¹ For example Price, *Depositories*, viii.

⁹² CLC/B/002/10/01/007/108A (*Midland Advertiser and Birmingham Times*, 19 February 1859).

⁹³ See Churchill, ‘Professional Criminal’.

lock to a new fame and dignity, the competitions served to reify it, as a privileged provider of security. With the threat of professional criminality crystallising around the burglar, lock-picking competitions exhibited a technological ‘fix’ for this problem, and thus presented an alternative solution to serious property crime distinct from collective police provision or any amelioration of prevailing social conditions.⁹⁴ By aligning deep-seated social interests in safeguarding property with modern security devices, the competitions furthered their consumption and dissemination, as we have seen. Unsurprisingly, therefore, one finds at this time signs of an increasing resort to new security commodities to protect wealth, particularly within the business community. Indeed, following the Cornhill burglary, the excessive reliance of commercial proprietors on locks and safes (as well as on police patrols) became a major point of public discussion. Significantly, this enthusiasm for security devices advanced specifically in the 1850s, a moment at which faith in the preventative efficacy of the criminal justice system was coming under strain. Property crime proved a persistent menace, despite a generation or more of experiment with ‘new’ forms of law-enforcement (professional policing) and penal discipline (the penitentiary). Many had previously regarded the potential of such ‘enlightened’ criminal justice policy for moral regeneration with almost utopian confidence; by mid-century, however, they were increasingly disillusioned.⁹⁵ In this context, the invitation to invest in modern locks – as the latest innovation in crime prevention – the same dreams of perfect, mechanical, systematic protection carried greater momentum. Yet one must keep such developments in perspective. The tendency further to transpose security provision onto the world of commodities remained only a tendency; new locks were integrated into existing forms of collective and personal security provision, without competing with them. Additionally, the myth of achieving ‘perfect’ security through consumption – a myth nurtured by the competitions – was effectually exposed by the Cornhill case. It would thus seem that, in itself, the propensity to reify security commodities is rather fragile, as these products are ever in danger of having their professed ‘burglar-proof’ qualities exposed, with consumers invited to peer behind the veil of assurance.

⁹⁴ See also Steven Spitzer, ‘Security and Control in Capitalist Societies: the Fetishism of Security and the Secret thereof’, in John Lowman, Robert J. Menzies and T.S. Palys (eds), *Transcarceration: Essays in the Sociology of Social Control*, Aldershot, 1987, pp.49-51; Mark Neocleous, *Critique of Security*, Edinburgh, 2008, pp.153-58.

⁹⁵ See Philip Collins, *Dickens and Crime*, London, 1962, pp.18-20; Michael Ignatieff, *A Just Measure of Pain: the Penitentiary in the Industrial Revolution, 1750-1850*, London and Basingstoke, 1978, chapter 7; Peter W.J. Bartrip, ‘Public Opinion and Law Enforcement: the Ticket-of-Leave Scares in Mid-Victorian Britain’, in Victor Bailey (ed.), *Policing and Punishment in Nineteenth-Century Britain*, London, 1981, pp.156-170; Randall McGowen, ‘The Well-Ordered Prison: England, 1780-1865’ in David J. Rothman (ed.), *The Oxford History of the Prison: The Practice of Punishment in Western Society*, Oxford, 1995, pp.103-105.

Finally, the competitions facilitated the emergence of a modern security industry. However ambiguous the result of individual contests, the cumulative spectacle of rival manufacturers pitted in close competition reflected positively on modern locksmiths. In place of the rather static picture of a couple of untouchable firms with inviolable products, the competitions introduced the public to a collection of companies, which constituted a dynamic industry, capable of securing private property in a period of rapid social change. Out of the rupture in the established brand hierarchy came a more volatile set of competing commercial interests: as the *Spectator* observed,

Before the exhibition of 1851 no one thought of making a lock, save Bramah and Chubb. They were the orthodox makers, and men believed in them. The American Hobbs dispelled the illusion, and set the lock-making trade free. Since this emancipation, various makers have entered the lists, vying with each other especially in the strength and security of their locks.⁹⁶

In propagating this image, the lock-picking contests gave substance to the notion that a significant measure of security might effectually be provided through the competitive motor of industrial capitalism. Irrespective of the transitory fortunes of individual firms, the security industry as a whole emerged from the era of competitions as a recognisable guardian of private property.

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The lock-picking contest receded rapidly in the late 1860s. The lock-makers remained enthusiastic followers of the exhibition circuit, yet lock-picking competitions had virtually disappeared by 1870. We have already seen that competitions were neither uniform nor unchanging; by the 1860s, safes were increasingly the object of challenges, which now featured drills and gunpowder besides lock-picks. Yet the object of competition had remained the lock itself. The Cornhill burglary disturbed this continuity, causing an immediate transformation of the competitive format, and ultimately squeezing spectacular display into a more marginal position within British security industry practice. The wedging of the Milner safe at Cornhill – with utter disregard for the (un)pickability of the lock – forced a

⁹⁶ Reprinted in CLC/B/002/10/01/008/013A (*Wolverhampton Chronicle*, undated [June 1860]).

reconceptualization of burglars' tactics. *The Times* noted that, in the 1850s, 'it was believed that an iron safe with a first-rate lock would bid defiance to burglars. Two years ago, however, that delusion was exploded on the occasion of the celebrated Cornhill robbery.'⁹⁷ The resulting changes to public competitions were apparent by the 'Battle of the Safes' at the Paris Exhibition of 1867, which pitted the American safe-maker Silas Herring against his Lancashire counterpart Samuel Chatwood, in a robust and much-disputed test of the 'burglary-proof' qualities of their respective safes. The tests deployed reflected a post-Cornhill conception of criminal tactics: despite a perfunctory attempt on both sides to pick the locks, the 'battle' rapidly descended into a trial of strength, with extensive use of wedges, drills and sledgehammers on the doors and frames.⁹⁸ The days of agonizing over a lock, picks in hand, were over. Yet the shift from lock-picks to heavy tools robbed the competitive spectacle of half its charm. True, some commentators were impressed by the physique and skill of Chatwood's hammer-wielding men,⁹⁹ but the mystery and artistry of Hobbs had all but evaporated. Exhibitions, demonstrations and the occasional public contest would recur in the security industry into the twentieth century, but the mid-Victorian system of public competitions, inaugurated as recently as 1851, was already obsolete by 1870. Competitive lock-picking thus receded, yet not before it had established the security industry as a social force, revitalized the market in security products and subtly reshaped public attitudes towards protection. In these ways, the competitions were integral to the nineteenth-century transformation in the provision of security commodities, a transition which would have far-reaching and lasting consequences.

⁹⁷ CLC/B/002/10/01/010/094A-D (*The Times*, 19 August 1867). More than the Great Lock Controversy, the fallout from the Cornhill burglary might plausibly be considered a moment of crisis in security, as in this case criminals exposed the shortcomings of security products directly. However, this episode likewise served as a stimulus to the industry, which emerged without sustaining any lasting reputational damage.

⁹⁸ See George Augustus Sala, *The Battle of the Safes*, London, 1868 (accessed via Google Books).

⁹⁹ See CLC/B/002/10/01/010/094A-D (*The Times*, 19 August 1867).