Product Design and Public Competitions in the Lock and Safe Industry of Victorian Britain

Recent decades have seen a considerable increase in work on commodities, marketing and design in modern British history. Key to this has been the growth in historiographical attention to consumption, and to material culture more broadly; meanwhile, the rise of cultural history has generated further work on the history of marketing. However, the task of adequately integrating these perspectives with economic and business history remains. Furthermore, there has been a tendency in much recent work on material culture to privilege ‘soft’ goods of taste and fashion, meaning that some of the richness of the material past – including both its economic and cultural dimensions – has evaded historians.

In brief, this paper sets out to explore a rather different set of products, namely locks and safes. I should stress at the outset that my focus is on the ‘premium’ end of this trade, in other words, on leading, brand-name manufacturers – Bramah, Chubb, Milner, Tann, Hobbs, and others – who produced state-of-the-art security devices. Using material from a series of scrapbooks preserved in the Chubb company archive, I will firstly outline the chief priorities of lock and safe marketing in the mid-nineteenth century, before moving onto discuss public competitions and their role in marketing and product design.

Of the many objectives of lock and safe promotion, two were of particular significance for the present theme. Firstly, firms had to convince potential consumers that the product on offer was functionally effective – that a lock or safe really was burglar-proof, fire-proof or unpickable. Secondly, companies were also tasked with asserting the superiority of their product over those of their rivals – in other words, that it was more definitively burglar-proof, fire-proof, or unpickable than any other on the market. These twin aspirations reflect the fact that the marketing strategy of those firms under discussion was concerned principally with products and product quality, rather than with price. Of courses, this is hardly surprising, giving that we are talking about the trade in ‘premium’ locks and safes.

The firms in this sector used various advertising techniques to try to drive home this message of supreme product quality. These included tactics which I am sure are familiar to most of you: they highlighted their possession of a patent; they referenced the quality of design and workmanship; they made extensive use of testimonials, from both experts and consumers; and they reproduced news reports which cast their products in a favourable light. I do not have time to get into detail on these points today, but I would like to signal some of the difficulties of advertising as a medium of instilling product confidence at this time. Many of the core claims made in lock and safe advertisements – that locks could not be picked, even by skilled burglars,


or that safes could withstand intense and prolonged heat in fire – must have seemed, to contemporaries, quite fantastical. Several historians have noted public suspicions of ‘puffing’ in advertisements – that is, the practice of making inflated claims regarding a product – and have commented upon the deleterious consequences of such methods for public trust.\(^3\) Given such scepticism, alternative, exhibitionist modes of marketing were attractive, even if ultimately they too came to be regarded with some degree of cynicism. This, I argue, was part of the reason for the resort to public competitions in the lock and safe trade, and I will devote the remaining time to this subject.

By comparison with advertisements, lock-picking and safe-breaking competitions seemed to offer a surer guide to the relative merits of different products on the market. With prior arrangement between the competing parties – who were usually rival manufacturers and their employees – these contests pitted commercial competitors against each other, and put to the test the heady promotional claims made regarding their products. Although such competitions can be traced back to early in the nineteenth century, only in the 1850s did they develop into a more regular system. This followed the ‘Great Lock Controversy’ of 1851, in which the American Alfred Charles Hobbs travelled to the Great Exhibition, and there succeeded in picking locks made by Chubb and Bramah, which were previously thought unassailable.\(^4\) Hobbs’s successes initiated a chain of lock-picking challenges and contests which ran through the 1850s and 1860s, as prominent makers sought to displace their rivals’ products from positions of public favour, and assert the superiority of their own wares. (There was also, of course, a patriotic context to the 1851 lock controversy, bound up as it was with issues of foreign economic competition; the British press were certainly jubilant three years later, when one of Hobbs’s locks was picked, even though it was done under much murkier circumstances.)

Lock and safe contests attracted a great deal of press coverage and public interest. Reflecting on the course of the Great Exhibition, one newspaper claimed that no matter had attracted greater public attention than the ‘celebrated lock contest’.\(^5\) Indeed, a veritable cult grew to surround Hobbs, as a ‘scientific’ lock-picker, whose exploits were so voraciously consumed that he seemed, in the words of the *Morning Chronicle*, to become ‘an article of general property’.\(^6\) This public excitement – and the fact that it extended beyond 1851, to subsequent lock and safe contests – was well rooted. The spectacle of experimentation and contest offered by the locksmiths simulated two of society’s morbid fears, those of fire and property crime. The fascination of the spectacle issued, on the one hand, from witnessing the operation of a violent threat to civilised life, and on the other, from observing how the latest advances in technology promised the capacity for resistance. In this way, lock and safe competitions refracted much broader concerns about progress, technology and social mores at this time.

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\(^5\) Chubb Archive (London Metropolitan Archives): CLC/B/002/10/01/003/101 (unidentified newspaper article, undated [1851]).

\(^6\) CLC/B/002/10/01/004/13A (article, *Morning Chronicle*, 4 October 1851).
I will now move on to two more concrete issues: firstly, why lock and safe entrepreneurs were drawn to participate in these contests; and secondly, what effect this competitive regime had on product design.

As I have already suggested, the system of competitions promised lock and safe makers a means of circumventing some of the difficulties which surrounded advertising. Key to this was the publicity of such exhibitionist practices, which allowed direct public appreciation of the product at work. This was true also of non-competitive, public demonstrations of goods, which were extensively adopted by certain makers of fire-proof safe. Milner led the way here, conducting a vast catalogue of demonstrations of his products around the country. Yet, unlike such demonstrations, competitions were better suited to establishing the pre-eminence of a given maker’s product over those of his rivals. This was due to the professed transparency and fairness of competitions, which minimised complaints concerning the rigour of testing on display. For these reasons, competitions suited the twin purposes of lock and safe marketing rather well.

There were also further reasons for participation. In this heavily branded trade, contests presented individuals, small firms and new entrants to the market, with the opportunity to make a name for themselves. A clear example was Hobbs himself, whose lock-making venture, established following his performances at the Great Exhibition, drew considerable public interest as a result. Competitions offered similar opportunities for those who felt they laboured in the shadow of the more famous manufacturers. For instance, the safe-maker George Price, who wrote scathingly about the partiality of the London press towards established brands (particularly Chubb), repeatedly challenged such household names to test their products alongside his own, culminating in 1860 in a successful (though tragic) test of gunpowder-proof locks against Milner (a boy spectator was killed at this event). Finally, given public interest in the competitive system, those makers who abstained from it, by ignoring the challenges of their rivals, left themselves open to potential criticism. In this way, participation in lock and safes contest was to some extent self-sustaining.

Yet although these competitions promised much for manufacturers, their practical reception and impact was often ambiguous. This was in large part due to the fact that the results of so many contests were fiercely disputed. There were numerous grounds for potential dispute, including the insufficient publicity of the event, the dubious provenance of the item demonstrated upon, and claims that the contestant had failed to abide by the pre-arranged terms of the competition. Such disputes detracted from the aura of fair-play which commentators wished would surround the competitions, with potentially damaging consequences for the reputations of the firms concerned: in 1854, amidst an ‘acrimonious’ dispute between Chubb

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7 The firm claimed to have conducted ‘hundreds’ of public tests already by the early 1850s: CLC/B/002/10/01/004/040 (Milner leaflet, undated [c.1852]).
8 His personal fame probably helped to attract the capital required to develop his highly mechanised lock factory: on Hobbs’s use of machinery, see A.E. Musson, ‘The Engineering Industry’ in Roy Church (ed.), The Dynamics of Victorian Business: Problems and Perspectives to the 1870s (London: George Allen & Unwin, 1980), pp.99-100.
9 CLC/B/002/10/01/008/105 (G. Price leaflet, undated [c.1863]).
10 See for example CLC/B/002/10/01/005/012B (unidentified newspaper advertisement, undated [1850s]); CLC/B/002/10/01/005/088D (unidentified newspaper advertisement, undated [December 1855]).
11 CLC/B/002/10/01/008/002A (article, Manchester Guardian, 1 May 1860).
and Hobbs, *Punch* commented that, ‘Their presumably common object, the advertisement of their respective articles, would be better promoted if they could manage to divest their arguments on both sides of personalities calculated to suggest a doubt [as to] how far either can be depended upon.’ Such in-fighting between rival firms, which was more the rule than the exception, must have bred a measure of public scepticism concerning the competitions. Many readers who followed another such controversy, this time between two Birmingham locksmiths in 1859, surely knew well to heed George Price’s warning, that ‘Lock-picking is not such an easy matter as the “certificates” would lead your readers to believe.’ Additionally, there was the broader danger that a series of successful attacks upon hitherto esteemed products would sabotage damage public confidence in locks and safes altogether, and augment public suspicion of marketing ‘puffs’. This uneasy relationship between scrutiny and promotion came across when the *Builder* noted in 1863 that, since coming to England in 1851, Hobbs ‘has certainly done something to restore the public confidence in locks, as well as much to destroy that confidence.’ Therefore, in practice, it is by no means clear that lock and safe competitions did in fact provide a surer basis for cultivating product confidence than that available through advertising.

The final issue I wish to explore is the impact of lock-picking contests on product design. Many contemporaries trusted that the discipline of public competitions would spur locksmiths to produce increasingly sophisticated models. Reporting Hobbs’s victory over Bramah in 1851, the *Illustrated London News* considered that the episode would, ‘probably set our lock-makers bestirring themselves to devise some new method of security, based upon some more certain principles’. About the same time, the *Times* summed up its commentary on the episode by observing that Hobbs ‘has taught our makers a very useful lesson’, and urged them to get on with devising improvements to their designs.

Indeed, over the course of the 1850s, British firms seem to have acted upon such instructions. Improvements to locks were rapidly made and advertised by leading firms, including Chubb, Bramah and Milner, with a particular focus throughout on obviating the so-called ‘tentative’ mode of picking which Hobbs had pioneered. Metal ‘curtains’ (although not a new invention) and various other devices, designed to prevent the insertion of picking instruments, were incorporated into their locks. Alternatively, mechanisms were introduced to prevent the lock-picker from applying continual pressure to the bolt, a measure which was essential to Hobbs’s mode of operation. Meanwhile, those whose locks survived similar tests were able to capitalise on their new-found prominence in the trade. The leading example was Cotterill, the Birmingham locksmith whose product withstood Hobbs’s best efforts to pick it in 1854, a fact

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12 CLC/B/002/10/01/004/088E (article, *Punch*, 1 March 1854).
13 CLC/B/002/10/01/007/108B-D (G. Price letter to *Midland Advertiser and Birmingham Times*, 16 February 1859). The ‘Certificates’ were testimonials provided by those who witnessed the spectacle, as a means of authenticating it for the distant reading public.
14 CLC/B/002/10/01/009/017A (article, *Builder*, 31 May 1863), emphasis added.
16 See for example the lock patent submitted by John Chubb in November 1852: CLC/B/002/10/01/005/006 (patent specification, 1853).
which he repeated for many years to come, confident that it ‘ought to satisfy the most sceptical’.\footnote{CLC/B/002/10/01/008/076B-C (Cotterill letter to Birmingham Daily Post, 12 June 1862).}

However, technical improvements made in the 1850s were in due course themselves undermined, this time by the criminal fraternity. Following in the wake of a series of safe-breakings since the late 1850s, the Cornhill Burglary of 1865 severely damaged the claims of the security industry to provide the ‘perfect’ or ‘absolute’ security frequently invoked in its advertisements. This sensational case concerned the theft of valuable stock from a jeweller in the heart of the City of London, despite both his scrupulous attention to security, and the regular patrol of the City Police. Of course, it is hardly surprising that burglars should eventually devise means of circumventing the safes of the 1850s; nonetheless, this crisis arguably had its roots in the obsessive concern with those criminal tactics which were simulated in public competitions, specifically attacks on \textit{locks}, by picking or the through the use of gunpowder. The work of Hobbs reinforced this fixation upon the lock, despite evidence that skilful lock-picking was marginal to the methods of contemporary burglars. The result was that many security companies were relatively ill-prepared for forceful attacks upon safe \textit{doors} and \textit{frames}, using relatively simple tools. First, burglars profited from the use of common drills, before moving on (as in the case at Cornhill) to hammering steel wedges into the door frame, and using chisels and crowbars to prise the door from the body of the safe. Sustained violent attack may not have quite suited early Victorian perceptions of the ‘modern cracksman’, but it proved nonetheless a viable burglarious tactic, and was subsequently itself absorbed into the programme of safe-breaking contests from 1865 onwards.\footnote{For example, the 1867 competition between Chatwood and Herring: George Augustus Sala, \textit{The Battle of the Safes} (London: Tinsley Brothers, 1868).}

Although much of the history of lock and safe competitions is murky and ambiguous, it seems that these performances were centrally implicated in the development of the security industry, and of public consciousness about security, in the mid-nineteenth century. By pursuing this theme further, I hope in due course to elaborate more fully the significance of these events, by analysing the interaction of business activity and contemporary culture which was essential to them.