Keys and Hotel Security

From Metal to Plastic

by Stephen Rushmore and Carolyn Malone

At the birth of the republic, hotels had neither room keys nor security. Today, while keys are being phased out, security is stronger than ever.
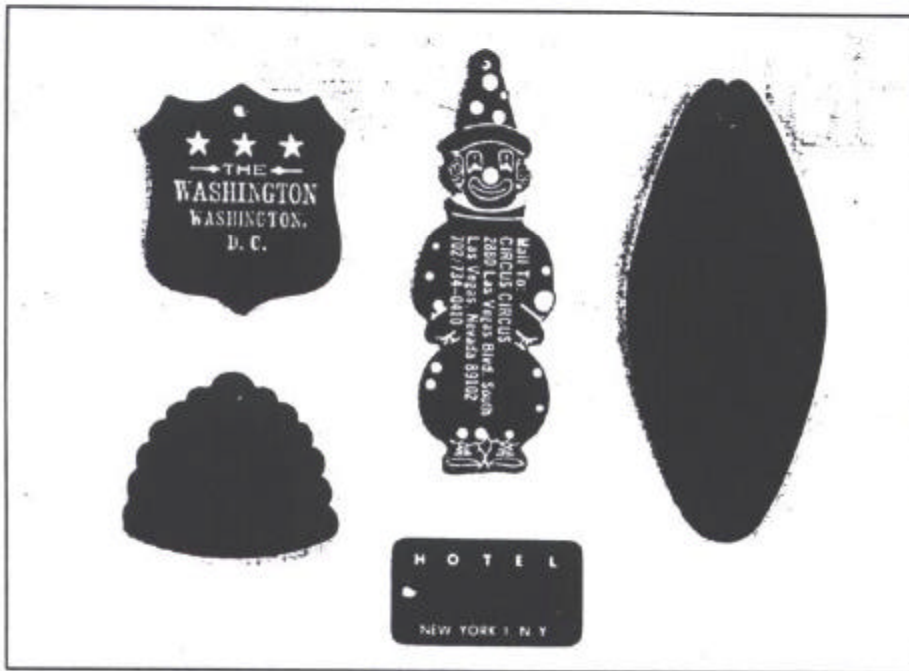
In an age when hotel and guest security is paramount, it is unfathomable to think that hotel guest rooms at one time had no locks on their doors whatsoever. Even more unimaginable is the fact that most travelers were unable to afford a private room, and so they slept in a common room and shared a bed with one or more snoring strangers. Yet, roughly two hundred years ago, in the United States's infancy, this was exactly the case. Guests staying at inns and taverns would drop off their footwear and outer garments in the common boot room on the main floor (with no guarantee of safekeeping) and adjourn to the second floor, where a sheet draped down the middle of the sleeping room segregated the sexes. Outfitted with only a candle from the innkeeper, the guests sauntered over to their designated side of the room and searched for the least crowded bed. The concept of using locks with keys to secure private hotel rooms was introduced in 1829, but it took many years before those metal contraptions were accepted as a means of safeguarding personal effects and even one's life.

Keys B.C.

Although hotels have not always used them, locks and keys have been around for centuries. Around 2,000 B.C., locks in ancient Egypt consisted of large, rectangular wooden bolts attached to the outside of the door; inside the bolt were wooden pegs held beneath pin tumblers,

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which held the bolt rigid. The keys that fit these locks were wooden as well and resembled a miniature hockey stick (or a very large angled toothbrush). The short, flat blade was lined with teeth on its top edge, and the long handle curved upward for about two or three feet. The teeth on the smaller edge consisted of a unique bristle configuration that had to match the pin-tumbler configuration inside the bolt. Standing outside his locked door, an Egyptian homeowner would hold the long handle, insert his hand and arm through a porthole in the door, slide the small jagged edge into the bolt sideways, and jiggle it up and down until the wooden pegs inside pushed up and the bolt rose.

Centuries later, ancient Greeks used keys that resembled a sickle. They were considered status symbols so that, according to a person's wealth, these keys were elaborately decorated with gold, ivory, or other precious materials. By this time, bolts were hidden and keyholes were prevalent. To unlock the door, the ancient Greek householder inserted the pointed end of the sickle into the keyhole, flicked his wrist

halfway, and released the bolt from the staple of the door jamb. Because these keys were often heavy with ornamentation, appointed slaves would accompany Greek homeowners wherever they went and carry the sickle-shaped key over their shoulder, thereby advertising the wealth of their masters.

Although some of the ancient Romans occasionally possessed large, heavy keys that were also carried by slaves, most Roman keys were palm-sized and made of iron or bronze. As such, keyholes were smaller as well, thus preventing thieves from breaking into their homes as easily as in the past. The Roman keys resembled those of today, with hollows and bumps on the flat part and zigzags of

various contortions on the narrow edge. The ancient Roman homeowner simply inserted the key into the keyhole and turned it sideways until the bolt inside the door was released from the lock.
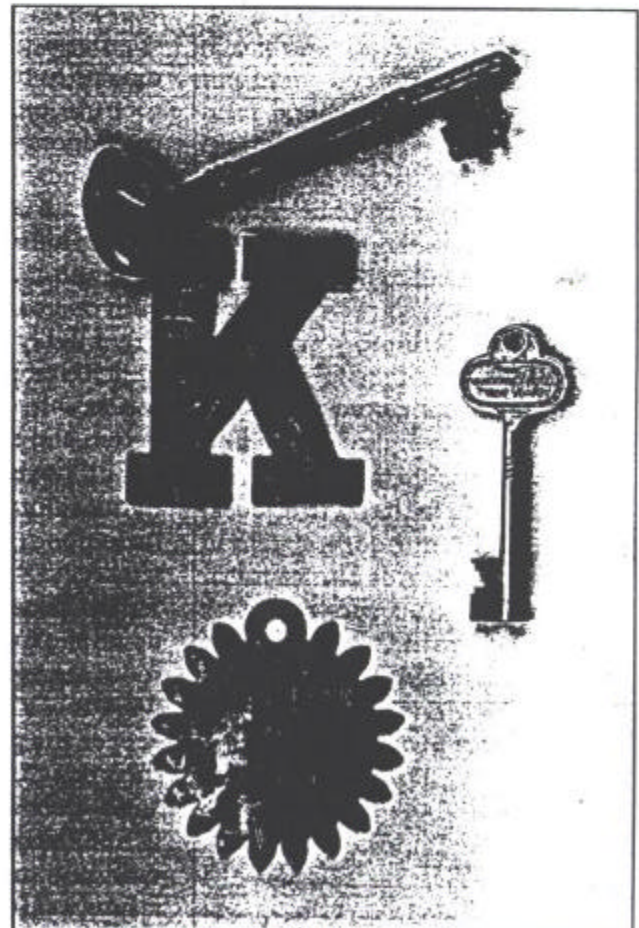
Red-handed: During the Middle Ages, whether staying at an inn or at home, people often kept their valuables locked up in a chest. The thief who successfully broke the lock might next encounter a shallow false tray with holes. Thinking he could grab the loot, the thief would insert one or two fingers into the holes in an attempt to raise the lid, only to be bitten by the snapping jaws of a mechanical trap that bored into the robber's flesh. Two scenarios were possible at this point. The thief who pried his tearing flesh away from the trap was literally, as they say, "caught red-handed," either right at that moment or later

on. (That is, if he managed to escape, the telltale scars and missing fingers would eventually trap him.) The thief who did not wish to dismember his fingers screamed and begged for the homeowner to let him loose, thus providing an effective burglar trap.

Interestingly enough, people in medieval times believed they could secure their trunks by having multiple locks on them, even though all of those locks usually could be opened by the same key, thus rendering the concept of having more than one lock useless. Eventually, blacksmiths—the predecessors to locksmiths—rediscovered the ancient system of having a unique key for each lock. As in ancient Greece and Rome, blacksmiths in the Middle Ages created elaborate and intricate keys made of hammered iron. The key handles often sported
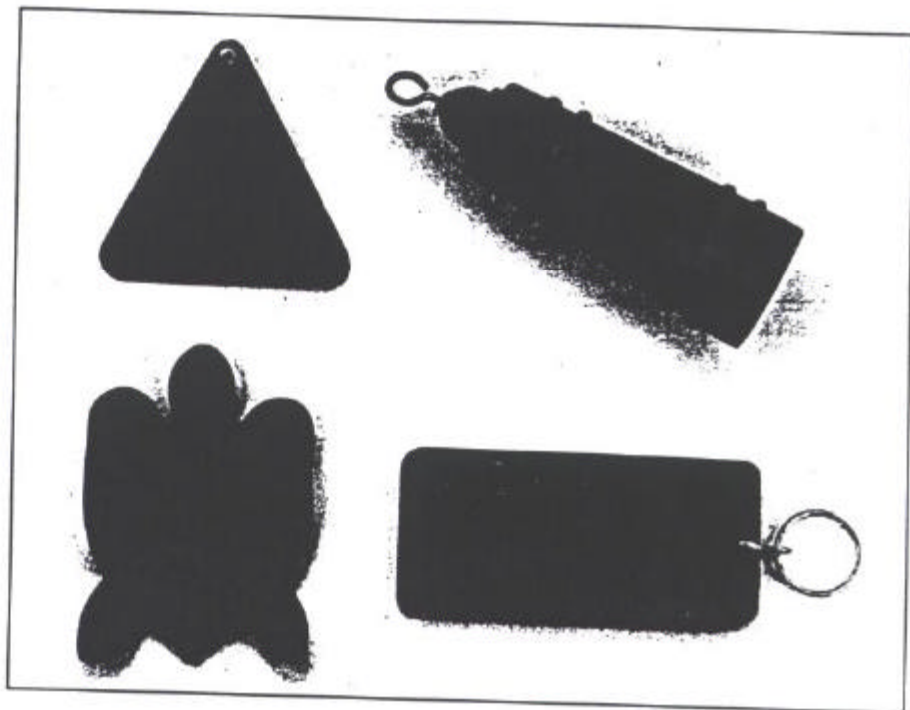
curlicue-shaped designs, or the owner's coat of arms.

At this time homes were protected by padlocks, rather than by large, bulky bolts. The padlocks themselves also were ornamental, often designed in animal motifs, coats of arms, or intricate scrolls. These padlocks sometimes concealed the actual keyhole and sometimes showed a false one to confuse thieves. Padlock systems were carried over to the 17th and 18th centuries; however, by this time keys were made of chiseled steel.

Skeleton key. During the late 18th century the lever-lock system was invented, and with it the often-recognized and much plainer-looking skeleton key came into

vogue. The most important feature of the lever lock was the rectangular block of iron, brass, or steel contained inside the latch side of the door, which snapped into or withdrew from the recessed area in the door jamb, depending on the rotation of the key. With the advent of the lever lock, the padlock lost its prominence as a major source of personal security.

Hotel Security

While homeowners had for centuries used locks to secure their dwellings, hotel guests, as already mentioned, did not have such security until the late 1820s. Prior to that time most travelers in both Europe and the United States stayed in inns and taverns, sleeping and eating among strangers. Lodging facilities known as hotels started cropping up in America in the early 1800s, but the concept of locks on guest-room doors was still unheard of. Finally, in 1829, the proprietor of the Hotel Tremont, in Boston, began the movement of offering private guest rooms with individual locks. Soon thereafter, in 1840, an artist named
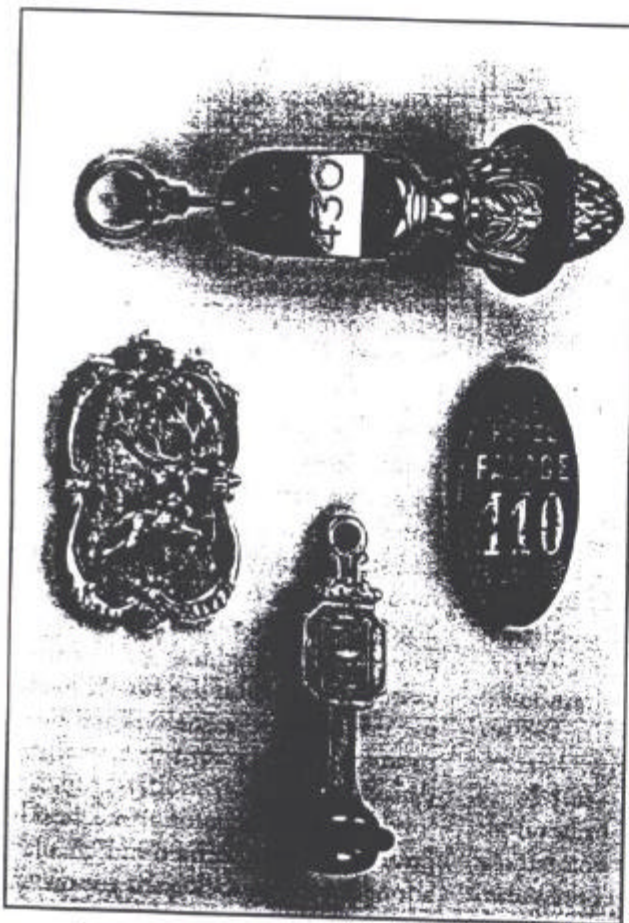
Smartcard Locks: The Next Generation of Guest-room Security

Hilton Hotels Corporation
SmartLock Key Card

Microchip

Hilton

CISA

Hilton Hotels Corporation has developed a new room-security system that links a SmartLock system with both SmartKeys and multi-function Smartcards. What's new about this technology is that it allows guests who already possess a Smartcard to use that card as the room "key," without having to bother with additional cards.

Hilton's SmartLock system recognizes information stored on a microchip embedded in a guest's multi-function Smartcard or the hotel's SmartKeys (the now-typical computer-programmed plastic key card). The locking-system technology was developed by Italy-based CISA. Hilton Hotels Corporation, which pioneered this application of that technology, plans to install the new electronic locks by the end of 1998 on each of its 2,041 guest-room doors at the Hilton New York & Towers, by some measures the largest hotel in New York City.

"The microprocessor technology employed in the SmartLock system, and the Smartcards and SmartKeys that operate them, deliver added value to our guests," said Thomas G. Daly, vice president-loss prevention for Hilton Hotels Corporation. "According to CISA, SmartKeys issued by the hotel are nearly impossible to duplicate, and the technology allows us to maintain a record of anyone who enters a room. But we're most excited for our guests who already possess a multi-function Smartcard that will be presented upon check-in for encoding to be used as their guest room key." Hilton estimates that more than 6,000 travelers already are holders of credit cards or affinity cards with Smartcard technology that can be used at the Hilton New York & Towers. Those cards include the American Express Corporate Card, Hilton's Optima Card, and Hilton HHonors' Worldwide Diamond VIP member cards.

In 1985 the Hilton New York became the first hotel in the United States to implement magnetic-strip technology for its guest-room locks.[1] Smartcards are projected to replace magnetic-strip technology and to become the standard storage and transfer medium for both credit and debit transaction in the early years of the next century.—*F.L.C.*

[1]According to a Hilton Hotels Corporation press release, July 28, 1998, p. 1.
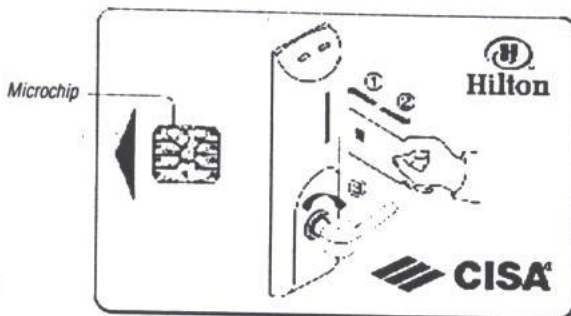
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Newspaper

New York Times, various articles from 1853 to 1898.

People

Diane Cripps, curator, Mid-Atlantic Center for the Arts, Cape May, New Jersey.

Eileen Kennedy, research coordinator, Museum of the City of New York, New York.

David Stought, resident manager, The Grand Hotel, Mackinac Island, Michigan.

Chuck Strauss, Yale Lock Company, Charlotte, North Carolina.

May Stone, librarian, New York Historical Society, New York, New York.

Linus Yale invented the now-famous Yale Cylinder Lock, which, unbeknownst to him, mimicked the by-then-forgotten ancient Egyptian pin tumbler. The 19th-century Yale key was inserted into a cylindrical plug and pushed each tumbler and driver in line. If the key's teeth came in contact with the correct tumblers, the cylindrical plug would rotate and release the lever from the door jamb. By this time, the bolt mechanism on the door's latch side was an elongated strip of metal that could easily fit into any door.

Although most hotels used skeleton keys or Yale locks by the mid-19th century, many guests still kept their doors unlocked—although they secured their personal treasures in their traveling trunks. Others simply left their valuables out in plain sight or hid them under their pillows. Thus, the age of the hotel thief commenced. From the 1850s to the 1870s, the *New York Times* was filled with articles on hotel burglaries and the arrest of hotel thieves, both on the east coast and what was then considered the west

(now the midwest). Although most hotels along the eastern seaboard employed detectives, these hotel police were unable to arrest or detain suspicious-looking persons. As such, a thief could easily enter a hotel and gain access to guest rooms, many of which had been left unlocked—despite the hotel's posting notices on the back of guest-room doors warning guests of the danger of theft.

Despite this type of crime, hotel guests generally seemed indignant about having to lock their rooms.

Guests reasoned that they shouldn't have to lock their rooms (i.e., security was the innkeeper's responsibility), and they worried about getting out of the room in the event of a fire, which was a common occurrence in hotels in those days.

Key Tags

Just as the Victorians were getting used to hotels' room keys and locks, they encountered the rising proliferation of key tags, which cropped up in hotels in the mid- to late 1800s. In the late 1800s American society was experiencing its industrial revolution, which, among other things, led to mass production that cultivated ubiquitous advertising. The appearance of print advertising had increased in frequency during the last few decades of the 19th century. Now, for the first time mass production made it possible to crank out millions of inexpensive reproductions of just about anything. Hoteliers took advantage of this ability and started to advertise their lodging facilities via key tags. In addition to the practical room-identification purpose, key tags were stamped with the hotel's logo, which proved to be a great marketing device that lasted well into the 20th century and which was eventually copied by virtually every other business. (Even today key chains with company logos remain popular.)

Lost and found. In the United States key tags were palm-size and made either of metal or wood. Quite often hotel guests would forget to return their keys to the front desk and take them home. This led hoteliers to stamp their key tags with the mailing address of the hotel, with the idea that people could drop those tags in the nearest mailbox, with return postage guaranteed. Yet, as human nature would have it, guests who took their key tags home often simply dropped

them in a drawer and forgot about them. Meanwhile, savvy European innkeepers made their key tags much larger and more cumbersome than those in the United States, so that guests would not forget to leave them behind at the front desk whenever they left the building.

Modern crime. After World War II lodging facilities proliferated around the country (with much of that growth related to the development of the nation's interstate-highway system). Although crime in lodging places has always existed, it has only been in the last few decades that hotels and their guests have increasingly fallen victim to serious crimes such as arson, assault, armed robbery, and rape. Instead of employing detectives as they did in the 19th century, hotels today employ security personnel and use hidden cameras. The metal keys that

were common in the 19th century and most of the 20th century are being replaced by electronic keying systems. Similarly, key tags with room numbers and mailing addresses are also considered a security risk. Instead, plastic key cards that can be reprogrammed each time a new guest stays in a particular room are now used at most new or renovated hotels.

As hotels work to increase security and guest safety, once-common non-computerized guest-room keys are fast becoming obsolete in the hotel world and are well on their way to becoming antiques. A smattering of hotels still use metal keys—the cost of electronic door-lock systems may still be prohibitive for some small and independent properties—and fewer still use hotel-identified key tags. We predict that, in time, none will do so. CQ

He's Got the Lock on Keys

Before the era of metal keys comes to a complete close, co-author Stephen Rushmore is determined to get the lock on the ultimate key collection. Over 6,000 key tags and a small collection of keys hang on the walls of an HVS office building in New York, creating a timeline that shows the evolution of key tags from when they were first made until the present day. At the beginning of the exhibit are old metal key tags, followed by wooden ones and then the more recent plastic and flake-board tags. Last, there are the new, plastic computer-programmable cards (see "Smartcard Locks," on the previous page).

In addition to standard rectangular and oval plastic key tags, the collection contains tags that were specifically designed for a particular market, such as a wooden turtle from a Balinese resort, an elk from a mountain-top retreat, the back of a playing card for a casino hotel, and a dome-shape portal (in Mughal-Afghani architectural style) for a palatial Indian resort. In keeping with tradition, the European key tags are heavy, large, and ornamental. For example, an aristocratic European hotel nestled in the countryside used a majestic gold tag with a large pineapple at its tip and a wooden coat of arms.

As with many of the European key tags, one particular rectangular key tag is quite long, approximately arm's length, which made it unlikely that a guest would forget to leave it behind at the front desk and instead carry it out of the hotel. Incidentally, no European key tag in this collection seems to be stamped with the hotel's address on it.

The U.S.-hotel key tags are small and tend to be whimsical; sunbursts, clowns, seashells, and nautical-theme buoys (most of them stamped with at least the hotel's logo) stand in contrast to their weightier European counterparts. Nonetheless, whether great or small, the preservation and display of these key tags are a testimony to Rushmore's love of the hotel business and the history behind it.

Rushmore collected his hotel key tags over the past 20 years while traveling around the country performing appraisals. The resulting worldwide collection is now displayed in the Rushmore Building in Mineola, New York. Other keys and tags were procured by placing classified ads in antique and collecting journals, and by combing flea markets. The largest single purchase was from a "roadie" who was a stagehand for a rock-and-roll band, who contributed 600 midwestern Holiday Inn key tags to the collection. Rushmore estimates that he has about 150,000 hotel keys left to collect.

This historical key collection will someday be donated to Rushmore's *alma mater*—the Cornell Hotel School—when he finally "checks out."—C.M.