## ESCAPING HANDCUFFS AND ZIP TIES



Hiatt type 2010 handcuffs. Circa 1990s Dutch police handcuffsHiatt type 104 "Darby" handcuffs and key. Circa 1950s
Handcuffs are restraint devices designed to secure an individual's wrists close together. They comprise two parts, linked together by a chain, a hinge, or rigid bar. Each half has a rotating arm which engages with a ratchet that prevents it from being opened once closed around a person's wrist. Without the key, the handcuffs cannot be removed and so the handcuffed person is unable to move his or her wrists more than a few centimetres/inches apart, making many tasks difficult or impossible. This is usually done to prevent suspected criminals from escaping police custody.

Styles


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Handcuffs which were worn during trials by the accused in the assassination of President Lincoln.

There are three main types of contemporary metal handcuffs: chain (cuffs are held together by a short chain), hinged (since hinged handcuffs permit less movement than a chain cuff, they are generally considered to be more secure), and rigid solid bar handcuffs. While bulkier to carry, rigid handcuffs permit several variations in cuffing. Hiatts Speedcuffs are rigid handcuffs used by most police forces in the United Kingdom. Both rigid and hinged cuffs can be used onehanded to apply pain-compliance/control techniques that are not workable with the chain type of cuff. Various accessories are available to improve the security or increase the rigidity of handcuffs, including boxes that fit over the chain or hinge and can themselves be locked with a padlock.

In 1933 the Royal Canadian Mounted Police used a type called "Mitten Handcuffs" to prevent criminals from being able to grab an object like the officer's gun. While used by some in law enforcement it was never popular. ${ }^{[1]}$

Handcuffs may be manufactured from various metals, including carbon steel, stainless steel and aluminium, or from synthetic polymers.

Sometimes two pairs of handcuffs are needed to restrain a person with an exceptionally large waistline because the hands cannot be brought close enough together; in this case, one cuff on one pair of handcuffs is handcuffed to one of the cuffs on the other pair, and then the remaining open handcuff on each pair is applied to the person's wrists. Oversized handcuffs are available from a number of manufacturers.

The National Museum of Australia has a number of handcuffs in its collection dating from the late 19th and early 20th centuries. These include'T'-type 'Come Along', 'D'-type and 'Figure-8' handcuffs. ${ }^{[2]}$

## Double locks

Handcuffs with double locks have a lock-spring which when engaged stops the cuff from ratcheting tighter to prevent the wearer from tightening them. Tightening could be intentional or by struggling; if tightened, the handcuffs may cause nerve damage or loss of circulation. Also some wearers could tighten the cuffs to attempt an escape by having the officer loosen the cuffs and attempting to escape while the cuffs are loose. Double locks also make picking the locks more difficult.

There exist three kinds of double locks as described in a Smith \& Wesson brochure:

## Lever lock

These are double-locked by fully lifting the lever with a fingertip and then allowing it to return. This causes the lock spring to move into a position that locks the bolt thus preventing the cuff from being further tightened. Thus no tool is required to double lock this type of cuff.

## Push pin lock

These are double-locked by fully depressing the push pin using the small peg on the top of the key. This causes the lock spring to move into a position that locks the bolt thus preventing the cuff from being further tightened.

## Slot lock

These are double-locked by inserting the small peg on the top of the key into the double lock slot. In this position, the small peg can contact the end of the lock spring. The key is then slid towards the key hole. This causes the lock spring to move into a position that locks the bolt, thus preventing the cuff from being further tightened.

## Plasticuffs

## Main article: PlastiCuffs

Plastic restraints, known as wrist ties, riot cuffs, plasticuffs, flexicuffs, flex-cuffs, tri-fold cuffs, zapstraps, zipcuffs, or zip-strips, are lightweight, disposable plastic strips resembling electrical cable ties. They can be carried in large quantities by soldiers and police and are therefore well-
suited for situations where many may be needed, such as during large-scale protests and riots. ${ }^{[c i t a t i o n ~ n e e d e d] ~ I n ~ r e c e n t ~ y e a r s, ~ a i r l i n e s ~ h a v e ~ b e g u n ~ t o ~ c a r r y ~ p l a s t i c ~ h a n d c u f f s ~ a s ~ a ~ w a y ~ t o ~}$ restrain disruptive passengers. ccitation needed] Disposable restraints could be considered to be costinefficient; they cannot be loosened, and must be cut off to permit a restrained subject to be fingerprinted, or to attend to bodily functions. It is not unheard of for a single subject to receive five or more sets of disposable restraints in his or her first few hours in custody.[citation needed] However, aforementioned usage means that cheap handcuffs are available in situations where steel ones would normally lay unused for long times.[citation needed] Recent products have been introduced that serve to address this concern, including disposable plastic restraints that can be opened or loosened with a key; more expensive than conventional plastic restraints, they can only be used a very limited number of times, and are not as strong as conventional disposable restraints, let alone modern metal handcuffs.[citation needed] In addition, plastic restraints are believed by many to be more likely to inflict nerve or soft-tissue damage to the wearer than metal handcuffs. [citation needed]

## Legcuffs



## Standard type legcuffs made in Taiwan

On occasions when a suspect exhibits extremely aggressive behavior, leg irons may be used as well; sometimes the chain connecting the leg irons to one another is looped around the chain of the handcuffs, and then the leg irons are applied, resulting in the person being "hog-tied". In a few rare cases, hog-tied persons lying on their stomachs have died from positional asphyxia, making the practice highly controversial, and leading to its being severely restricted, or even completely banned, in many localities.


## Keys

Most modern handcuffs in Canada, the United States, the United Kingdom and Latin America can be opened with the same standard universal handcuff key. This allows for easier transport of
prisoners and keeps one out of trouble if one loses one's keys. However, there are handcuff makers who use keys based on different standards. Maximum security handcuffs require special keys. Handcuff keys usually do not work with thumbcuffs. The Cuff Lock handcuff key padlock uses this same standard key.

In addition to the Universal handcuff key, a few modified designs exist, including a key that has been molded to fit behind an officer's badge (colloquially known as "The New York Tuning Fork" (U.S Patent 607,305).

## Hand positioning



## Old handcuffs

In the past, police officers typically handcuffed an arrested person with his or her hands in front, but since approximately the mid-1960s behind-the-back handcuffing has been the standard. The vast majority of police academies in the United States today also teach their recruits to apply handcuffs so that the palms of the suspect's hands face outward after the handcuffs are applied. The Jacksonville, Florida Police Department, the Los Angeles County Sheriff's Department and others are notable exceptions, as they favor palms-together handcuffing. This helps prevent radial neuropathy or handcuff neuropathy during extended periods of restraint. Suspects are handcuffed with the keyholes facing up (away from the hands) to make it difficult to open them even with a key or improvised lock-pick.


Hinged handcuffs applied behind the back, with palms facing outwards.
Because a person's hands are used in breaking falls, being handcuffed introduces a significant risk of injury if the prisoner trips or stumbles, in addition to injuries sustained from overly tight handcuffs causing Handcuff Neuropathy. Police officers having custody of the person need to be ready to catch a stumbling prisoner.

As soon as restraints go on, the officer has full liability. The risk of the prisoner losing balance is higher if the hands are handcuffed behind the back than if they are handcuffed in front; however, the risk of using fisted hands together as a weapon increases with hands in front.

Some prisoners being transported from custody to outside locations, for appearances at court, to medical facilities, etc., will wear handcuffs augmented with a belly chain. In this type of arrangement a metal, leather, or canvas belt is attached to the waist, sometimes with a locking mechanism. The handcuffs are secured to the belly chain and the prisoner's hands are kept at waist level. This allows a relative degree of comfort for the prisoner during prolonged internment in the securing device, while providing a greater degree of restriction to movement than simply placing the handcuffs on the wrists in the front.

## Escaping

Since handcuffs are only intended as temporary restraints, they are not the most complicated of locks. ${ }^{[3]}$ This is why escaping from handcuffs is a common stunt performed by magicians or skilled criminals, perhaps most famously Harry Houdini.

There are several ways of escaping from handcuffs:

1. slipping hands out when the hands are smaller than the wrist
2. lock picking
3. releasing the pawl with a shim
4. or simply opening the handcuffs with a duplicate key, often hidden on the body of the performer before the performance.

The above methods are often used in escapology. As most people's hands are larger than their wrists, the first method was much easier before the invention of modern ratchet cuffs, which can be adjusted to a variety of sizes. Modern handcuffs are generally ratcheted until they are too tight to be slipped off the hands. However, slipping out of ratchet cuffs is still possible. During his shows, Harry Houdini was frequently secured with multiple pairs of handcuffs. Any pair that was too difficult to be picked was placed on his upper arms. Being very muscular, his upper arms were far larger than his hands. Once he had picked the locks on the lower pairs of handcuffs, the upper pair could simply be slipped off.

It is also technically possible to break free ${ }^{[4]}$ from handcuffs by applying massive amounts of force from one's arms to cause the device to split open or loosen enough to squeeze one's hands through; however, this takes exceptional strength (especially with handcuffs made of steel). This also puts an immense amount of pressure on the biceps and triceps muscles, and when tried by suspects (even unsuccessfully) can lead to injury, including bruising around the wrists, or tearing the muscles used (including pulling them off their attachments to the bones).[citation needed]

Another common method of escaping (or attempting to escape) from being handcuffed behind the back, is that one would, from a sitting or lying position, bring one's legs up as high upon one's torso as possible, then push one's arms down to bring the handcuffs below one's feet, finally pulling the handcuffs up using one's arms to the front of one's body. This can lead to awkward or painful positions depending on how the handcuffs were applied, and typically requires a good amount of flexibility. It can also be done from a standing position, where, with some degree of effort, the handcuffed hands are slid around the hips and down the buttocks to the feet; then sliding each foot up and over the cuffs. These maneuvers, and the reverse (otherwise impossible) maneuver of bringing the handcuffed hands up behind the back and forwards over the head and then down in front, can be done fairly easily by some people who were born without collarbones because of the inherited deformity called cleidocranial dysostosis.

From this position, one has a better chance of attempting to use a tool (such as a shim or lockpick) to work one's way out of the handcuffs.

## Miscellaneous



Display of old handcuffs, Tatton Park Flower Show, 2010

In Japan，if someone is photographed or filmed while handcuffed，their hands have to be pixelated if it is used on TV or in the newspapers．This is because Kazuyoshi Miura who had been arrested brought a successful case to court arguing that being pictured in handcuffs implied guilt，and had prejudiced the trial．${ }^{[5]}$ Similarly，in Hong Kong，people being arrested and led away in handcuffs are usually given the chance by the policemen to have their heads covered by a black cloth bag．

Police handcuffs are sometimes used in sexual bondage and BDSM activities．This is potentially unsafe，because they were not designed for this purpose，and their use can result in nerve injury （Handcuff Neuropathy）or other tissue damage．Bondage cuffs were designed specifically for this application．They were designed using the same model of soft restraints used on psychiatric patients because they can be worn for long periods of time．Many such models can be fastened shut with padlocks．

## Metaphorical uses

Handcuffs are familiar enough for the word to be used in metaphors，e．g．：
－Golden handcuffs－an incentive given to an employee by a firm，most or all of which must be repaid to the company if the employee leaves the firm within a specified period of time．
－As a verb，meaning to be kept from doing something by another＇s action or inaction－ ＂He said that his computer work is handcuffed by his internet provider＇s refusal to accept ．zip files．＂
－In fantasy football，one strategy is to have both a star player and his backup，or ＂handcuff＂，on a team＇s roster of players．If the star is injured，the handcuff will be his likely replacement．

## References

1．＾＂Mitten Handcuffs Secure Criminal＂，October 1933，Popular Science middle of page 27， right side
2．$\hat{\wedge}$ Handcuffs from the National Museum of Australia collection
3．$\wedge$ Lutes，Jason and Bertozzi，Nick．Houdini：The Handcuff King．Hyperion， 2007.
4．＾＿Dave Young（May 25，2005）．＂How Well Do Your Handcuffs Really Work？＂． policeone．com．
5．＾＂＂『逆転無罪』＂．Matsuyama University．Retrieved 2010－02－26．（Japanese）
－The Lars Holst Restraint Collection
－Yossie＇s Handcuff Collection
－Atame＇s Collection of historical and modern Police restraints
－Cuffman＇s collection
－Handcuffs．org－A Collector＇s Guide to Vintage Handcuffs
－Collection of modern and historical restraints from the Czech Republic
－Specialised Hand Tools，including detailed descriptions
－US Handcuffs and Collectibles
－Russian site about handcuffs and bondage
How to Escape from Handcuffs

Harry Houdini's fame began with his ability to escape from handcuffs, becoming known as "The Handcuff King" in Europe. These instructions will allow you to escape from some brands of handcuffs when your hands are in front of you. This trick is intended to be performed for guests, not as a way to escape arrest.

## Edit Steps

1. 1

## Use Smith and Wesson Model 100 double lock handcuffs.



- This method may work on other brands, test them first to make sure (without putting them on).


Get a regular bobby pin and pull away the plastic covering.

3. 3

Bend the end that had been covered and put it into the keyhole.

4. 4

Take out the bobby pin. Now bend it the other way. You should end up with an angle shaped like the one in this image.

5. 5

## Insert the bobby pin into the keyhole.


6. 6

On the very edge, take the bobby pin and bend it down. This will release the latch that opens the jaws of the handcuffs.

7. 7

If you have a double lock, put the bobby pin into the keyhole on the other side.
Release the double lock and turn it around to release the latches, opening the jaw.

8. 8

As you can see, the handcuffs may be opened in about 5 seconds.


Escape artist Curtis Lovell appeared on Spike TV - Manswers in 2007 explaining how to pick and slip out of handcuffs.

- Use your own set of handcuffs. Purchase two sets--that way you'll have two keys. Make sure that both keys can unlock either set interchangeably. When you perform this trick, use one set and give the crowd what they think is the only key. Have the second key hidden nearby just in case the people you're performing for misplace the original.
- This may also work on other cuffs that use the standard cuff key, such as Peerless, Hiatt, ASP, and Chicago brand cuffs. ${ }^{[1]}$
- Handcuffs

| O-2 |  |  |
| :---: | :---: | :---: |
|  | MENU |  |
| - Handcuffs | - Chain Nippers | - Mechanical Nippers |
| - Knuckles | - Knives | - Miscellaneous |
| - Books O-H | - Books I - P | - Books Q-Z |

- (Click for enlarged view of following image.)

- Manacles of the World: A Collector's Guide to International Handcuffs, Leg Irons \& Other Miscellaneous Shackles \& Restraints, T. L. Gross, privately published, St. Louis, MO, 1997, 11 " height X 8 1/2" width, 162 pages, softcover. First Printing, First Edition (May 1997). Over 170 photographs \& illustrations. The seminal title on the topic.
- (Click for enlarged view of following image.)

- Handcuff Annual 2006, Joseph W. Lauher, Editor, Segatogue Press, Centereach, NY, 2006, 11" height X 8 1/2" width, 144 pages, spiral-bound softcover. First edition, First printing. Profusely and lavishly illustrated throughout, predominantly with photographs, in both colour and black \& white. The first volume in a projected, ongoing yearly series.
- (Click for enlarged view of following image.)

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- (Click for enlarged view of following image.)

- The single locking La Pegy handcuff was made in France during the 1950s. Sometimes thought to be derived from La Pègre, meaning "the gangster underworld", the actual derivation is from the French pronunciation of the initials PJ, for Police Judiciaire, meaning Criminal Investigation Department. The aluminium casing, or housing, has a brushed satin finish, and is stamp-marked LA PEGY over DEPOSE (meaning "trademark") on each cuff. The locks, the bows, or jaws, the two original keys and the five-link chain and attaching clevises are steel. The overall weight is light, only about 7 $1 / 2$ ounces. The original manufacturer's plastic bag is marked MENOTTES (meaning "handcuffs") over "LA PEGY" over DÉPOSÉE (again, meaning "trademark"). Unlike nearly all pairs of other handcuffs, the individual La Pegy cuffs are not mirror images of each other but are identical. Click here for an image of the handcuffs and their original manufacturer's plastic bag. The La Pegy is more than an handcuff; it is a fashion statement -- an extraordinarily elegant, stylish fashion statement. This one is in new condition. (An earlier version can be seen in the 1964 James Bond motion picture Goldfinger.)
- (Click for enlarged view of following image.)

- Mid-2oth Century, single locking, oval-shaped French handcuffs. SURETÉ NATIONALE is stamp-marked on one of the anodised steel bows. One of the aluminium cuff casings is stamp-marked with D2685. The chain links and flat key are of steel. La Sûreté Nationale (literally, "National Safety" or "National Security") was established in France in 1812. It is the direct descendant of America's Federal Bureau of Investigation (FBI) and Britain's Criminal Investigation Department (CID) of Scotland Yard. It also is the prior name of La Police Nationale, the French National Police, established in 1966.
- (Click for enlarged view of following image.)

- Circa 1940s, single locking, oval-shaped French handcuffs. Stamp-marked on one of the aluminium cuff casings A3749 and TD. The bows, connecting links and key are of steel. There was more than one version of this handcuff model. This version, with the centre connecting link a $1 / 4^{\prime \prime}$ height $\mathrm{X} 1 / 2^{\prime \prime}$ diameter cylindrical ring, is the rarer one.
- (Click for enlarged view of following image.)

- The prestigious, prolific German giant Clejuso -- an acronym for Clemen \& Jung, Solingen -- was established in 1860. According to Manacles of the World author Tom Gross, the early model 12D, of which there were several variations, "may very well be the first Clejuso handcuff design. It is similar to the traditional French handcuffs in its elliptical or 'eggplant' shape." Of nickel plated steel, this double locking version is accompanied by its original leather pouch and original key. Very deeply stamp-marked Clejuso, in script, on each cuff. Clejuso states it introduced the model 12D in 1946. Click here for an image of the handcuffs and their pouch. Click here to see another pair, this one with its key marked CLEJUSO.
- (Click for enlarged, multiple view of following image.)

- A set of Hiatt (Birmingham, England) Figure Eight, also called Irish Eight, handcuffs, with working drum-cylinder lock and key. Deeply stamped on one side HIATT and on the other side BRITISH MADE. According to Hiatt Chairman G. W. Cross, "They were
the first handcuffs issued to the Metropolitan Police of London in about 1832." Vintage, venerable and in excellent condition, many collectors regard this uniquely designed police restraint by this famous English maker of manacles to be the Holy Grail of handcuffs. The figure eight handcuff was Hiatt's number 103.
- (Click for enlarged, multiple view of following image.)

- Another, early pair of nickel plated Hiatt's famed "Figure of 8" handcuffs with the original, matching key. The cuffs stamped HIATT, 3 and 466; the key stamped HIATT and 466. In excellent condition and perfect working order with a tight, powerful spring.
- (Click for enlarged view of following image.)

- A set of Hiatt 115 adjustable darby handcuffs, with multiple locking positions. Each cuff and the original key are stamped HIATT; one cuff is stamped BRITISH MADE; the key also is stamped with the number 1 on both sides. Very brightly finished, in mint condition and in perfect working order. This is the standard style handcuff Sherlock Holmes would have known and used in Victorian England.
- (Click for enlarged view of following image.)

- A set of Hiatt 104 non-adjustable darby handcuffs, having a single locking position. Each cuff is stamp-marked HIATT, BEST, WARRANTED WROUGHT, HARD and 55. The original key is stamp-marked HIATT. In excellent condition and perfect working order.
- (Click for enlarged view of following image.)

- The case of the curiously curved, collectible cuffs: Hiatt's 1960 Pattern Handcuffs. Brightly chrome plated, in mint, unused condition, with the original key and box. Stamped HIATTS 1960 and BRITISH MADE on one of the cuffs. The box reads, "THIS HANDCUFF CAN DEFINITELY BE 'FLICKED' ON A PRISONER'S WRIST". Whilst the appeal of this double locking, single swivel model comes from its unusual shape, its introduction marked a major milestone in Hiatt handcuff history. Hiatt Chairman G. W. Cross states, "The 1960 pattern handcuff was the first ratchet, swingthrough handcuff made by us." Tom Gross, in his book Manacles of the World, writes, "The Hiatt Model 1960, while never really popular, did serve to acquaint the British police community with the swing-through style of handcuff, broke down market resistance to that unfamiliar style, and paved the way for Hiatt's emergence as a major international supplier of modern handcuffs." Gross also notes, "The Hiatt Model 1960...[was] among the very few handcuffs ever produced with a round keyhole." Only in England, and only in the 1960s, they were the perfectly styled handcuffs for the stylishly perfect era of Swinging London.
- (Click for enlarged view of following image.)

- Another Hiatt's 1960 Pattern pair of handcuffs, also stamp-marked HIATTS 1960 and BRITISH MADE on one of the cuffs. This was the last Hiatt \& Co. -- soon to become Hiatts -- handcuff, and the only post-darby model, to be produced in multiple sizes. Three versions were made during the decade. The immediate successor to the darbies, the 1960 Pattern retained the darby links.
- (Click for enlarged view of following image.)

- Single locking position, non-adjustable darby handcuffs from the British firm of Wm. Dowler \& Sons, Great Charles Street, Birmingham (established 1774). This set likely was made by Hiatt, as Hiatt Chairman G. W. Cross relates, "We believe that W. Dowler was not a manufacturer, but merely a distributor or retailer of handcuffs, and possibly other police supplies, which had 'private labels' made by ourselves. We believe that W. Dowler was in business sometime between the 1880's and 1920's." Stamp-marked on both cuffs are BEST, WARRANTED WROUGHT, HARD and 23; W. DOWLER is stamp-marked on one cuff. Strong, sturdy, substantial and superbly made, with tight, powerful locks, this seldom seen 19th Century set retains approximately $95 \%$ of its original, heavy plating.
- (Click for enlarged view of following image.)

- The Hiatt 1970 Pattern handcuff constituted a stylistic simplification of its predecessor, the 1960 Pattern. This pair is stamp-marked HIATT 1970 and BRITISH MADE on one of the cuffs, with the number 27 impressed on the back of the same cuff. Nickel plated steel, double locking, with its original key and pouch and in about mint condition. Click here for an image of the handcuffs and their pouch.
- (Click for enlarged view of following image.)

- The staple of the now-extensive Hiatts handcuff models, the 2010 set the standard for the contemporary active duty handcuff. Introduced in 1985, five years following the Hiatt bicentennial, the 2010 has been in continuous production longer than any Hiatts nondarby handcuff. Impressed HIATTS MADE IN ENGLAND on each side of each cuff casing, it was the first pair of handcuffs to replace BRITISH MADE with MADE IN ENGLAND. A serial number is on one side of one jaw. It also was the first Hiatts handcuff to accept the so-called universal, or standard, key -- a key common to the locks of most major manufacturers of handcuffs -- and was the handcuff Hiatts chose to premiere its exclusive back-loading feature. Of satin nickel finish steel, 9.5 ounces weight and in As New condition. Click here for an image of the Hiatts handcuffs box.
- (Click for enlarged view of following image.)

- In the 1990s, Hiatts chairman Geoffrey William Cross designed an integral rigid steel handcuff with an ergonomic plastic grip. It was designated the Speedcuff Rapid Control System. Model 2103 is the steel deluxe satin nickel finish. The weight is 14 oz . The handcuffs double lock and incorporate Hiatts' back-loading feature. The circular disc in the grip's centre reads HIATTS UK. DES APPL. No. [Design Application Number] 2034362. This pair of cuffs comes with the Hiatts Model SCP5 black leather pouch with belt loop, this one number 5599. These handcuffs have been highly controversial since their introduction, their rigid design easily abused to inflict deliberate injury. Hiatts is not quite as explicit, stating instead, "Utilising pressure sensitive areas, it can be a significant aid to gaining control." Click here for an image of the handcuffs and their pouch.
- (Click for enlarged view of following image.)

- From France, four and forty inches of 19th to early 20th Century prime prisoner transport chain. The end rings and characteristic braided coiled links of nickel plated steel. Age has produced a smooth, deep, rich patina, providing a dark bronze appearance. Excellent condition. French convicts, if nothing else, travelled in style.
- (Click for enlarged, multiple view of following image.)

- Italian police, or carabinieri, chain handcuffs. Of French-style (or possibly Frenchmade) links and two rings. The end link is passed through the inner ring to form the first cuff, then through the end ring to form the second cuff. The handcuff then is secured with a padlock. The handcuffs of nickel plated steel, the padlock of brass and hardened, or temperato, steel. The simple whilst effective design of the padlocking chain handcuff was used into the third quarter of the 20th Century. The Italians were not slaves to or intimidated by complex technology.
- (Click for enlarged view of following image.)

- Italian bagno handcuffs. The Italian word for handcuffs is manette. The bagno handcuff also is referred to as ferri di sicurezza da carabinieri, or "police irons of security". Of steel construction, the mechanism and operation are remarkably simple. Each hand is placed into one of the apertures. The wing nut at the bottom of the centre vertical bar
then is screwed clockwise, elevating the horizontal bar until a snug, secure fit is attained. The wing nut and horizontal bar then may be fastened together with a padlock. The design is an effective one. Bagno means "bath" in Italian. The name derives, perhaps anecdotally, from the deep cells in the Paris Bastille where prisoners were incarcerated, which flooded at higher tides. The weight is a fairly impressive 22 ounces. The overall dimensions are $63 / 8$ " width X $65 / 8$ " height.


## Tip and poll on picking handcuffs

We've got an article in the works that details picking your way out of handcuffs, but here's a funny tip on what not to do to your handcuffs.

A pair of Smith \& Wesson Model 100 handcuffs had a problem with one side staying shut after our last bout of picking them open with a bobby pin.

Upon sending them in for repair, they diagnosed the problem as "Wire in cuff." The funny thing is that we never mentioned how the problem occurred when we sent them in, only what was wrong.

You can see from our photo that the excellent customer service at Smith and Wesson had to replace the bolt and spring in the cuff to fix the problem, which they graciously didn't charge us for!

## Tip: Don't break off a piece of bobby pin in the keyhole while picking!

- 1. If they are behind your back get them in front of you. You can do this by slipping them over your hips so your hands are under your legs. Once they are there, step backwards over your hands. Once they are in front it is easier to get out.

2. Get a paperclip or hairpin (bobby pins work). Just put it in there and twist it around, it should be really easy to pick (they aren't the most secure locking)
3. All handcuff keys are the same, so if you get one, it will open every handcuff.

Just be sure you can get your hands in front of you, thats the trick. If you can do that, you can get out of them pretty easy.

## Source(s):

I have a pair and I've done it before.

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I have a set of peerless handcuffs, let me tell you there tolerances are too tight in the key hole to work with a paperclip. They have a stud in the whole and the key goes around it even the thinist paperclip will not go in the void. I tried for several hours with out success

Okay let us throw out the idea you've been handcuffed in a home invasion and the bad guys are getting ready to run a chain on your wife/daughters/son/dog or that Italian silk couch you picked up at the flea market...

It can come in handy in the right circumstances, but it can also have tragic results for L/E. I personally always double lock cuffs with key holes facing up..

Can you really pick the lock on a pair of handcuffs with a paperclip?

## Ficer67

10-19-2003, 03:18 AM
In the movies, (do I need to go any further?) you see characters getting out of handcuffs with all manner of cheap disposable items, paper clips, bobby pins, whatever.

Is any of this really possible?

## Whiskey-Hotel

10-19-2003, 03:26 AM
My friend brough a pair of handcuffs to school once (his brother was a cop) and they indeed could be picked with a paperclip. The locking mechanism was just a simple spring-loaded piece that would engage the ratchet mechanism.

## engineer_comp_geek

10-19-2003, 04:34 AM
I read that Harry Houdini used to own every type of handcuffs in use by law enforcement at the time, so that he knew how to get out of every single type. It gave me the impression that there were numerous different types, but that all of them could be opened with only a handful of different items that could be easily hidden behind your belt, if you knew how.

Of course this was a long time ago, so I don't have any idea what's in use currently.

## Geek Mecha

10-19-2003, 04:37 AM
I did it with a pair of cuffs I got from an arcade. (They weren't too cheesy-- they were made of metal and locked tight.) I twisted the paperclip so that there was a loop on one end and I could use it like a key-- insert and twist.

If your hands are cuffed in front of you, then you'll have an easier time doing it. Seeing what you're doing helps tremendously and there's less strain on your wrists when you twiddle with the lock. It's more difficult if you're cuffed behind your back.

## Khadaji

10-19-2003, 08:05 AM
My (now departed) brother-in-law used to be a local cop and yes, I could pick his cuffs with a paper clip.

## Bear_Nenno

10-19-2003, 12:46 PM
Behind the back does make it harder. And proper cuffing techniques (with thumbs pointed UP) makes it nearly impossible to perform.
S\&W also makes a 'high security' handcuff. The key and key hole are both really tiny. You're not getting anything in there.

## minor7flat5

10-19-2003, 01:15 PM
There is also a technique that involves slipping a thin piece of metal in between the ratchet itself and the lock mechanism in order to move the pawl away. Modern cuffs have a double-lock mechanism that allows an officer to lock the ratchet mechanism.

I don't know the details about the cuffs that your average beat cop carries, but I have seen cuffs that had a little pin on the end of the key that was inserted in a small hole on the bottom of the lock that locked the pawl.

Those stamped-steel wonders that you can buy in novelty stores are not really comparable to the real McCoy.
[loosely-related anecdote]
You have invoked a distant memory of mine.
The scene: a southern-California hotel room in the summer of ' 78 , 11 years old. My brother and I both had handcuffs we had bought at a novelty store the day before. Mom was out with old-time friends, expected to be gone till midnight. Dad was out running errands, without the room key.

Stupid brother calls me over and promptly handcuffs my wrist to his own and tosses the keys into the livingroom. I then noticed that his other wrist was handcuffed to the fridge :eek:.
We were too young to fathom what would happen if my dad were to get the manager to open the door (imagine California's child protective services folks beating my dad with a rubber hose in a back room).

After the joke wore off we tried in vain to open the locks with bent fork tines. We narrowly
avoided all of the possible unpleasant outcomes when I painfully wrenched my hand out of the not-so-tight cuff. Boy was that stupid.
[/loosely-related anecdote]

## Dave_D

10-19-2003, 01:36 PM
I've got a related question I guess. I've also seen that circus strongman stunt were a guy puts the cuffs on in the front and uses "inhuman strength" to snap the chain between the 2 cuffs. Is this really possible with a legit pair of cuffs or is that a trick or something?

## Bill H.

10-19-2003, 01:50 PM
I'm a former locksmith. I can't speak to cuffs everywhere, but I have friends in the police departments in San Diego and San Jose, and I've seen and played with their cuffs. There was no way either of those cuffs could be picked by a paperclip.
The possible attacks are:
a) through the key hole: the keyhole is very small by itself, and it has a pin in the center of the hole (the key has a matching hole for the pin). It's not possible to get a paperclip into the key hole between the edge of the hole and pin. no way.
b) along the ratchet: firstly, the cuffs are very well machined; a paper clip is too thick. more importantly, the cuffs have a secondary lock that disables the ability to slip the ratchet.

## Osip

10-19-2003, 02:23 PM
I am stll a locksmith.
It depends on the Cuffs and how the person is cuffed.
Most modern cuffs are designed to prevent this.
Some older cuffs can be done in this manner.

## engineer_comp_geek

10-19-2003, 04:05 PM
Originally posted by Dave_D
I've got a related question I guess. I've also seen that circus strongman stunt were a guy puts the cuffs on in the front and uses "inhuman strength" to snap the chain between the 2 cuffs. Is this really possible with a legit pair of cuffs or is that a trick or something?

My brother in law happens to be a cop. He stopped by after work the other day, but unfortunately this was before this thread got started or I could have experimented with a real set of cuffs. My son was asking a lot of questions about the cuffs though and we happened to touch on this subject. My brother in law has never heard of anyone being strong enough to break out of them. Usually the only people who escape from cuffs are people with very small wrists and hands. He also mentioned that they do have the garbage tie types of things, but that they rarely use them because they are very easy to over-tighten when you put them on, and accidentally cut off circulation to someone's hand.

I suspect your circus performer had a pair of el-cheapo cuffs from a novelty shop. They were probably real metal and would have impressed someone examining them, but I doubt the real thing could have been so easily broken.

My brother-in-law also mentioned that they have two types of metal cuffs, the chain type that we've been talking about, but also a hinged type. The hinged type is more restrictive of certain types of movement, and I'm guessing would be much more difficult to manuever around a paperclip or whateve to unlock it.

## Bear_Nenno

10-19-2003, 04:39 PM
I saw a story on tv where an officer was restrained with his own cuffs. The kidnappers ran off and left him in a room. He was able to break the cuffs by muscle alone. That, and a buttload of adrenaline I guess.
It was a reputable show but I dont remember which one. I remember this part mainly because how suprised I was to hear it.

## minor7flat5

Originally posted by Bill H .
...along the ratchet: firstly, the cuffs are very well machined; a paper clip is too thick. more importantly, the cuffs have a secondary lock that disables the ability to slip the ratchet. Hmmm... I'm surprised nobody mentioned this already ;).

Anyway, the last time I had my hands on a real set of handcuffs was at an Army surplus store -they had the whole range of cuffs, from the el-cheapo to the type that Bill H. described. Yes, they were very well machined and there was no way a paperclip could go in the keyhole -- music wire maybe, but not a paperclip. As for ratchet approach, on that particular pair of cuffs, the officer had to engage the second lock by hand. I don't know if the police bother to do so. Of course, the design may have improved in the 20 years since I fiddled with that pair.

In either case, you would need a piece of music wire or a flat piece of spring steel to do your deed. If one fears needing either tool, one could always carry a well-conceiled handcuff key.

## Ficer67

10-19-2003, 06:46 PM
I too have a funny story about handcuffs, I was out celebrating with my friends, the fact that I had a new job. A stripper handcuffed me to her. And she couldn't find the key at all. It was a gag, and it was meant to inspire fear or worry in me, and it did inspire some fear. The bartender was her boyfriend, he was going to kill me, what was I going to do? It was all very funny, but it was all a gag and in the back of my mind I kinda knew this. Except that the girl could not find the key that she had brought with her for this, where was she to find such a thing in that costume she was wearing. The joke was becoming stale quick.

The stripper HAD lost the key somewhere. This part of the joke was legit. And I got to go back stage, in the dressing room, and everywhere in the bar so she could retrace her steps and find the key. Her boyfriend had to go to thier apartment to get another key and he left and was gone for an hour or so. But, before he came back, an off-duty police officer had a hand-cuffs key and he freed us.

Was her boyfriend mad? YES, at her, for being so stupid. Where was the key? In her bag, on a small key ring, right where she left it.

Oh well, all of you posters have answered my question, I suppose it depends on the hand-cuffs in question. All of the other stories are hilarious too.

Ficer67

## ftg

10-19-2003, 10:21 PM
What about those plastic strip ties they use nowadays? They look like cable ties, and I can "pick" those easily with a small screwdriver. (That way I can re-use them.)

## Urban Ranger

10-20-2003, 12:40 AM
I can't. You need a very small screwdriver - one for specs, say, and you have to do it carefully. I don't think you can do it if your arms are behind you.

How to Pick Handcuffs With a Bobby Pin


You can pick a lock on a pair of handcuffs by using a bobby pin.
Suppose you're playing a prank on a friend, and you've handcuffed him to a fence. The problem is, you've lost the key and now you have to find a way to set him free. One method you can use to pick the handcuffs lock is to use a bobby pin. It takes practice to do this correctly, but once you get it down, you'll be able to unlock the cuffs and set him loose.

## Things You'll Need

- Bobby pin

Show More

## Instructions

1. 

- 1

Open up the bobby pin with your hands so it forms a right angle. Pull off the rubber tip on one side of the bobby pin.
$\bigcirc 2$

Bend the end of the bobby pin without the tip 90 degrees with your hands, making the bend approximately 1 inch from the tip. Bend it 90 degrees again, approximately $1 / 2$ inch from the tip, this time in the opposite direction, forming a " Z " shape with the pin.

- 3

Examine the handcuffs to see if you have a single lock or a double lock. Check this by looking for a window on the side of the handcuffs by the chain which goes through the base of the handcuff.

- 4

Insert the bobby pin into the keyhole and push it towards the cuff's direction of travel to open up the single lock. Move the bobby pin around while depressing the end, until the lock pops and you can take off the cuffs.

- 5

Insert the bobby pin into the keyhole and push it away from the cuff's direction of travel to open up the double lock. Rotate the bobby pin counterclockwise to mimic the motion of a key. Look through the window in the bottom of the cuff and stop pushing the bobby pin when you can see a vertical line in the middle of the window, which indicates the second lock is free. Reposition the bobby pin to point towards the cuff's direction of travel, and push until the cuff pops free.

## How to Escape from Zip Ties

In our How To Escape and Evade in an Urban Environment article, we briefly discussed escaping from zip ties.

There are quite a few hasty methods of illegal restraint, and zip ties are a method that's available to any would-be kidnapper.

A few of the other methods seen are duct tape, rope and phone cord, but with a little education you'll see that all of these methods can easily be defeated.

There are two things you'll need in any escape situation, and without these two things, nothing we'll show you will work.

Those two things are time and opportunity. You'll have to first have the time to be able to put one of these escape methods into action and the opportunity to do so.

Your captors are most likely not going to have the resources or the patience to keep eyes on you constantly, and when they don't, it's time to make your move.

## How Zip Ties Work



The best way to defeat any type of restraint is to first analyze how it works.
Zip ties consist of a sturdy Nylon tape that contains small teeth running lengthwise down one side, and a ratchet with small teeth housed in a small open case.

The ratchet is molded to allow downward pressure to be placed upon it as the tape is threaded through the open case, then springing back up to position as the valleys of the tape align with the teeth of the ratchet, locking the zip tie.

At this point further forward movement will continue to tighten the zip tie, and backwards movement will lock it.

The particular zip ties we used in all our demonstrations were the most heavy-duty zip ties we could find at Lowes or Home Depot, the Zip Ties shown in the photo with a 175 lb . rating.

We chose these because realistically if someone was determined to go out and buy zip ties to use to illegally restrain someone, they'd likely hit the local hardware store and find the toughest ones they could.

To defeat zip ties, you can either completely break the zip ties, shim them, use a friction saw or with a little forward thinking just be able to slip right out of them.

Breaking Zip Ties


Breaking Zip Ties (Rear)


Shimming Zip Ties


Friction Sawing Zip Ties


Slipping Out of Zip Ties


Dual Zip Ties


## Hand Positions

Now that we've gone over these four methods in detail in the videos, let's talk briefly on how you'll be bound, because it's equally important as the method you choose to escape.


For an exercise, so that we're all on the same page, put both of your hands straight out. Now touch your wrists together. This will be called "wrists together, horizontal." This position is the easiest to escape from by slipping out.

next rotate your wrists so your right hand turns clockwise, your left hand turns counterclockwise and your wrists touch. This will be called "wrists together, vertical." This position is not preferred, but as shown on the breaking videos, can be defeated.


Now, from the "wrists together, vertical" position, rotate your hands so the backs of them touch together. This will be called "wrists together, inboard." This is the hardest position out of the four, but can still be defeated by breaking.


The final way you could be bound is by crossing your hands at the wrists, making an X. This will be called "wrists together, crossed." This position is a bit harder than the first for slipping out of, but it's still possible.

## Passive Victim

The first thing you should always do in any restraint situation, is remain passive.
Let your captor know that there's no fight in you, that you're scared and helpless. This will psychologically lead your captor to believe that you have no plans to try to escape, and thus make what we're about to tell you easier.

You want to make every effort to present your hands to your captor before they use force to restrain you. Essentially you're presenting the wrist position of your choosing to them, hoping they'll use it.

## Notes

http://www.itstactical.com/skillcom/lock-picking/how-to-escape-from-zip-ties/comment-page1/
http://www.youtube.com/watch?feature=player embedded\&v=1ZvEXcRE4BU

I had an inmate show me how to get out of handcuffs and leg shackles all he needed was a wall or his feet. He would just pry them apart enough for them to slip open. Even after seeing him do it I still carry at least 2 extra handcuff keys on me all the time.
http://www.metacafe.com/watch/752140/escape from handcuffs with just your watch or a paperclip/
http://prop-tricks.wonderhowto.com/how-to/escape-from-handcuffs-285363/
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