

NDE Magazine

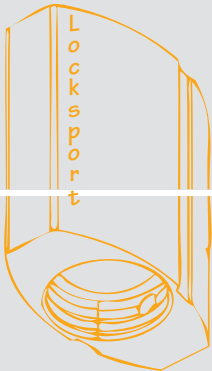
Volume 1 - Issue 1

Locksport Ethics
Man vs. Tercel
The Cutting Code
A Southern Gent
Tools From China
Some Slick SFICs



Out With The New, In With The Old, Could
Lever Locks Be The Way Of The Future?

NDE Magazine | ndemag.com



Hello & Welcome

First of all, NDE means “Non-Destructive Entry.” That’s the last time you’ll get an explanation of any of the terminology used in this publication.

In this magazine you will find photographs, descriptions, theories and interviews on the subject of opening locks. You will not find anywhere near the volume, nor the level of detail that is available on your massive interwebs.

This is a magazine aimed at those already involved in the locksport world, or those who like to keep track of it. It is, specifically, about community and culture. I do not expect you to learn how to pick from us, we will not be covering the basic theory, or explaining how to bump.

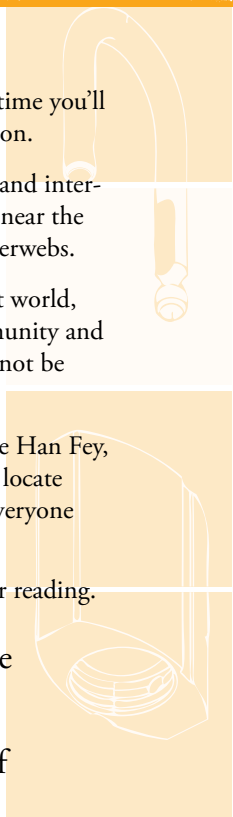
This magazine is for the passionate, for those who know names like Han Fey, Barry Wels and Marc Tobias. This magazine is for people who can locate Sneek, NL on a map. And know why it’s important. And it’s for everyone who, reading this paragraph, wants to know.

It is my sincerest hope that this magazine is for you. Thank you for reading.

Schuyler Towne

A stylized, handwritten signature in orange ink, likely belonging to Schuyler Towne.

Editor In Chief



CONTENTS



ETHICS

PAGE 3



PICK WITH...

PAGE 13



SOUTHERN SPEC. PAGE 22

A QUESTION OF ETHICS

- JOSH NEKREP

3

A GOOD PIECE OF KIT

- SCHUYLER TOWNE

10

PICK A LOCK WITH...

- PATRICK HUNTINGTON

13

OUT WITH THE NEW?

- ZEKE

15

BREAKDOWN

- SCHUYLER TOWNE

19

SOUTHERN SPECIALTIES

- MATT BLOCK

22

SPACE & DEPTH

- ZEKE

30

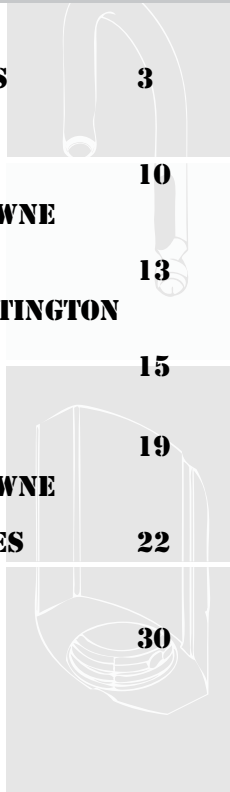




Photo by jhl

My Dirty Little Secret – A journey to the fringe of Locksport ethics.



Josh Nekrep is the president of Locksport International and an administrator of Lockpicking101.com

Ethics

Ethics in locksport is a topic I've long been attracted to. Early in my involvement in the hobby I took an active roll in discussions on the matter and continue to do so even today. In fact, the groundwork for the ethics in locksport was being laid out long before the term "locksport" was widely adopted.

In reality, it is an obvious topic. We who participate in this unconventional hobby train ourselves to defeat the very devices we use to protect ourselves. It goes without saying that there is a certain responsibility that accompanies the art. This article will attempt to push the boundaries of the ethics discussion by recounting a personal experience and, hopefully, encourage thought and discussion leading to a better understanding of what is acceptable.

When considering ethics, the obvious starting point is what has become the generally accepted 'credo' of locksport: You may only pick locks that you own, or those to which you've been given expressed permission to pick by the rightful owner. Even as I write that sentence I am very aware of how many times I've typed out those words. I lightheartedly imagine myself uttering them in my sleep. This credo is a good one precisely because it leaves little

room for grey areas. You either own the lock or you do not. You either have permission or you do not. And without a doubt, abiding strictly to this credo will keep you out of any compromising situation.

And yet, despite my ardent desire to adopt and promote this credo throughout the locksport community, I am aware of those slippery little grey areas that *can* creep in. I suppose any good rule is tested in its exceptions and our credo is no different. So, despite my firm belief in the credo I have, on one occasion, been guilty of crossing the line. I will describe the scenario, and deconstruct it under the magnifying glass of the ethics debate in hopes that we might better understand the landscape of locksport in the real world.

It was about one year ago, at Defcon 14. Defcon is a well-known hacker convention that has also found a following within the locksport community. I was there representing Locksport International at a table set up in an area called The Lockpicking Village. In reality, the Village was a sky box room in the hotel convention area. The main room had two closets in which we were required to store our gear and displays during off hours. This was necessary because the room served secondary functions outside of the regular convention hours. There was, unfortunately, only one person who had a key to these closets. On Sunday morning, the last morning of the convention, we were in the room and waiting for this person to arrive with the key to the closets so we could start setting up. As opening time grew closer we became more and more uneasy, unable to reach the key holder. With less than 15 minutes before the doors opened I could no longer wait and decided that the idea of a group of lockpickers being locked out of a closet and unable to open the Village was completely ridiculous. And so, with only a moderate amount of apprehension for what I was about to do, I pulled out my tools and went to work on the Interchangeable Core lock that was fitted to the closet door.



In a couple minutes I had it opened, we were able to remove our equipment, and open the room on time.

Sigh. At last I feel this confession of my dirty little secret has lifted the burden of guilt.

Obviously I jest. I don't actually carry around a great deal of guilt nor regret. Though I am aware that on that day, I did not abide by the credo. The question is: Was I wrong to do this? And if so, how wrong?

I am willing to accept that I was wrong to do what I did that day. I am prepared for the bar-

rage of “you could have...” and “you should have...” statements from anyone who might disagree with my actions. I can't say I'd even disagree with them. But along the way, I'd like the reader to consider: On that day, was I acting within the acceptable boundaries of ethics in locksport?

Let's consider the following aspects:

Was harm done?

I firmly believe that the “no harm done” principle is not enough to justify shady practices in locksport. I have seen plenty examples of newcomers to the community trying desperately to justify their actions with this sentiment and I cannot accept that this can be the yardstick used to determine ethical practice. If someone came into my home without permission while I was away, sat down and watched some TV, then left things just as they found them, I don't think I'd feel any less violated. Even though “no harm” was done, clearly this would be a violate of my privacy and security and therefore I would argue that harm was indeed done.

However, I do think that the aspect of ‘harm’ can be reasonably considered none the less. Though it is not enough to excuse inappropriate actions in and of itself, it clearly must be considered as a factor.

In the case of my story, I would argue that no harm was done. I am a reasonably skilled lock picker perfectly capable of picking a lock without doing damage to its components, and nothing was stolen or vandalized in the process. I think it's reasonable to say that no harm was done.

Did I have authorized access to the area?

This is perhaps a little “greyer”. There were three different groups or parties represented at the Lockpicking Village that weekend. There was Locksport International, TOOOL.US, and Doc, the coordinator of the Lockpicking Village. The person who held the key to the closet was a member of TOOOL, and there were, at the time, other members of TOOOL present in the room. Moreover, it was our gear and supplies that were stored in the closet, and we were using it with authorization throughout the event.

It would be simple enough to state that since I personally was not given a key to the closet, I did not have authorized access. This is true, though perhaps a little bit rigid a perspective to take. We, as a group, were given access to the room and its contents throughout the event, and there were times where I was the only person in the room. So, in that sense, one could argue that I was indeed an ‘authorized person’.

On this point, I would have to stand on “It’s hard to say.” Like I said – grey area.

Did I have expressed permission to pick the lock by the rightful owner?

Alright. This is pretty cut and dry. Even if I were trying desperately to defend my actions I could not possibly answer this question affirmatively. I clearly did not have permission to actually pick the lock.

So even if all other arguments stand up, mark one strike for Josh when it comes to the credo.

With careful consideration I leave it to the reader to decide if I was wrong in my actions, and if so, how wrong was I? Though the intent of this article is not to put myself on trial, I have

offered this example of a 'bending of the rules' in the hopes that we might more thoroughly consider the boundaries of ethics in locksport.

Save this one situation, I have held firmly to the credo of locksport and defended it aggressively because, at its core, I believe in it. I believe it's important. We, who chose to participate in the somewhat nonconformist sport of lock picking, have the responsibility to uphold the strictest ethical code. We must stand as best we can as shining ambassadors for our often-misunderstood art. And yet the temptation is there.

I've faced such a temptation on a number of occasions and in every other case I have chosen to take the moral high road, leaving the lock untouched. Even at times that I knew no one would ever know that I'd picked the lock I've left it alone because I feel a great amount of responsibility to uphold the credo I've worked so hard to promote. I can't honestly say why I chose to stray from it on that day in August, 2006. What I can say is that when all factors were considered, I felt 'ok' picking the closet lock. If I'm to be perfectly honest, I still feel ok about it today. However, the experience did put me squarely face-to-face with the reality that sometimes the credo that I believe in can be difficult to live up to.

It is my hope that all those who engage in locksport take the time to consider these thoughts and constantly question their own actions and motives. I think that it is only through this careful examination that we may hope to keep ourselves on track and keep the hobby of locksport pure and fun.

Josh Nekrep
President, Locksport International



While locksport is international, it's often difficult to bridge the language gap in order to meet our brothers and sisters from around the world. That said, China has been on my mind for the past 7 months. This stems from the folks at Szhuang.com, who's curious wares and strangely low prices have sat at the periphery of my vision throughout my time in the locksport world.

High Quality KLOM 31 hook picks

Recently my detached curiosity had the opportunity to convert idle musings into cold hard debt when a fellow picker approached me about making a group purchase from overseas. He happened to live in Australia and was in fairly regular communication with the folks at Szhuang. I loved the look of the tools and had



some extra cash, so I decided in the interest of consumerism and locksport, to make a large purchase.

Now, I spend roughly \$300 between the goods and freight to the US via AUS. That said? I received 159 individual picks, not including tension wrenches, and several other tools. A quick breakdown of my order:

- 2 sets of Goso picks
- 1 set of titanium coated Goso picks
- 3 sets of KLOM picks
- 1 set of no-name solid metal hook picks
- 1 set of 5 car rakes (favorite purchase)
- 1 tubular pick
- 1 jackknife set
- and a Yeya knockoff cutaway

The large pick sets come with, for the most part, nice cases and some automotive and dimple tools, which most of us in the english speaking world aren't used to in inexpensive starter sets. The photo to the right shows a snapped KLOM pick so you can see they don't have full body tangs, but I wouldn't have expected that for the price.

They feel stronger than the American-made



products I've tried, though lacking the flexibility I'm used to. They do bend before they break, as evidenced by the photo below, so I wouldn't call them brittle, as I first thought, and they do take a decent amount of force to bend out of shape, but unlike the American picks I'm used to, they don't spring back into shape.



The automotive tools, in particular, impressed me, though at the time of this writing I can't seem to track them down, which is embarrassing. The dimple tools were also impressive in that they not only provided dimple rakes, but also single pin picks.

As far as the standard tools went, there is an incredible variety of picks and a lot of duplicates, but when you're buying multiple sets that is to be expected. The best feedback comes from the thin plastic handled KLOM set. The rubber sets and the thick plastic of the Goso's provide minimal feedback, though having handles certainly contributes to comfort. The rakes, though interesting, didn't appeal to me, save for one offset small S-rake, none were particularly effective in my hands.

All in all I believe they're well worth the money spent, though I don't believe they'll get regular use in my rotation. If you'd like to purchase from Szhuang and want an English language contact, feel free to send an email to szhuang@ndemag.com and it will be forwarded to someone who can help you out.

PICK A LOCK WITH:



Picker: Patrick Huntington
Lock: 91 Toyota Tercel
Price: N/A
Tools: Auto Jigglers + Air Jack Kit

MAN VS. 91 TERCEL

My main interest has always been picking normal, pin tumbler, locks. Except for the one day when I purchased auto jigglers to try and open the lock on my 91 Tercel. After a few hours of trying with no success I knew one day I would gain access to the car non-destructively. I decided to buy an automotive air jack kit. It surprisingly opens most cars. Well that is what it said on the internet anyway. Here is my battle:

I pull my car into the garage. (6:00 P.M.) I start to pry my door open when my good looking female neighbor looked in to see what I was doing. I closed the garage door and am glad that awkward situation is over. My guide on how to use the tools was a joke. A one page instruction book with black and white pictures. Very lame. My main problem was fear of prying the door too far open and damaging the door or weather sealing.

In the process of prying my door open I somehow sprain my rotator cuff and I feel intense pain and cartilage being torn, so I go and have a rest. My mom gave me a Pomtini to ease the pain. As they say in showbiz, move over cranberry juice, there's a new kid in town!

I finally opened the door enough for the airbag to fit. I was so stoked I began to laugh like Dr. Evil. I started to pump up the airbag to open the door enough for my long reach tools to fit in. It reminded me of those old school Nike shoes or a blood pressure checker. Now the main problem with my car was the vertical locks. They are not your normal style vertical locks. They are made of plastic and are very thick and wide. My remote control vertical lock puller was not working and I was starting to worry a bit.

I don't think I mentioned I locked my keys in the car to make it more realistic. At this point I knew that was a bad idea. The problem was that I couldn't grasp the inside vertical lock hard enough due to its large size. I also tried two long reach tools with no success and was starting to freak out a little. I had a party to go to that night. I decided to try the vertical lock puller and pull on the handle very hard to make a tight squeeze around the lock. It surprisingly worked with no damage to my vehicle. At 6:48PM I had entered my vehicle. It did take a lot out of me though. In the end I was a little sweaty and had finished my entire Pomtini. The Tercel had finally been beaten and it made my party that much better.



Patrick stays cool with a refreshing Pomtini

Out With the New In With the Old?

In the United States we have become used to “newer” technologies. Standard auto locks are becoming laser track locks, keys are being replaced with access control systems that have audit capabilities. Many of these advances are wonderful and add an ease of use factor along with better security. Sometimes however, what we perceive as better is only newer.

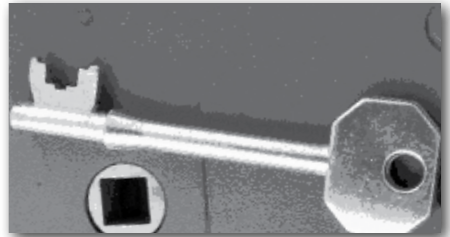
Years ago, it was not uncommon to find lever locks installed on homes all over the country. Most were simple with only a few levers and no curtain. The technology of household lever locks was not refined as it is today. These days, you are hard pressed to find a lever lock installed residentially in the United States. We have grown away from using them for more convenient, smaller keys. Most homes and businesses in the US now employ a standard pin tumbler lock. A shocking percentage of these locks are very low security such as Kwikset.

In light of the recent growth of available information on lock picking and bumping these locks do not hold the small security factor they once did. This is why it strikes me that a new market could open up in the United States for the lever lock once again. The lever locks of today have been improved over the US lever locks of yesteryear. The BS rated locks are affordable and very tough to pick, impossible to bump, include a hardened anti-drill plate to protect the lock, and have a very long service life compared to some of the grade 3 hardware offered in the US currently.

Current British Standards of locks could be adopted in the US and put to good use. As stated above, these locks take a much higher degree of skill to pick than most of the standard pin tumbler locks in the US today. These locks employ a curtain that is designed to prevent the entry of all but specialized picks that are many times more expensive to buy than stan-

standard lock picks. Combining this with a design that makes bumping impossible and anti drill plates you have a lock that is really a cut above most of what is in service in the US today.

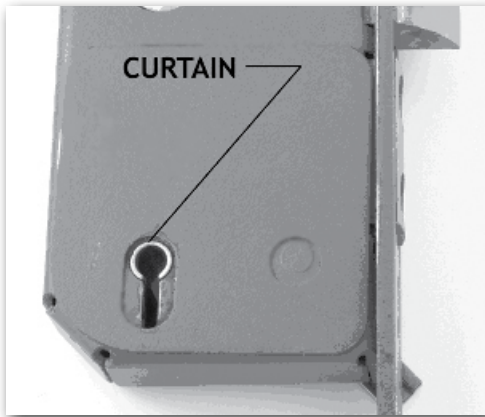
Pictured below is an example of a key for most US locks. The key is for a 5-pin tumbler mechanism made by Kwikset. Next to it is a key for an ERA brand 5 lever curtained lock.



Clearly we can see that the key for the ERA brand lever lock appears to be very dated. Most people in the US would simply believe that the pin tumbler system that uses the Kwikset keys would be more secure than the lever lock system. Nothing could be further from the truth.

The lever lock uses a curtain to make picking much more difficult and require more specialized picks. A pick tool for each size of curtain is required to pick these locks, so not only are the picks for these locks very expensive, but just buying one will not pick every lock you come across. The next picture notes the location of the curtain. The second picture shows how the curtain works and the lever pack.

As you can see, the curtain only allows the bitting surface of the key to contact the levers after the key has been turned about 100 degrees. This prevents pickers from using a set of

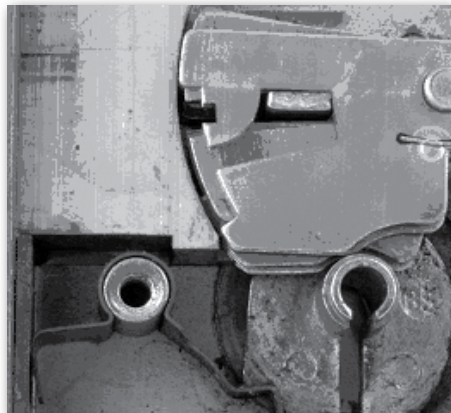


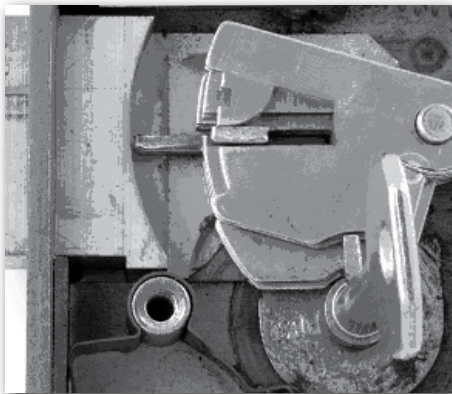
wire tools that are very common and cheap or easily made.

A picture below details how the curtain and key interact with the lever pack. You can see where the stump enters the lever pack. When the gates in the lever pack are not lined up it prevents this stump, which is attached to the bolt assembly, from moving back to the unlocked position. You can also note the false gates in the levers. Usually, at least 3 levers in the pack have false gates.

These false gates require great skill to pick past. Due to the design of the false gates it can be harder to determine which levers are picked to a false position during the picking process but that is beyond the scope of this article.

These features, combined with the anti drill plate and defeating bumping, make this an ideal lock for homes and small businesses which do not require large masterkey systems. This is because large masterkey systems are not practical due to the low number of key differs available in these locks.





There are many great high security solutions available in the US. Medeco, Abloy, Mul-T-Lock, Bilock, Schlage Primus, ASSA V-10, amongst others. The problems with these systems are the cost. While a lever lock such as the one pictured above could be sold in the US for anywhere from \$35-\$50 new, which includes the knob mechanism and a deadbolt, a high security deadbolt from Medeco will cost you upwards of \$150 without a knob assembly or knob cylinder. Multiply that figure for each exterior door on your home to see the savings.

My point is not that these lever locks are better than any of the high security locks listed above, but that many home owners would be more willing to use the lever lock system if they knew the advantages of it compared to a Kwikset or standard Schlage lock system. It has a huge security advantage over these normal locks and at about the same prices.

In the US, the consumers are very price oriented. They are always going to buy cheap for the most part. If something can be done to offer a “cheap” solution with more modern security standards, it could make most all American homes more secure than they are today. The lever lock is a possible solution. At around \$35-\$50 each you get the latch mechanism and deadbolt. This is very cost competitive with grade 3 hardware installed in the US today when you add the cost of a knob set and deadbolt.

Just some food for thought.

Article and photos by Zeke.

Let Me Break It Down For You...



LFICs & SFICs: First of all, I hate it when people try to pronounce those. That's just me though. These efficient locksport wordsmiths are likely equally annoyed that I take the time to vocalize every letter and thereby waste precious time which could be spent attacking the control sheer, but I like to talk about locks. It's my favorite thing to do and it's lead to me

uncovering a lot of clarity in topics that are often discussed in vague terms and half-right descriptions. ICores are often victim to this sort of thing.

First - L(or)SFIC is the abbreviation for Large (or) Small Format Interchangeable Core. Now it's often said that LFIC locks function under completely different rules. Not the case. While there seems to be a wider range of LFIC locks in production, the variety comes from different brands, not by virtue of their prefix. Each system is addressing the basic desire to replace a lock quickly, with little training, and with minimal labor. There are a shocking number



of ways to skin this particular cat, and for those of you reading along at your computer, why don't you look up US patent number 5076081 to see one of my favorite concepts.

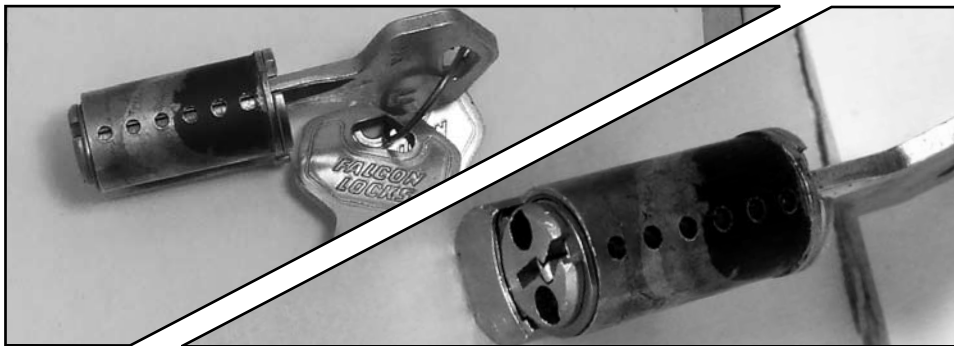
Today I'm going to cover the basic idea behind the most common ICore systems. This is the idea employed by BEST, Falcon, Medeco, ASSA, etc. but first, a final note about the other popular (though less secure) method employed in interchangeable cores. The idea is simple, on a 6 pin lock, there is a 7th chamber which holds a retaining pin. The control key, then, is simply an extra long blank with a notch cut in the end that lifts the retaining pin up, and allows the core to come free. Anyhow, on to the much cooler subject of control sheer lines.

As you can see in the image to the left, your typical ICore cylinder has 3 main parts. The plug and housing you should already be familiar with, but what makes them interchangeable is the sleeve. In this model (Falcon 6 pin SFIC) the control sleeve functions across all 6 pins, creating a completely separate bitting for the control key. Just like the operation of the plug acting on it's normal sheer line, the control sleeve is free to turn when it's pin stack is raised to it's sheer. There is an important distinction here, however, as the control sleeve is not turning independently of the plug. The pins continue to extend through the operating sheer line and the plug will move with the sleeve to about 15 degrees off center. At this point the sleeve has pulled it's nib back into the figure eight body of the lock, and, unobstructed, the lock will pull right out of it's shell and into the waiting hands of the locksmith, maintenance person, or landlord.

So then, why are these so hard to pick? They HAVE two sheer lines. We all learn fairly early on that two sheer lines = all sorts of easy. This is true of non-IC master-keyed systems, but when you add a control sheer you now have two sheer lines that are non-interchangeable. You cannot mix and match your attack. If you set one pin to the control sheer and five to the operating, it's not going to turn.

Picking these locks either takes a lot of trial and error, or a little luck. However, the SFIC tension wrench changed all of this for a time.

If you get the chance to play with an ICore out of it's shell (just the figure eight, with nothing around it) press on the nib of the control sleeve for tension while you pick, no wrench. You should be able to set the control shear much easier, as you won't be putting any tension on the operating shear, so those pins shouldn't bind. The SFIC tension wrench replicates this by gripping the holes in the bottom of the sleeve with very shallow teeth. In this way you are only turning the control shear as you pick, and should be able to set it without any interaction from



the operating shear. They have, of course, adapted to this technique and modern ICores have modified these holes to be useless for gripping. So, next time you're confronted with an ICore, or just someone spouting off about one, you should be a little better prepared for the match.



Stacks upon stacks of picks waiting to find a loving home at Southern Specialties

A NOTE FROM THE EDITOR

I'd like to precede this article with a personal note. When I sent Matt Block to tour the shop of Southern Specialties, I was worried. Somehow, in the back of my head, I thought "Isn't this just going to turn into us supporting one pick maker over another?" which has some pretty big implications. But, "no", I thought, it'll just be a cool experience for Matt and get us some good information on what goes on in the pick making process.

I believe, now, that I was right to be worried.

As it turns out, Rich, proprietor of Southern Specialties, is a pretty interesting guy. When I put out a call to all of the various pick manufacturers I could think of for a one off bulk order to help promote the magazine, he offered me the lowest price for a better product than anyone else. This was days before he would find out I was starting NDE. As we completed the order I mentioned that I'd love to have someone come out to tour his shop and write an article. He was excited, and not for the magazine, he was excited to be talking with someone who had a genuine interest in his end of this common community. How many people do you imagine he deals with every day who only care about how his picks open locks, and not how they come to be? He and Matt set about planning a day to get together.

I sent Matt some money for Gas, as I wasn't sure if he'd be getting anything out of his trip

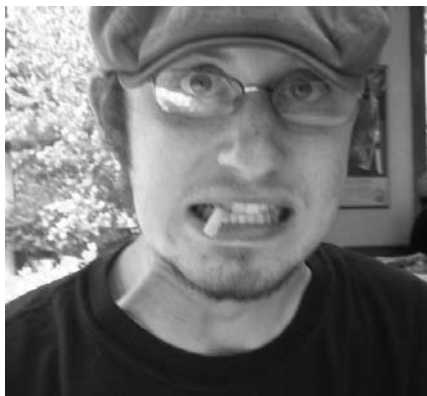
other than the experience. Turns out he ended up with plenty of picks and tools, so I hadn't needed to worry after all. I'm telling you this because I don't want anyone reading his article and thinking "I bet he's only saying nice things because he got free stuff." I'm telling you, right here and now, that he did. And it came with no obligation except that Rich wanted a copy of the magazine when it was out. I trust Matt, and those of you who know him, know how scathing he can be. I knew that the possibility of free tools wouldn't change his opinion of anyone.

Here's what he said to me. This is the reason I'm writing this forward:

"Shoes, I don't want to pressure you or anything but I feel like Rich has some good ideas and he is an inspired guy, he is making progress in an industry that hasn't seen change in like, what, 50 years? I think it would be neat if you worked out some kind of deal with him to promote his stuff."

Well.

I have, time and time again, refused to listen to people who have asked me to take on advertisers, or to recover the cost of hosting this magazine by charging for it. I have sunk plenty of money into this and I take a great deal of pride in providing it completely free of advertising or fees. So you will not see any advertisement for Southern Specialties here.



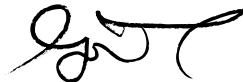
Our roving reporter stops for a snack.

You will not find, the next time you log on to lockpicktools.com that NDE readers get a special discount, and you will never see me walking around with free tools that I received from Rich. That's probably what burns me up the most. He just had to be such an interesting guy that I can't even cash in on his great ideas.

I hemmed and hawed over adding this personal note, but I think it's important. The reason I strive to keep this my own project, without ever being financially beholding to anyone, is to provide a clear, unmuddled voice when NDE decides to cover a story. As much as I imagined that voice to be aimed at those who denigrate our community, I realized it is at least as important to point out those, even in a commercial setting, who are worth recognizing.

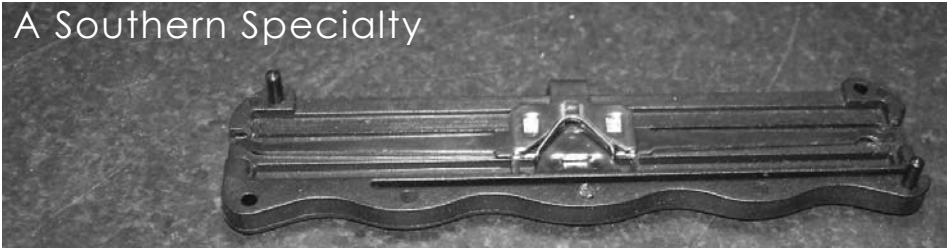
So, it is, I hope, with a clear, unmuddled voice, that I recognize Rich as one of our own. A true and valuable member of this community. I will happily recommend him to anyone I associate with and I look forward to seeing his innovative work continue. This is the best promotion I can offer you, Rich, and I believe you deserve it. So, download this issue, print it out, mirror it on your site, digg it, reddit it, or whatever else it you want, but if you can get this article into the hands of a new picker considering buying tools, or an old picker who wants to explore some new ideas, they will not be disappointed.

Schuyler Towne

A handwritten signature in black ink, appearing to read 'S. Towne', with a stylized flourish extending to the right.

Editor In Chief

A Southern Specialty



Photos and article by Matt Block

I was recently given the opportunity to visit Southern Specialties, a lock pick manufacturer based in Cleveland, Georgia. By given I mean that Schuyler said “you have any interest in flying to southern specialties shop, taking a tour, some photographs, meeting the owners and asking a few questions?” to which I replied (in so many words) “Hell yes!”.

After our initial conversation I had these visions of grandeur; huge punch presses and water jets, lasers and sparks! Needless to say I was quite excited at the prospect of seeing the whole operation. Schuyler kindly put me in contact with the owner an intriguing man named Rich. He and I had a brief discussion through e-mail and telephone which ultimately led to me making the four and a half hour drive to GA to see the operation.

Upon my arrival in Cleveland my initial vision was thoroughly slashed to bits. After driving several miles from civilization, and finally finding the street that my directions said I should follow, I was almost certain Schuyler had led me to my death and I was about to be ingested by Rich, and likely his family too. A long dirt road (path really) led towards what appeared to be more dirt and trees. As fear took over I nearly panicked when I literally saw graves on

the side of the road to my right. I knew I was drawing near the end of my trip (and life most likely) so I decided to press on, it couldn't get much worse from here. Thankfully at the end of the road was a rather charming house and a large metal shop, "Finally," I thought "I'm safe!" but then noticed the rather large fellow on the porch in full camouflage, holding a ridiculously large knife. Queue the fear. At this point I was certainly dead anyway, so I might as well introduce myself politely.

After discovering that the large fellow was in fact Rich's son, and he was not a cannibal, I was invited into the shop to meet Rich. The fear was beginning to subside and I was starting to get a true sense of Southern Specialties. Rich was, for many years, owner of a tool and die company, but has since retired from that and spends his time manufacturing picks as supplemental income. Because of this Southern Specialties is not a faceless company, or even a large company. It is simply a man and his wife (and sometimes their children) who

have a passion for making tools that are not only less expensive than their competition, but better quality. Read that sentence again because it is the theme of my experience in Georgia. Southern Specialties is not a company of quotas and budgets. It is a company based on pride of workmanship, hatching ideas and making them into a reality.

There are several central pieces of equipment used in the pick making process at Southern Specialties. The first and most obvious is a punch press,



The punch press shoves off the husks of

which takes a die (kind of like a cookie cutter for metal, for those of you who are sheltered) and punches out various pick and tension wrench shapes. Rich makes his tools out of stainless steel. It comes on a large roll and is fed into the punch press by a pneumatic process. The punch is foot pedal operated and is capable of producing approximately 3,200 pieces per hour. As the pieces are ejected from the press, they fall into a container where they are stored until that particular run of production is completed.



The deburring tub doing its job.

As many of you know, a punch press leaves a burr along the edge of a pick. A rough edge on a pick makes picking more difficult because it is harder to feel the smallest amounts of feedback from the lock when all you can feel is the roughness of the picks surface on the pins. Think of it this way, is it easier to hear someone whisper with many people talking at once, or when you're all alone. Not to mention that the smoother the pick is, the easier it will travel through the lock. This is one area where Southern Specialties is trying to outperform the competition. Every piece produced is placed in a small tub which is filled with bell shaped pieces of metal, and then vibrated violently. After some time the metal bells will remove the burr from the edge of the piece, and produce a slightly polished surface. This process (albeit far from perfect) is a relatively simple step that produces a product that is far superior out of the box. Rich said "when I send out my product I'm not going to send out any shit, even if we have to finish it by hand." and that's the way he truly feels. If he is going to spend the time, energy, and money

required to produce a product, it has to be something he is proud of, plain and simple.

Southern Specialties is capable of producing their products efficiently because the dies are all made in-house. A Wire Electro Discharge Machine is employed to create a die for each new pick design as they are needed. Each part of the development and manufacturing process is handled at the same location for most of the products which reduces overhead cost, and the time it takes from concept to production. This is merely the start of the things Southern Specialties chooses to do differently. Beyond better materials and better finishing, Southern Specialties wants to have better IDEAS. The main line of lock picks normally found in any set has been the same for 30 years or more. There have been small innovations, for instance the jackknife sets. Although these sets are compact and easy to carry, they generally have a terrible feel because they are bulky, and poorly manufactured. I believe the key to resolving that is through innovation in design and materials, (better locking mechanisms, and stiffer materials for instance), and Southern Specialties seems to agree. They have also produced a selection of pick handles with a ripple design (which is created in a separate press after the pick is stamped out) to provide a better grip with minimal reduction of feedback.

My conversation with Rich that day left me with a belief in this one idea: more than anything, lock picking and locksport needs innovation. There should be innovation in tool design, methods of picking, formation of groups – everything. Rich believes in that idea so strongly that our conversation almost always led to the place where innovation most often occurs, the community. Rich was very interested in how the community felt about their tools. He wanted to know what they liked and disliked, and how they were designing their own tools. Rich's passion is not new; he has been producing locksmith tools since 1979 and has always tried to innovate rather than duplicate. This article was

not meant to promote one man and his company, but to promote the ideal of innovation in a field that has not seen change in far too long.



More photos available at ndemag.com

Space and Depth keys – The Lost Art in Code Cutting

Article by Zeke

I have in the past when learning aspects of the locksmithing trade made all of my code cut keys utilizing a duplicator and space and depth keys. This art is becoming an unknown skill more and more with the new generations of locksmiths because of the popularity and availability of stand alone code machines. Today's code machines have progressed from the early ilco universal 1's, framon #1 & 2's, and HPC 1200's to the new computer driven machines by Ilco, HPC, and ITL amongst others.

Today's computer driven machines are shipped with on board programming for virtually every lock in use today. The

machines are easy to use and some even offer the option of masterkey system generation etc.

Before all of these advances, locksmiths relied on code books. Yes, code book. Not the software we see today, but giant paper manuals that could fill a work bench in no time at all.

40 years ago, the code software and computer driven machines were likely not even dreamt of. At that time, you relied on your code books, a duplicator, and space and depth keys. Most locksmiths had a wall full of these space and depth keys right behind their duplicator. The speed of the system back then was revolutionary.

Today some locksmiths still cut by space and depth. Many hobby pickers also choose to cut by space and depth as a hobby budget does not really include the cost of a dedicated code machine. In this article I am going to show you the proper way to generate high quality code cut keys using this old system.

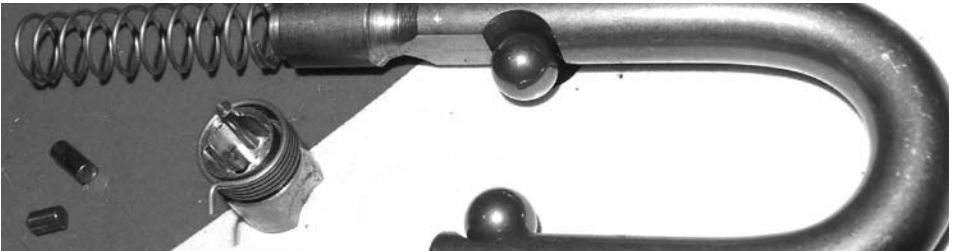
I have heard many methods explained to me on just how one should cut using space and depth keys. Many methods I have heard from hobbyists and some I have heard from young locksmiths. The problem is, none of these methods were the proper method. I have heard everything from start with your first cut at the bow and work towards the tip, or start with the deepest cuts first then work your way shallow. I have tried many of these methods and mixtures of these methods to produce what I would consider acceptable keys. None of these methods however produced a key that was the quality of my dedicated code machines.

During my time working as an apprentice in a local shop, I have been learning several different methods to achieve the same final result. Cutting to code by space and depth keys happened to be one of these methods. I am going to explain the process which is simple and straight forward but as I said is overlooked in a lot of today's lock shops.

Let's say for example we have to pin some schlage locks. We settle on a code of 51670. To properly cut this key we grab our blank key and install it in the vice of our duplicator. Select the proper S&D key set and get ready to have some fun. We insert our #0 space and depth key. Properly adjust keys in the vice using the shoulder stop and cut a #0 in all 5 positions. Once done, we will remove our #0 key and install our #1 S&D key. We then proceed to cut all positions except for the last cut to a #1 depth. At this stage, we remove our #1 S&D key and install our #5 S&D key. We then cut a #5 in positions 1, 3, and 4. Remove the #5 S&D key and install the #6 S&D key. We then cut a #6 in positions 3, and 4. Finally we remove our #6 S&D key and install the #7 S&D key. We make our final cut, a #7 in position 4.

Once complete, we remove the S&D key from the vice and remove our newly code cut key from the vise and debur it with a nylon or wire brush wheel.

The process we are using is progressing each space deeper as we move through the cuts. The result of this process is a very clean cut key with proper root depths and smooth peaks between cuts. The keys produced in this manner are such good quality that one will have a hard time telling this key from a key cut to code on a dedicated code machine.



CREDITS AND THANK YOU TO

ARTICLES:

Zeke
Patrick
Josh
Matt

A humble beginning...

Thank you to everyone who picked this up in any format. It was a small first offering, but we have big plans for the future.

On a personal note, I'm floored that this has actually come off. I cannot tell you the number of things in my life I've cared passionately about for a moment in time and then lost them by the wayside. It was a force of will that several people, primarily those listed to the left, have pushed me to make good on a promise.

I am so grateful that they did.

PHOTOS:

jhl
Zeke
Matt

Here's to the people who bring out your best.

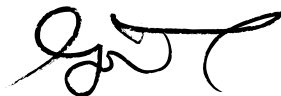
And here's to our best only getting better.

WEBSITE:

John

SUPPORT:

Stephanie
Everybody

A stylized, handwritten signature in black ink, appearing to be the initials 'JST' or similar, with a long horizontal flourish extending to the right.

NEXT MONTH IN NDE

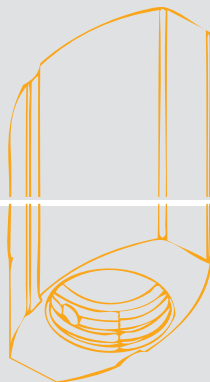
BILOCK

WHY LOCKSPORT MATTERS

**LOCKPICKERS...
AND THE PEOPLE
WHO LOVE THEM**

AND MUCH MUCH MORE...

**IF YOU CAN MAKE
A KEY WE CAN
MAKE A PICK**



NDE MAGAZINE © 2007