

Jake Jakubowski Presents:

*Pure Jake:
The
Book!*

Johnny L

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Dedication

To Dan Floeck who thought it would be a good idea.

To Pete Gamble who seems to think that all I have are good ideas.

To a great lady, who's no longer here, but while she was, she set my course without ever realizing what she had done for me. My aunt, Patricia Doerr Bostain.

But, above all, to my wife, Christie who believed that I could; encouraged me when I needed encouragement and refused to listen to my excuses...

And, to a long-ago newspaper editor who didn't tell me I couldn't write worth a damn—he simply suggested I might be happier if I sought employment outside the field of the journalism!

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Foreword

“Pure Jake — the Book!” Has sort of a nice sound to it, doesn't it?

So, what's this book all about?

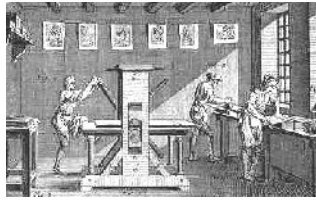
That's an easy one to answer. It's about me. Well, that's a little too *trite*. Actually it's a book that is written to help you understand why I write what I write and how I got to writing that way to begin with.

Now, you might want to ask: “Well, why would you write a book about what you write?” That's a fair question too. And, like the first one, it's fairly easy to answer:

I started writing long before I became a locksmith. I never earned a whole lot of money doing it, but I had this urge to put things down on paper. Sometimes it was pretty good and sometimes even I didn't like what I had written. And all too frequently, the various editors that I submitted my work to didn't care for it either!

But back to the question: I've written this book to help you understand a little about who and what I am. A book that will give you a little insight into why I write what I write. Besides, I think some of what helped me develop my philosophies and outlook on life, in general, will give you a laugh or two.

Another reason for writing this book is that I have written a fair amount of material that has been published *outside* of our craft and a lot of my regular readers may not have access to the publications in which those articles appeared and may not be aware that I can focus on something other than locks!



I guess my first “writing” experience for a bona fide magazine was when I wrote a few articles for a religious publication that was printed in Hagerstown, MD. I also worked in their pressroom. They needed writers, couldn’t pay for them and I stepped up and volunteered. They accepted. So, about every month or two I would type out (on a manual typewriter) five, or six hundred words on sin, salvation and the evils of smokin’, smoochin’, sex and slander.

At any rate, I wrote for the paper and I wrote poetry (Not bad, not great — definitely not great!) and I tried my hand at writing short stories. The publishers of poetry and short stories were apparently not as tight for writing talent as the church paper (Which had world-wide circulation, by the way!) was: so, my poetry and short stories languished in my “portfolio” and, for the most part, never saw print.

Later, I moved aback to Annapolis, Maryland and with all of my “*journalistic experience*”, I decided that I wanted to be a reporter! After all, I had been writing, getting published (Yeah, I know it was only a monthly church paper, but I was published!) and worked in a pressroom. I figured (A figment of my immaturity?) that I was capable and would soon be in high demand.

When I walked in to the *Evening Capitol*, Annapolis’ only newspaper, I went straight to the editor’s desk and told him I wanted a job as a reporter. Of course, the first thing he asked was where I had gone to school.

That was strike one. Since, four or five years previous to the interview, I had been invited to leave Annapolis Jr. High (I had lived in Annapolis before going to Hagerstown) and was strongly urged not to come back. I’ll fill you in on those details later on.

Then the editor asked me what writing experience I had. And I glowingly told him about my religious articles in the "*Way of Truth*". He didn't seem any where near as impressed as I thought he should but ... well; I figured it was because he wasn't all that much into religion.

Then he asked me if I'd mind writing a news story for him! Would I mind? Man, that's why I was there, right? So, he told me to write a story about a house fire on Cathedral Street and have it back to him in twenty minutes! Wait a minute! Twenty minutes wasn't all that much time.

He explained that if I was in the office and there was a deadline to be met, I'd have to meet it. I'll give the guy credit. I wrote the "piece" and he read every word of it — without a snicker, grin or guffaw. When he finished, he thanked me for coming in and suggested that I might be far happier if I sought employment *outside* of the field of journalism.

I was crushed! I was devastated! I was ... well ... I was embarrassed.

After all, I had already picked out a pretty neat snap-brim hat and could envision myself with a card in the hat band that read, "**PRESS!**" Now, here I was being forced to look for gainful employment away from what I thought was my chosen field of endeavor.



It would be another seven, or eight, years before I again made an attempt to write for a newspaper. But, I never stopped writing. And, I never stopped getting rejection slips. However, since I had to find a way to feed my frame and protect my typewriter from the elements; I had to find a job.

That job came along in the guise of a fellow I met in a coffee shop one morning. Cecil owned a car dealership and he said he was looking for a good salesman — I was him!

I'm getting ahead of my story!

As I mentioned it was a while before I tried writing “*professionally*” again; but I managed through the years, before I became a locksmith and began writing technical articles for TNL, to get published on occasion.

In the early 70's I was writing an article titled *Cleanin' Up!*” which was a feature in a couple of Southwest Florida newspapers (Like the old *Cape Coral Breeze*. See page 24). An occasional Op-ed piece here and there and an even rarer magazine article (*Citrus Industry Magazine*. See page 26) to keep my interest from flagging. I guess, I kept writing because I was too dumb to know that I couldn't do it.

The fact that I lacked much of a formal education never entered my mind. The fact that I was not a great typist didn't slow me down one whit. In other words none of the negatives meant a damned thing to me. I wanted to write — and, by golly, if no one wanted to publish it; that was their problem!

That drive manifested itself while I was in my late teens and never went away. I guess a large part of that drive is due to my aunt: Pat. But, more on that part of the story later.

Now, I write on a regular basis and even make a little money doing it. Not because I'm a great writer but because I'm stubborn and managed to find a niche that allowed me to build a portfolio that I could use to “crack” other markets.

But any success I may have as a writer stems from the time when I was encouraged to leave school. That may sound strange, but it was my disregard for schooling and my

indifference to the rules of the road — so to speak — that eventually allowed me to gain enough knowledge and experience to construct coherent sentences.

There I go getting ahead of myself again. If you've read anything that I've written in any of the trade journals (TNL, DHI and ILA's publication) you'll know that sometimes I can be a little funny. Sometimes I joke. Sometimes I teach. Sometimes I get a little maudlin. Sometimes I pontificate. And — sometimes I manage to twist someone's chain and make them howl in rage.

Whether you've read something that I've written and it makes you giggle in your grits. Or, you read something that I've written and it makes you choke on your coffee because you're upset. Or, if you read something that makes you take a closer look at yourself and your business — then I figure I've done my job.

Not everyone is going to agree with everything I write. Not everyone is going to dislike what I write, either. But everyone will have to make a decision. And, when you read this (whether you disagree, or roar with mirth) you'll go away knowing that what you've read is:

Pure Jake! ©

Some of This and Some of That

Gitch'er-red-ripe-waaatermelllonnnn!

Today, Baltimore has its share of *street vendors* — just like any large city. You'll find them set up on street corners, next to buildings in the middle of the block, on the corners of gas station and convenience store lots. Wherever there's a promising spot for them to set up their tables and boxes of merchandise.

These vendors sell everything from knock off *Rolexes* to copy-cat perfumes, T-Shirts, souvenirs, food and some even offer to do your portrait in charcoal.

When I was a kid in South Baltimore, the street vendors were the hucksters that traveled the streets and alleys selling produce from a horse-drawn wagon. I may have been seven or eight when I got a job as a helper on an "Arabber's" wagon.



The wagons we worked off of were much like the one shown above. However, the clothing on the driver and the kids standing around would indicate that the picture is from the early 1900's and I'm unsure of what city the picture may have been taken in.

Regardless, *Arabbers* were an icon of those childhood years I spent in Baltimore. And their wagons could be spotted on East Fort Avenue loading up from their wholesalers. The wholesalers worked out of a storefront similar to the one shown in the photograph on the preceding page.

Anyway, the *Arabbers* were entrepreneurial-type guys that came through the neighborhoods, selling produce, on Saturday mornings. Selling peas, tomatoes, potatoes, corn — and other good stuff from their wagons. Guys who often hired kids like me to help them out.

As a helper, I was the one who ran the produce up and down the steps and into the houses and in general did whatever had to be done that the huckster was unwilling to do.

I don't know where the term "*Arabber*" came from, but as close as I could get was that it was a name originally applied to homeless kids. Apparently because those kids wandered the streets like "*...the Arabs in the desert!*" Regardless, these entrepreneurs were called Arabbers.

Sometimes the "boss" would sit on the wagon seat and sometimes he'd walk by the horse's head as he made his rounds almost singing his chant:

"I got peaches, taters an' corn. All pic'd fresh this very morn! Gitch'er-red-ripe-waaatermellonnnnn! Fresh peas an' 'maters an' new sweet 'taters! Gitch'er-red-ripe-waaatermellonnnnn!"

He'd sometimes vary his chant with: *"Cantalowwwwp! Cantalowwwwp! I got cantaloupe and honeydew; I got apples, pears an' oranges, too! Gitch'er Cantalowwwwp!"*

We might stop at the end of the block, or at the middle of the block and the housewives would come out to the wagon and pick, poke and prod the produce to test its freshness and smell its aroma. Me and the other helper would bag and carry their purchases back to their front door for them.

Occasionally, a housewife would lean out of her window and yell: *"Y'got any 'maters, hon?"* And the huckster would reply: *"I got An'rundels right off the vine — a nickel each and three for a dime!"* This meant he had Anne Arundel County grown tomatoes. Mrs. Rosen would likely holler back: *"I jes' need two, hon, send 'em up but make sure they's firm!"*

I would put two tomatoes in a bag and run the bag upstairs (it always seemed that the deliveries were up at least two flights of steps and sometimes more) collect the money and bring it back to the huckster. Of course, if Mrs. Rosen gave me a quarter, I had to do the roundtrip again to bring her back her change! Every once in a great while, and I do mean on a rare occasion, I'd get a nickel tip!

On a good day, I might make fifty cents (including tips)! When I wasn't "working" the stock, I was bagging or cleaning. I sort of learned on this particular job if you had time to lean, you had time to clean. I mean the Arabber expected a full day's work for the twenty-five or thirty-five cents he'd pay you.

But look at all the fresh air and exercise I got! That had to be worth something, right?

I remember one long, hot summer day when we finished the route; the guy paid me and the other helper off

in oranges! It had been a slow day for orange sales and these were getting a little on the soft side. We both went home with a dozen oranges stuffed into our shirts! Bags were expensive!

If I never learned anything else from my Arabbing days, I learned to ask how much and **how** I was getting paid! Of course we couldn't complain too loudly or long about working conditions and low pay or we'd be hunting for another wagon to work off of.

The other thing I learned about "doing bidness" was that it was better to own the horse and wagon then work for the guy who did!

"READALLABOUTIT!"

Another way for kids to make money in Baltimore was to sell newspapers! I'm not talking about a "paper route" that you ran everyday on a bike, or walked around the neighborhood delivering the evening paper. I'm talking about working on a street corner and "hawking" the papers you carried under your arm.

"Readallaboutit!"

Readallaboutit! Gitch'er Sun papers here!" I sold papers for a nickel a piece. I got a half-cent for every paper I sold! That meant if I could sell twenty papers a day, five days a week, I could make fifty cents a week!



Now, you have to put that seemingly paltry fifty cents a week into perspective. Today, having only fifty cents in your pocket is almost the same as being broke. In the early 50's, a nickel would buy me a Coke. A dime would get me a hotdog. Ten cents was the cost of my admission to a movie and candy bars were a nickel each! So, the fifty cents a week that I could earn actually put me in a relatively enviable financial position when Saturday rolled around and it was time to go to the movies.

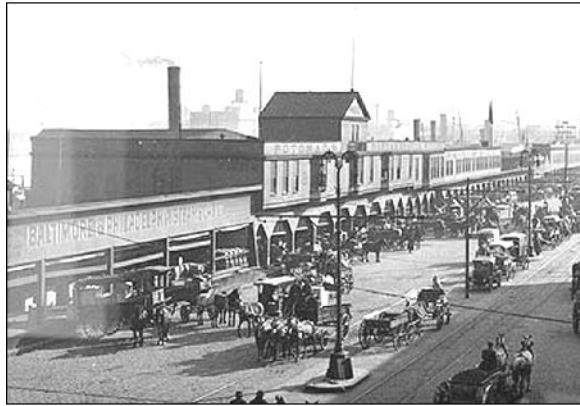
Besides, there was no such thing as "extra money" around the house, back then. Especially if that money were for movies and stuff that kids wanted to shove in their mouths while they watched the latest adventures of Roy Rogers or Superman!

The corner that I sold newspapers on was the corner of Light Street and Cross Street. It was at the back, or Northwest, corner of the old Cross Street Market. I'm talking about the old one that burned down in '51 and was replaced by the current building in '52. That location is about six blocks south of the Inner Harbor. Back then, the *Inner Harbor* was not the trendy tourist attraction that it is today.

Heading north on Light Street from the Cross Street Market, today's *Inner Harbor* was not even a figment of someone's imagination in the early 50's. On the left (west side) towards Pratt St., was McCormick, makers of *Old Bay Seasoning*®. No self-respecting steamed crab eater would think of using anything *but* Old Bay on their crabs. Or, they'd sprinkle it on their



shrimp and fish. It was (and I guess still is) a “*Balmer*” thing. Just a short distance from McCormick but up towards what is now Camden Yards was the National Brewery. All along that section of Light St. were a plethora of businesses. On the east side (harbor side) were decrepit, abandoned and rotting warehouses and piers. The scene below is a shot of that area (looking South towards the Cross Street Market).



The photograph to the left was probably taken sometime in the early 1900's. I'd guess before 1920, from the looks of the cars parked in the center.

By the time I started roaming the area, most of the buildings shown along the water front had long been demolished and a long row of dilapidated warehouses had taken their place.

Across from where I sold newspapers was the May Company. Along both sides of the market were shoe repair shops, jewelry stores, clothiers, shoe stores, pharmacies and a couple of banks.

Going south on Light Street the old *South Baltimore General Hospital*, a movie theatre, hardware stores, five and dimes and restaurants were familiar landmarks. It was a great little shopping area and made an excellent place to peddle newspapers.

Remember that I said I could buy a hot dog for a dime? Well, if I could



have gone across the street to the May Company and visited their *Courtyard* restaurant (See photograph to the right), a hot dog might have cost me fifteen cents. A bowl of soup would have been a quarter. But even the Courtyard was not outside the means of my meager earnings. Of course, they'd never have let me in. I was too scruffy and not accompanied by an adult! Straight scoop!

So, I spent my money where it was appreciated—with the Cross Street Market vendors. At the lunch counters and candy counters of Murphy's and Newberrys; and at the movie theatres.

I've got to tell you that if you weren't a kid in the 50's, you really cannot appreciate how far a half a buck could take you!

On The Half Shell!

Earlier I mentioned that the principal of Annapolis Junior High School (where I was beginning the eighth grade for the second time) invited me to leave school and suggested that I not come back without at least one of my parents.



In fact, he was rather emphatic about his preference that I not come back at all but I guess, even back then, there were certain rules that had to be followed when dealing with kids that didn't quite fit comfortably within the *Bell Curve* of *normal* behavior.

It took my mother several weeks to find out that I was not going to school every morning when I left the house. She only found out then because the school had to report me as a chronic truant and when a real, honest-to-goodness *truant officer* came knocking on our door — the fun-filled days wondering the streets and docks of Annapolis were ended: at least temporarily.

After several conferences, it was decided that since I was only about two months from my fifteenth birthday, I should say goodbye to those hallowed halls of learning and seek my fortune on the high seas!

My mother had found me a job on an oyster boat! And, the *high seas* were the waters of the Chesapeake Bay.

I'm not going to say that I came from a long line of watermen but my mother's maternal ancestors were *Evanses* and according to family lore, we could trace our roots back to close familial ties with the *Evans'* of Tangier Island and Smith Island. And, my mother's uncle, Ollie Evans drowned in the Chesapeake Bay when he fell off of a boat while crabbing.

At any rate, one cold morning in the late fall (Oyster season is from September to April), I found myself out of bed and peddling my bike to Annapolis and the docks



where the boat I would be working on was moored. It was still dark. In fact, it was only 4:45 when I got off my bike and climbed aboard the *Irene*. The *Irene* was what was known as a Deadrise. She was Bay built for oystering. She had a high rakish bow, low gunwales and a wide work area, amidships.

The *Irene* would have looked a lot like the deadrise picture above.

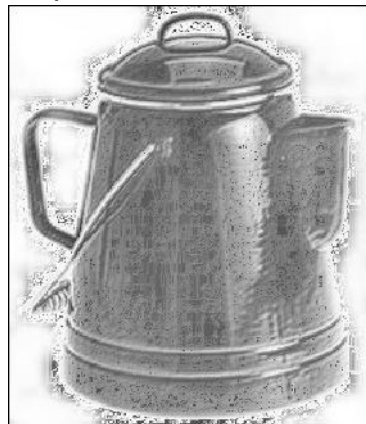
She was powered by an old six-cylinder Chevrolet engine and was probably several years from her last coat of paint. She was clean; but there was no mistaking the fact that this was a work boat — not a pleasure craft.

Roach Deale, the *Irene*'s captain and owner, was standing by the cabin door drinking coffee. If Roach had a proper Christian name, I never learned what it was. He was tall, thin and, from what I could see in the light spilling out of the cabin's hatchway, he had skin that looked like tanned leather and thinning grey hair combed straight back from his forehead.

Roach was dressed in a pair of khaki trousers, a starched white shirt, a black cardigan sweater and leather dress shoes (Reeboks hadn't been invented yet). On the coldest days on the Bay, Roach wore the same "uniform". His only concession to the cold was a pair of heavy, elbow length, rubber gloves that he wore while tonging for oysters. I was bundled up in layers of clothing and coveralls; while Roach looked like he was dressed for a stroll down Main Street on an early spring evening!

It was later in the day (after it had gotten daylight) that I got my first really good look at Roach. His skin looked like it was tanned from the same hide that his shoes were cut from. He had the deepest *crow's feet* around his eyes that I have ever seen on any man. Deep-set wrinkles that bore witness to a lifetime of staring into the sun, the wind and the waters of the Chesapeake Bay; looking for a catch or the end of a hard day.

I've seen similar wrinkles on the faces of

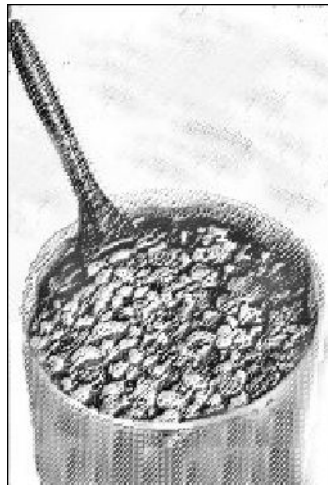


watermen from Florida to Texas' Gulf shore and from the mid-Atlantic to the New England fishing grounds. I've seen cowboys, Eskimos, shrimpers and trappers with deep crow's feet — but none were as deep as the ones Roach sported.

The first thing I actually remember about the boat was the smell of fresh coffee. Roach didn't *brew* coffee, he *boiled* coffee. And he boiled it in an old, grey and black speckled coffee pot with a wire bale and a wooden handle. That pot must have held two gallons of coffee. First thing in the morning, Roach would fill the pot with water, open his coffee tin and *pour* the ground coffee into the pot!

The coffee came out hot, black and strong! You had to pour the coffee very carefully to keep from "*stirrin' up the groun's*" and getting them in your cup. Even today, I'd be willing to swear in a court of competent jurisdiction that a spoon could stand up in a cup of Roach's coffee and never fall to either side! We drank it black with three or four heaping spoons full of sugar in it. "*It'll wake y' up, boy and give y' energy!*" I'll go along with that. We'd put enough sugar in that coffee to send a weak immune system into diabetic shock!

Sitting on the stove, next to the coffee pot was a pot of water, being heated. Already floating in the water was a "scoop" (Actually a full bag!) of Navy beans, a stick of butter and, at least, a quarter pound of bacon.



That was lunch. And, in the time I worked for Roach, the coffee and the soup never varied. Not once! But you know, there were no Mickey D's on the Bay and if you didn't bring it with you, or cook it, you didn't eat. And, I want to tell you that no matter how much you like oysters on the half-shell, it doesn't take long to get your fill of them!

Roach said the beans “...will stick with y’ boy!” He was right! We ate our “lunch” around 10:00 in the morning. Sitting in the cramped cabin of the boat with coffee, white bread, lots of butter and a bowl, brimming full with Navy bean soup, was something to look forward to on the cold, cold days of late fall, winter and early spring on the Chesapeake Bay.

The strong, black coffee and the heavy, fat saturated bean soup replaced a lot of energy we expended staying warm while “working the beds”. The bread, butter (Real butter, not “spreads”), bacon and salt: along with heavily sugared coffee would, today, be a dietician’s worst nightmare. Enough cholesterol to stop the engine of a Mack truck and enough sugar and caffeine to give new meaning to the phrase “*nervous energy*”!

But, that diet helped us cope with the rigors of staying warm on days when the ambient temperature was in the teens and the wind was blowing across the bay with a vengeance. Maybe our arteries *were* irreparably damaged. But, at the time, neither of us seemed to suffer unduly.

My job as a “*culler*” meant that I stood behind the cull board, which ran from side to side of the boat and “culled” the oysters that Roach brought up from whatever bed we were working. In the picture, to the right, you can see a pile of oysters on the “board” with a pair of tongs lying across the board. The board went from side-to-side (gun’le to gun’le) so the tonger could work either side of the boat, as his “feel” for the bed dictated. The chances are the oysterman in the photograph that is on the preceding page is working alone. He’ll bring up several tongs-full of oysters and after he has a bushel or so, on the board, he’ll come down into the well and begin culling.





The photograph, on the left shows two oystermen tonging over a bed near

Kent Island. The tongs were usually up to thirty foot long and looked like two rakes had been bent and put on the end of long sticks. When the tongs were lowered to the bed, the oysterman used a scissoring motion which caused the rakes to gather oysters. When he estimated his tongs were full, the oysterman pulled the catch up and dumped it on the cull board.



The cull board had a notch cut into its rail to “measure” the oysters. If the culler thought that an oyster was undersized, he tried to slip it into the notch. If it fit, it was thrown back overboard. If it too big for the notch, it became part of the day’s catch.

There was always a fair amount of “trash” in the catch and this too was pushed back over the side. The trash consisted of oyster shells, stones, water-logged wood and barnacle encrusted “stuff”. Of course the oysters were what we were after.

The oysters we “caught” would grace someone’s table as an appetizer, a stew, fried, fritters or Oyster Rockefeller! No matter how they were served, the oyster started its journey to a soup bowl or banquet



table when an oysterman pulled him out of the bed.



From a bed on the bottom of *“The Bay”* that oyster might travel to New York, Philadelphia or Boston. Or it might wind up in a stew at a local restaurant.

At any rate, we would “catch” six, or eight, or ten bushels of oysters a day. At the dock, Roach would sell his catch to a “buy boat”. It was buy boats like the one shown on the previous page, (Near Oxford, MD, about 1968) that would either meet the oysterman (tongers and “drudgers”) on the water or at the dock to buy their catch.

The boat to the left is a “typical” bay-built work boat and may have been used to fish, crab or oyster. Of the two smaller boats pulled up to the buy boat, the one closest to the buy boat is a dead rise. The smaller one is simply “a tong boat”. If you look just in front of the cabin of the buy boat, you can see a pile of oysters taking shape. In the photograph to the right, the buyer is bringing aboard his first bushel of the day.

Interestingly enough, the buy boats — during their off-season — often hauled watermelons and produce from the lower Chesapeake Bay region to the markets in Baltimore.

When I was working for Roach, oysters were selling to the buy boats for three bucks a bushel. Roach got a dollar, the *Irene* got a dollar and I got a dollar. On a decent day, Roach might “catch” ten, or more, bushel. He probably averaged around six, or seven. On the average, I was making twenty-to-twenty-five dollars a week. Not bad for a “drop-out” in the mid-fifties. Particularly, when the average guy pumping gas was making about fifty-cents an hour, or less!

Although the pay was pretty good for me, the hours were long, the weather was wretched and the work was cold. I decided that I need to forsake the life of a waterman and find a promising career on the beach!



Subsequently, I went to work as the helper on an oil delivery truck for the princely sum of \$4.00 a day and worked five-and-a-half days a week! My job was to pull the hose from the truck to the tank and wind it up again after the tank had been filled. The benefits were nil. I didn't even get strong, black coffee and bean soup! I did get dirty, and cold and tired. At \$22.00 a week, there was no overtime although ten and eleven hours a day were not uncommon when the weather was bad! I was beginning to get the idea that working for a living had some serious drawbacks to it. And, that the “oil bidness” wasn't any better then the oyster business — at least for the grunts on the wrong end of the supply chain.

As a result, at sixteen, I decided to go explore the world and see what I could do to make my working life more beneficial to *me*.



I picked peaches in Georgia. I washed dishes in Orlando. I picked tomatoes in Florida and I picked

apples in Pennsylvania. Finally, I wound up in Hagerstown, MD working in the pressroom for the church I mentioned earlier and then moved back to Annapolis where I was devastated to find out that I was not going to be the next ace reporter for the *Evening Capitol*!

With few other prospects, I took the job selling cars (Remember Cecil, the guy I met in the coffee shop?). That job led me to a job selling appliances for Sears which in turn led me to a job selling commercial cleaning equipment for a company called *American-Lincoln*.

And that job, folks, led me into the commercial cleaning business and the beginnings of my suddenly getting stuff published on a regular basis!

Remember me telling you that after I had been in the commercial cleaning business for a while I was writing a weekly newspaper column titled: "*Cleanin' Up!*"?



So what gives a guy like me the idea they could write—and get published—when his education (or lack thereof), at least one newspaper editor and dozens of well-meaning critics (Okay, so maybe all of them weren't well-meaning!) said otherwise?

Read on ...

"Damn t he Torpedoes! Full Speed Ahead!"

When *Admiral David Farragut* engaged the *Confederate Navy* in the *Battle of Mobile Bay*, he had

numerical, and materiel (if not *tactical*) superiority. The Confederates had two forts—*Fort Morgan* and *Fort Gaines*, three gunboats and one iron-clad *monitor-type vessel* and a vast mine field (Which they called “*torpedoes*” back then) guarding the approaches to Mobile Bay.

The torpedoes were what the *Confederate Admiral Franklin Buchanan* (Who’s flagship was the iron-clad *CSS Virginia*) was depending on—along with the forts— to keep the Union Navy out of Mobile Bay.

Farragut’s challenge was to get his eighteen vessels into Mobile Bay. The “torpedoes” left only a very narrow channel that the ships could sail through. Farragut’s first major loss was the *USS Tecumseh* which struck a mine and sank within three minutes; taking 94 crew with her.

Farragut knew he had to get through the mine-field, or retreat back out to sea. He decided to run the mine field and issued his famous order: “***Damn the***



torpedoes! Full speed ahead!” His flagship, the *USS Hartford*, led the remainder of his fleet through the minefield and captured all *four* of the Confederate ships defending the bay.

It took another three weeks before *Fort Morgan* and *Fort Gaines* fell to a combined naval and infantry attack. The Illustration above and to the right is a copy of a *Currier and Ives* print depicting the battle.

So what does the *Battle of Mobile Bay* have to do with becoming a writer, a locksmith or a general pain in the pitooey for that matter?

Well, nothing really: until you factor in *Dorothy Patricia Doerr*.

Pat was my mother's youngest sister.

Pat was only four years older than me and we spent a fair amount of time together as young children. And, times being what they were, she drew the job of babysitter (watching me) more frequently than she may have wanted to. I guess in a lot of ways, she and I were more like siblings than an aunt and a nephew.

Pat is also the person that is solely responsible for teaching me to love books and reading. I don't remember her reading to me. I don't remember her buying me any *children's books*, or helping me work out the intricacies of phonetics.

What I *do* remember is this: when I was invited to leave school; Pat came to visit (by that time she was working and living on her own in Baltimore). She, unlike my mother and step-father, did not criticize me for getting my tail in a crack and ending my *formal* education.

Instead, she brought me some comic books to read!

The next time she came to visit—she brought me some more comic books to read. Then it was a *Reader's Digest*! The next thing I knew, I was reading *Moby Dick*, *Tom Sawyer*, *The Call of the Wild*, and *Riders of The Purple Sage*. I even read *The Red Badge of Courage*.

Pat, that sneaky, and very wise young lady, got me hooked on books! She, without any recriminations about me leaving school, instilled in me a love of reading! It didn't happen overnight. But I gradually began reading more, and more, and more!

So, although Pat was many things to many people (friend, wife, mother, and counselor): to me she was the pilot who charted a course through a mine field that might have otherwise blown me out of the water. Books and reading became my defense against boredom and ignorance. Books opened up a vast new world of possibilities to me.

I guess Pat's greatest legacy to me was to show me how to acquire knowledge through information. Even today, I read (recreationally) twenty, or thirty *novels* a year. And, because of Pat's influence—I ultimately became a writer.

Reading helped me develop a lot of my ideas about life, doing business, getting along with people, religion and philosophy; because reading gave me ideas and helped me formulate the battle plans that are necessary to daily living.

That is: reading and, as a result, the information I assimilated and the knowledge that I gained—came together to help me develop the skills I needed to live, work and write.

So, thanks to Pat, reading gave me the knowledge to help me decide when to *retreat out to sea*, or say:

“Damn the torpedoes! Full speed ahead!”

Cleanin' up!

Doin' it on concrete

By R. L. "JAKE"
JAKUBOWSKI

Although concrete walks, drives, patios, and pool decks require very little from you, the homeowner, in the form of "maintenance," they can present some interesting problems from a cleaning standpoint. Because concrete is a porous material, it is subject to staining by everything from grease to gumdrops. Getting those stains out (maybe) and preventing (hopefully) their reoccurrence is where it gets interesting.

The only way to limit the reoccurrence of stains on the concrete around your home is to "seal" the pores of the concrete so that the grease, gumdrops, and last night's pool-party guests don't leave an indelible memento for you to look at everyday. But, before you can seal your concrete drive, etc., you need to clean it. Otherwise, the results will be less than solid.

Now, for the interesting part. Mention cleaning concrete to a majority of folks, and the first thing they recommend is muriatic acid (Hydrochloric). It's fast and cleans well (except on oil, grease, gumdrops, and other goop), and makes pretty greenish bubbles while it is effervescing. It also etches (roughens) the surface of the concrete, and chronic use will wear away the top of the slab and the large aggregate



(stone). Not only is this unattractive, it can result in some costly repair bills that will really rock you.

The best way to approach the cleaning of your concrete is — gently. Usually, conventional household detergents that are in your cupboard can be effective at removing grease, oil, and soil accumulations. Two cups of laundry detergent in a bucket of water, a broom or deck brush, and some elbow grease can do wonders. It is best to pre-wet the area with your garden hose and then rinse it thoroughly after scrubbing.

Rust stains in concrete can be removed (depending on their severity) with Oxalic Acid, which can be obtained in most hardware stores, and it is not as aggressive as muriatic.

Mildew can be attacked with household bleach (a one-to-one mix with water) applied with either a sprinkling can or a garden sprayer and left to set for a day or two before rinsing.

Once cleaned, your drive, etc. is ready to be sealed. The easiest sealers to work with are the water-emulsion types. The easiest sealers to work with are the water-emulsion types. The longest lasting are the solvent-based types. Check with a local janitorial supply house, or paint-hardware store in your area for their recommendations. Once you have determined the type sealer you are going to use, FOLLOW THE LABEL DIRECTIONS TO THE LETTER! Some sealers require that the concrete be etched with muriatic (usually 20 percent, or 5 to 1 ratio) before applying the seal. If it is necessary to etch your concrete, observe the cautionary procedures necessary when using an acid.

Although sealers will help prevent staining, they do fill the pores of the concrete, and can make it slippery when wet. This is another reason for etching (lightly) the concrete before sealing. Once sealed, drives, walks, decks, and patios are much simpler to keep clean, and free of stains.

Lehigh Acres

Photographic Soc.

Cleanin' Up!

"Cleaning Up!" was the title of the first newspaper column that I ever wrote.

Cleanin' up!

DOIN' IT TO
YOUR CARPET

By R. L. "JAKE"
JAKUBOWSKI

Frequently, people ask me how often they should clean their carpets. Since each carpet installation is subject to different soil conditions, the only answer is "When it gets dirty". That may sound ambiguous, but it really isn't. The trick is recognizing when your carpet is dirty, and needs thorough cleaning.

Generally, remedial cleaning is in order when soil begins to show on the carpet, and is not removed by vacuuming. It needs cleaning when you can separate the pile and see soil embedded at the base of the fibres. Or, when your neighbor comes in, sniffs (like on the T.V. commercials), the carpet and leaves--then you know the carpet needs cleaning.

When your carpet needs cleaning, you may decide to do it yourself. Economically, doing it yourself can be your best approach even though it might raise the devil with your sacroiliac. If you decide to do it yourself, "steam" cleaning (actually hot-water extraction) is



usually the most efficient method. The "steam" process incorporates a vacuum which removes the soiled solution as it cleans. However, this process can easily cause over-wetting if you're not careful.

When you rent a machine to do the cleaning with, be sure to get instructions in its use. Also, thoroughly vacuum the carpet before you clean it to remove as much grit, and debris, as possible. After cleaning, put small square of plastic, or PLAIN white paper, under all your furniture legs to prevent staining.

To lessen the need for complete remedial cleaning, vacuum your carpet

thoroughly, and frequently. Use a vacuum with a revolving brush, or a beater bar attachment. Keeping surface litter picked up, and spot cleaning also helps. The more you vacuum, pick-up, and spot--the less you will have to clean. If you have shag carpeting, regular raking with a "shag" rake will help your shag stay fluffier, longer.

If your back is not what it used to be, and you're not as ambitious as you once were, then you should have a cleaning service do the cleaning for you. When, and if, you hire a service to clean your carpets, don't be misled by low-price, or claims about how powerful their super-duper cleaning machine is. No matter how sophisticated and powerful the machinery, it is only as good as the operator. So, check references, and make the cleaner prove they know how to care for your carpets.

Properly cared for, and regularly cleaned will not only keep your carpets fresh and bright looking, it will also extend their useful life. So, do it to your carpets as if their life depended on it...

It was 1980 before I was able to "crack" my first trade magazine. By that time I had graduated to the industrial coatings business and wrote the following article for *Citrus Industry Magazine* ...

POLYURETHANES: FOR FLOOR COVERINGS

By R. L. "Jake" Jakubowski

P. O. Box 788
Fort Myers, Florida 33905

Replacing, or resurfacing, concrete that has been degraded by the effects of citric acid, or spillage and soil conditions that have a citric acid content, is an expensive project with extremely negative effects on the profitability of any citrus processing operation. Citric acid can literally put holes in your profit picture by destroying the concrete floors in your plant.

Not only does the concrete degeneration caused by citric acid require expensive remedial action, it also presents serious safety hazards and causes damage to rolling stock within the plant. Also, cracked and broken concrete become breeding places for bacteria which create possible health hazards.

The negative cost factors associated with these problems are self-evident. The question is, "Is there an effective solution to the problem?" The answer is an unqualified "Yes." If citric acid and acidic soil concentrations are making pulp out of your floors—the polyurethane coatings are your answer to a safety-oriented, cost-effective floor protection program.

Why should you choose a polyurethane coating for your plant floors in the first place? Because the oil-free, moisture curing urethanes are the toughest, longest wearing, concrete or wood coatings that science has yet developed—and, citric acid does not affect them.*

Polyurethane coatings that cure through a chemical reaction such as the moisture-curing urethanes (they cure through a

reaction of the isocyanates they contain, and the moisture content in the air), are highly sophisticated products that deliver a tough, durable finish that is unaffected by most solvents, acids and chemicals.

Dimensional "memory" makes urethanes good working coating.

Polyurethane coatings resist heavy blows, steel-wheeled traffic and show superlative abrasion resistance. Properly applied, these coatings exhibit unparalleled mark and mar resistance; and give any floor or surface an attractive deep gloss, that remains even after months of heavy traffic conditions.

Because a polyurethane coating is a continuous film, the coating is relatively impervious to dirt adhesion. Spills tend to wipe off easily and normal dirt and grit cannot readily stick to the coated surface. This beneficial aspect of a urethane coating makes maintenance easier and less costly. Further, urethane coatings have a built-in flexibility and toughness that allows them to give and then spring back under heavy loads. This dimensional "memory" makes urethanes an ideal working coating on any surface that is subject to heavy, abusive traffic conditions.

It is this same film stability and strength that allows a polyurethane coating to outwear even epoxies by several times. The average life of a properly applied urethane film from three to five mils thick, in an industrial appli-

cation, is about three years. With normal floor maintenance, and depending on traffic conditions, that same film has been known to last five or more years.

Although flexibility, strength, impact resistance and high gloss retention are well recognized characteristics of a polyurethane coating, one of its more remarkable features is its abrasion resistance. Tests conducted using a Taber Abraser Wheel showed that a moisture-curing polyurethane coating has more abrasion resistance than epoxy-ester enamels, spar varnishes, vinyl enamels, nitrocellulose lacquers, polyamide epoxy enamels, two-part polyester urethanes and urethane oil varnishes, by a wide margin.

Specialized applications of urethanes can be accomplished on steel, aluminum and even plastic surfaces. Sophisticated, light-fast (non-photochemically reactive), pigmented or clear polyurethanes are available for exterior and interior applications and exhibit the same tenacious nature they display on concrete, wood or wood block floors.

The cost of a moisture-curing polyurethane coating for a specific application is variable, depending on site preparation requirements, number of coats and whether a pigmented or clear coating is chosen. The cost also is influenced by factors such as work schedules and whether the coating is applied "in-house" or by a qualified coatings specialist.

Because polyurethanes are highly complex products, site

preparation and application procedures border on the critical. For this reason alone, "in-house" application of a polyurethane coating should be avoided, unless qualified technical assistance is available to your personnel. In view of the complexities of these products and their application requirements, a "turn-key" approach by a competent specialty contractor may be your most viable course of action. In addition to having the experience, trained personnel and equipment available, a contractor can generally offer specific guarantees as to workmanship and materials to protect your investment.

AUTHOR'S NOTE: For specific information regarding polyurethane coatings and application, contact:

Brulin & Co., Inc.
P. O. Box 270-B
Indianapolis, Ind. 46206

*Tests conducted with steel panels coated with a moisture cured polyurethane, and immersed for thirty days in a 10 per cent citric acid solution, showed no adverse effects to the coating.

Reprinted from December, 1980 issue of Citrus Industry Magazine.

For the next decade, or so, I contented myself with a few Op-ed pieces, a poem here and there and some copywriting for advertising (for one or another of the companies that I owned.)

It was not until 1992 that I began regularly writing a column for two local newspapers and *The National Locksmith Magazine*.

In 2001, I finished, and TNL published, my first book:

“The Fifteen Minute Safe Opening Technique!”

The National Locksmith

I wrote my first article(s) for *The National Locksmith* in 1992. This year (2009) marks my seventeenth anniversary as a part of the TNL crew. In 1994, I edited my first *Technitip* column.

In '92 I had been 'smithing for about five years and decided that since I had written other material prior to becoming a locksmith that I might have a shot at getting published as a locksmith writing locksmith articles.

I think I was right as I've written somewhat more than *three hundred* articles for TNL to date. The thing that I find remarkable about that estimate is that ***Marc Goldberg, Tom Seroogy and Greg Mango*** all found something meritorious enough to publish them. And, TNL readers accepted and, for the most part, I hope—enjoyed them.

On the positive side, for my readers, I was writing about jobs that I did, and products that I used *as a locksmith*. I think that gave me an identifiable credibility with my readers that may otherwise have been difficult for a writer—regardless of their subject matter—to earn.

While writing those articles, I tried to keep several things in mind. I did not want to bore my readers to death but I did want to help them learn what I had learned. Of course,

all of my articles were really nothing more than my opinion regarding a particular piece of hardware, or how to sell refrigerators to Eskimos! Well actually how to sell my services and products to my customers and potential customers which may be considered about on par with selling refrigerators to Eskimos.

Anyway, I was always a “*hands-on*” sort of writer, and was unabashed when it came to offering my opinions and feelings on products, procedures and the profits that could be made by locksmiths—if they were only willing to stretch a little...

As I mentioned earlier; some of what I wrote was a little bit funny, some was dead serious and some was speculative. But—it was *all* Pure Jake!

I also wrote with the idea in mind that everything I wrote about could help other locksmiths make money. I thought if I might have found a product or an unusual way of selling or installing that product, maybe another ‘smith could do the same—if they weren’t doing it already.

The following are a few of the *regular* articles that I wrote for TNL over the years. I hope you enjoy them as much today, as I did writing them. You never know but that you might just find a gem of an idea in one of these articles that will allow you to pick up some extra shekels.

The Technitips Column

February, 2009 marked my fifteenth anniversary as the Technical Editor of the National Locksmith magazine which meant that I had compiled and edited well over 150 Technitip columns!

Actually, the number may have been over two hundred since there were several years where we were publishing sixteen tips a month!

Anyway, I had been writing for the magazine, as a contributing writer when Bob Sieveking decided to step down after nine years and devote more time to personal matters. Tom Seroogy (who was the managing editor at the time) called me and asked me if I'd be willing to take on the job.

I told Tom that I would take it only with the understanding that if I felt it was too big a project, I could walk away after two or three months with no hard feelings. Tom agreed.

And, here I am, in my fifteenth year editing Technitips!

Over the years, I have found out just how creative locksmith really can be. Sometimes, I've been absolutely overawed at the solutions 'smiths come up with to solve a problem in the field. Or, develop a new tool. Or, find a short cut or correct a flaw in a piece of hardware.

I've had locksmiths send me samples of the tools they've developed and I've sent them on to companies like HPC and A-1 Security Manufacturing. Today, some of those 'smiths are enjoying a continuing return on their idea because one of the manufacturer's picked up on the tool and helped bring it to market.

And, I've found out just how generous the manufacturer's and distributors can be when it comes to supporting my column with prize contributions and information.

But yet; the Technitip column would not be what it is today if it weren't for the locksmiths who sent in their tips, tricks and ideas.

I truly believe that everyone benefits from the Technitip column. My readers benefit from finding information that they might not ever have found elsewhere. The manufacturer's benefit because their prize contributions help locksmiths recognize the value of the tools and products they offer on a monthly and yearly basis.

The tipsters benefit because they not only get a prize for the month that their tip was published but they qualify to have their names drawn in our year-end prize drawing.

And here is where I want to set the record straight. After fourteen, full, years of editing this column. Through the good months and the bad— I believe that I am the biggest beneficiary of all!

No foolin'! I know that much of what I have learned from the Technitip column has helped me — as a locksmith and as a writer — to more fully appreciate what a great bunch of guys and gals are involved in this industry. Not to mention the fact that I've learned shortcuts and ways to make my days easier.

So, like the ol' tent preacher used to say:

"Keep them cards and letters comin' folks!"

On the next few pages you will find some of my introductions to a few of the columns. Material that will further help you to understand who I am and why I write what I write and the way I write it.

After the introductions, you will find several pages of tips. These were tips that were used as “promo” pieces when they were mailed with the magazine. Usually, they had an “offer” attached.

Anyway, read and enjoy... and “I’ll see y’all next month!”

— Jake Jakubowski

JAKE'S JABBER (March, 2003)

One of my gifts this past Christmas was a new HP Scanner. The danged thing can scan photographic negatives and produce a “positive” in the photo editing program that came with the scanner! It can also do the same thing with “slides”, although I haven’t tried that yet.

The point is this: Personal Computer technology is surging ahead so quickly that some newer, faster, better, prettier, cheaper device we buy today is quickly obsolesced, by something even newer, faster, better, prettier...and often cheaper than the latest gizmo we just purchased.

The exciting corollary to that is this: I figure that we ain’t seen nothin’, yet! I mean the best is yet to come. PC technology has made enormous strides in the last five years. But in the scheme of things, those “strides” are, the way I see it, nothing more than a few tottering baby steps of an infant industry that is just beginning to learn how to walk!

Shoot, look at the leaps that have been made with digital cameras. From a virtual “interesting” concept just a few years ago to cameras that are fast attracting some of the World’s foremost photographers. Programs that just ten years ago required either a genius who’d been around computers for the last twenty years to install, or a whiz-kid that just graduated from the sixth grade! Today, virtually anyone can add or remove programs from their computer (I’m talking intentionally here {:O]). See, emoticons—the smiley faces and frowns and other indicators of mood and meaning on the Internet and chat rooms — are creeping into the mainstream!

So, what am I rambling on about?

This:

Locksmithing is undergoing rapid and revolutionary changes, too. Maybe not as quickly as computers are changing — but changes nonetheless. In automotive ignition and lock work we’re into our umpteenth generation of “smart” locks. About 1938 Henry Ford introduced an ignition switch on the column of his cars. There were actually two switches. The toggle switch could be used to “start” the car (if you were strong enough to push down the starter pedal on the floorboard) and the keyed switch locked the steering column. So, even if the thief started the car, they couldn’t drive it unless the steering column was unlocked.

It was over forty years before GM introduced, what I consider to be the next “big” step in automotive security—the VATS concept. Since then, we’ve had MATS, PATS, and NGS and SSD, and all sorts of newer automotive security developments. But, again, it’s only the beginning. I guarantee you that next year and the year after, and the year after that; even more sophisticated locks will make their advent in the automotive arena.

In “regular” locksmithing, electro-mechanical, electro-magnetic, bio-metric and *prox* locks have made their debut. As in the computer and automotive industries, these new systems are rapidly changing for the better. And they’re quickly usurping mechanical locks as the locks of choice among the residential, institutional, commercial and industrial user.

All of these changes present each of us with unique challenges and opportunities. They challenge us to grow and learn new techniques, procedures and concepts. They give us opportunities (if we’re willing to stretch just a little) to make more money with higher profit items than most locksmiths are used to dealing with.

Today we, as locksmiths, are faced with a truly awesome challenge brought on by the rapidly increasing evolution of “technology”. That challenge is to “Grow, or get out!” Harsh words? Not really. Because if WE do not take the responsibility of meeting new challenges and adopting new ways of doing “bidness” we ain’t gonna have any “bidness” to do...

See, y’all next month.

JAKE'S JABBER (June 2003)

War, pestilence and Mother Nature aside, Life hands out some pretty harsh lessons on occasion. Sometimes those lessons come in the form of a catastrophic illness and sometimes they come in the guise of quiet, relaxing ride in the country that culminates in a deadly, or cataclysmic accident. In other words, whatever Fate, God or Life has in store for us; it’s going to be delivered (as Murphy said) at the most inopportune time.

Our reaction to severely adverse happenings in our lives often reveals hidden character traits that might flatter or demean the person who suffered the detrimental effects of such an event. Some folks lie down and give up — others, despite the magnitude of the happening, get up and get on with their life. You can't help but admire the folks that seem to take adversity in stride and try to turn their misfortune around and benefit from the experience.

They're doers and not takers. Those folks deserve a lot of credit. And there are thousands, upon thousands of them throughout this country and around the world who refuse to knuckle under to the fickleness of fate and the difficulty they have to deal with. They're the fighters of this world. They're the folks that won't accept a bad deal without rebelling against that deal in a positive manner.

I know of a locksmith like that. And, he'd probably shoot me if he knew I was writing this in my column. Especially, when we're just into the beginning of a war with Iraq and no idea of when that war might end, or how many casualties we might suffer. And, I'm sure by the time this is printed in June, Dave will be even more embarrassed by this message in light of the negative aspects of that war.

He'll probably think his problems are miniscule compared to many.

In the broader sense, he might be right. What makes this important, to me — and to the rest of us is this: Dave is a locksmith. In spite of a stroke and loosing the use of his right arm and leg, Dave is *still* locksmithing! That takes fortitude.

Not only that, but he has invented a tool that will help him do some of the many tasks that locksmiths are called upon to do. Read his tip and then, join with me in saying:

"Way to go, Dave!"

Better yet, if you think you'd like to own one of Dave's tools (although you can make it yourself by the information he gives in his tip), call him at 414-975-0580 or, you can mail him a check or money order for \$20.00 and he'll send you the set. I've included his address under his tip.

On another note:

I just recently finished using and documenting Lockmaster's new *EasyEntire* key blank duplicator. I took bunches and bunches of photographs and will be writing an article about it which should appear in the magazine very soon. I'm sure Lockmasters will have the *EasyEntire* in Las Vegas.

But let me just tell you what I think about this machine: WOW!

You can duplicate the majority of the key blanks that come your way with little or no trouble. What really makes this machine special is the fact that it can duplicate (front and back) most parentcentric and cylinder blanks that you will come across.

I duped restricted blanks, Lockwood blanks, Sargent blanks, I/C Core blanks and even a couple of the old Medeco Commercial key blanks! So what this machine can do for the shop that requires it is it can actually duplicate the hard-to-find, one-of-a-kind, no-longer-made key blanks that come in your front door. And it does it quickly, simply and accurately.

It does not duplicate the cuts on a blank. I only duplicate the blank itself. You have to then finish the key on your regular duplicator.

See y'all next month! Hope we can run across each other at ALOA.

JAKE'S JABBER (August 2004)

Shortly before I started this month's column (back in early June) gas prices were running up the scale like a thermometer during a heat wave. Regular, in my area hit almost \$2.00 a gallon and we were bracing for even heavier increases as the summer wore on, when suddenly prices moderated somewhat.

I don't know where the price of a gallon of regular gas will stand by the time this issue of *The National Locksmith* makes it to your mailbox but one thing I do know is that we have to be prepared for the unexpected. The following is a short excerpt from an article I wrote back in June and published on the Internet.

*"It does not matter if the oil barons are gouging us. It does not matter if the retailers are hammering us for a few more cents profit. It does not matter if OPEC is squeezing us until we squeal! The only thing that matters is **how are we going to handle the increased costs of doing business** that higher fuel prices will dictate?"*

*In other words: what matters a great deal, is how **we react** to the pricing pressures that are in play in the marketplace right now. In fact, our fiscal survival might very well depend on how we decide to respond not only to the increase in fuel prices, but the resulting increased costs of everything from burgers to beach balls and locks to our favorite libation.*

Why? Because virtually everything we buy, lease, rent, require or need will, over the next days, weeks and months; be affected by an increase in cost, because of higher fuel prices. Those market-wide increases will be the

result of businesses, manufacturers, distributors, doctors, lawyers, hospitals and veterinarians reacting to increased fuel costs by raising their rates accordingly.

Other folks that I've been talking to over the last couple of weeks are manufacturers and distributors. Last year, those businesses sat down and put together their budgets for this year and printed their catalogs and price lists. Probably not a one of them had any way of anticipating what was going to happen to gas prices and were caught short. So, they're going to start passing on "surcharges". That is, the manufacturers are going to pass a five, seven or ten percent surcharge to their customers (the distributors) and the distributors are going to pass those surcharges on to us (remember, they're paying more, they need to recoup that expense). And, I'll flat guarantee you that when they pass the surcharge on to us; the distributors will add a wee bit more to it, to help maintain their profits margins! Which means, of course, that we will be paying more for deadbolts and doorknobs because it costs more to get them from their point of origin to the distributor to us — or the end user.'

The point being: When you are faced with an increased cost for fuel (or anything else for that matter) you are going to be faced with other cost increases because of that fuel cost increase. So, in order to stay viable and profitable in what may be some very unstable markets in the future — make sure you cover all of your bets, er, costs!

See y'all next month!

Jake's Jabber (November, 2003)

Along about the middle of this month I will, virtually by governmental decree, pass another milestone in my life. According to Uncle Sugar, I will officially be eligible for certain government benefits that I, at one time, considered to be reserved for "old folks".

I'm not sure at what point in my life and the Social Security Administration's record keeping, the mistake occurred but somewhere along the line, Uncle Sam and the Bureau of Vital Statistics got *way, way*, ahead of me.

Don't misunderstand me. I'm not grouching about the gray hairs that seem to have taken over my head like weeds growing in a garden! I'm not grumbling about pectoral muscles that no longer defy gravity. I'm not complaining about a stomach that refuses to stay where it belongs but wants to hang out somewhere in vicinity of...well, never mind! I refuse to fuss or remonstrate over "abs" that have forgotten the meaning of "definition". I am *not* griping about my grandfather staring back at me when I stand in front of the mirror and shave. I'm not even bemoaning the fact that I look somewhat less attractive in a bathing suit then I used to.

What's got my chain twisted is this:

At some point between the ages of twenty-nine and the *sixty-five* that the government *claims* I am; there was an extra decade, or so, slipped into my records that really doesn't belong there. No! Wait! I'm serious!

Hey! I realize that AARP has been sending me literature for a long time. I recognize the fact that those mail order insurance companies have been sending me "offers" for everything from "supplemental policies" to "final expense" deals. I am also aware that the mainstream insurance companies have stopped sending agents around to try to talk to me about *whole life* policies and annuities. But, for the most part, I figured the mail order stuff was simple indoctrination and they were just getting an early start in a very competitive market!

None of their promotional material really had any bearing on my actual age, right? But, wait! How do they

know how old I'm supposed to be unless Uncle Sam told them?

Then, I got to thinking about the possibility of a conspiracy. Yeah! An insidious plan whereby the government gets folks like me on a limited income, then the politicians give speeches at the local community center to get us to vote for them because they want to improve the quality of our life! That's got to be it. And, I've even found proof!

I dug out my birth certificate, blew the dust off, carefully unfolded the yellowing document; gently smoothed out the creases and right there in black and white (Well, okay, it's more like gray and yellow!) was the proof I needed:

"Born this, the 15th day of November, 1938". 1938!? That would make me — NO WAY! Absolutely, no way! The doctor who attended my birth was evidently in on the caper and derived some sort of monetary reward for purposely "goofing" up my birth certificate. Otherwise, why would he obviously, and with malicious intent, incorrectly enter the year of my birth?

Think about it. If it isn't a conspiracy, then how come I'm *suddenly* eligible for all this *senior citizen* stuff when I'm really only forty-four?

See ya'll next month...

Editorial Feature... Technitips

The Door Keeper

My service van has double rear doors that always seem to get blown shut while I'm standing back there trying to do something. Bungee cords are not a good option because they don't look professional and can be a hazard to myself or one of my customers if they suddenly let go.

To solve this problem, I welded two large nuts (one on each door) to the top rail of the doors. Then, I used a 6' piece of rod with a four inch bend in each end, making it look like an elongated "U" (see

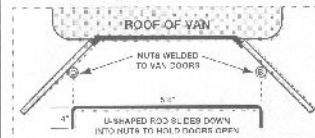


Illustration 1.

Illustration 1).

Now I just open the doors all the way, slip my custom made door holder into the nuts and can work at the rear of my van without worrying about the doors slamming into me.

I'm six foot tall and with this door holder on my full sized van, I can comfortably work in the area without hitting my head.

In addition, I have gotten some great comments from my customers about this door holder and don't hesitate to let them know that I can be just as creative in solving their security needs.

Vincent Chestnut
Moine

Latch Bolt Locator

Like many lock-smiths, I've tried to mark the location of the latch bolt in the frame when installing deadbolts in a number of different ways. Now, I know that everyone has their favorite little trick, but I wanted to do something that would guarantee me a 100% accurate mark each time I used it.

Finally, I hit on the idea of using 2" long by 1" in diameter piece of brass handle to make my strike locator (see Illustration 2). First, I drilled a 1/8" hole about 3/4" deep in one end of the wood.

Next, I rounded the wood as shown in the illustration and then gently hammered the nail into the hole. I cut off all but about 1/4" of the nail and sharpened it to a point.

To finish my tool, I drilled an 1/8" hole in the opposite end, forced a loop of string into the hole and secured it with a small plug and some glue.

Now, after I cut my crossbore and edgebore for my deadbolt (or knob set), I insert my strike locator in the edgebore (latch) hole, close the door firmly and

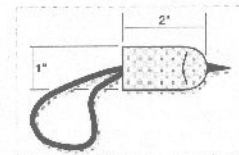


Illustration 2.

then push the strike locator against the jamb with my finger or a screwdriver handle. When I pull the locator back by the string and open the door, there is a perfectly centered mark for the strike hole to be drilled.

With firmer pressure on the end of my locator, I can even get a good mark in a metal jamb.

Sam Alexander, CRI, RST
Canada

[Editor's Note: Sam, thanks for a great tip. I've been carrying the same wooden locator in my tool box for over ten years now. Does it work as well as you say? Every bit and then some. I have tried a number of strike locators during my career as a locksmith and I'll take my old, plain wooden one with the frayed string on it every time.]

Adams Rite Replacement Screws

If you lose or strip the small screws that hold the face plate on the Adams Rite MS type locks, don't get frustrated. The chances are very good that a suitable replacement is right in your tool kit or truck.

You know those dandy little screws that are half wood screw and half machine screw and come with new locksets? Just cut off the wood screw end and leave about 5/32" of the machine screw end and it will work very well in the Adams Rite application.

I use a wire stripper (solderless terminal crimper screw cutter tools) to cut the ends off those screws when I need a replacement. It works great and saves time and frustration.

Steve Millhorn
California

If your truck stalls because the wires are wet from running though water, get out the WD-40, spray all the wires and your distributor. The WD-40 will displace the water, keep the wire from shorting out and allow you to restart your vehicle.

--Jake Jakubowski

Editorial Feature... Technitips

Easy VATS Ignition Repairs

Two of the most common problems with GM ignition locks is the spring retainer popping loose or the side bar retainers coming loose due to improper staking. In both cases the lock always seems to jam in either the "LOCKED" or the "RUN" position. Until VATS, all you had to do was replace the lock using a quick and easy procedure.

With VATS, however, you need to not only remove the ignition, but you also carefully pull wires up through the steering column. Then you can hopefully feed the new wires back down through the column. It is not an easy or enjoyable procedure.

I have a procedure for repairing these malfunctions on VATS locks that is easy, quick and allows you to effect the repair without having to replace the old ignition.

First, remove the lock from the steering column as you would any other GM ignition. Next, with the lock pulled out just enough to clear the column housing (be careful not to stretch or break any of the delicate VATS wiring) use a screwdriver to push back the metal sleeve that is just behind the black plastic ears of the ignition (see

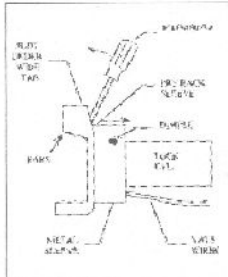


Illustration 1.

Illustration 1). This sleeve holds the ears on the lock housing.

To help facilitate removal of the sleeve, look underneath the wide finger tab and you will see a slot. Wedge a small bladed screwdriver in this slot and gently push the sleeve back. Now you can work the screwdriver completely around the lock until the sleeve slides out onto the lock housing and onto the wiring. You can now slide the sleeve all the way back to the column and leave it there until needed.

The ears of the ignition are held to the housing by two tabs (see Illustration 2). Gently pry on both of the tabs and

the Wire/Ear assembly will easily come off of the housing. Once this assembly is removed, you will see a clear plastic piece that holds the metal VATS contacts in place on the collar of the ignition (this may also be on the face of the lock cylinder). Remove the plastic piece from the lock face and snap it back on the collar to hold the contacts in place while you service the ignition. Now just allow the collar to hang free.

After correcting the retainer problem snap the collar back on the housing (the clear plastic piece on the collar has two alignment tabs to guide it back onto the face of the lock). Slide the metal sleeve

back into place (note the two dimples on the sleeve that align it on the collar), and reassemble the ignition and column.

This allows the customer to keep the same key, the wiring under the knee bolster is not disturbed and you can use this procedure to determine the cuts of the ignition key if there is not code available. Also, even if the lock is

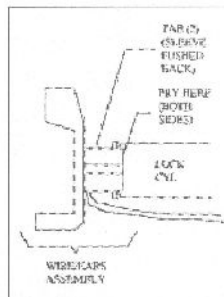


Illustration 2.

damaged beyond repair, you can remove the collar from a new lock and install the Wire/Ear assembly from the old lock on the new ignition. Just cut new VATS keys to fit the new lock since you already have the VATS value from the old key.

I have found this procedure to work well on all of the VATS ignitions that I have worked on so far.

Charles Chapple
Georgia

Whenever possible, I always "key" panic hardware with an I/C cylinder. That way, when I am called back to "rekey" the panic hardware, all I have to do is remove the old core and insert a newly keyed core.

Saves a lot of time and effort.

--Pete Gamble

Editorial Feature... Technitips

Flashlight to Withstand the Elements

I have come up with the ultimate opening light. I became tired of spending a lot of money replacing bulbs that have blown up upon becoming wet, bulbs that break when inserted in a door panel, or having the bulb burn out when I needed it most.

To make my ultimate opening light, you will need a 3/16 inch acrylic rod (which can be bought at any plastic supply store and many hobby shops), a 1 1/2" round by 2" long piece of wood and a Mini Mag flashlight.

The round wood stock is used to make the adapter. Bore a 1" hole in one end 3/4" of an inch deep, and a 3/16" hole all the way through from the other end so that the acrylic rod will butt up against the flashlight lens (see Illustration 1).

Cut the acrylic rod to any length that you feel comfortable with. I cut one piece 18" long for a straight light and the other



Illustration 1.

about 20" long with a two inch 90° bend on one end. You can bend the rod by heating with a heat gun.

After cutting, file all ends with a fine file. Then use a fine emery cloth and polish with something like SIMTECHROME and a piece of paper to remove all scratches from the acrylic rod.

Now insert the proper rod in the adapter and turn on the Mini Mag. You can adjust

the brightness of the light by adjusting the Mini Mag. Best of all, it won't break or be affected by the weather like so many lights can be.

Jay Mischo
Utah

[Editor's Note: Jay, you can also use a propane torch to melt the ends of the acrylic rod to a smooth scratch free surface. Simply pass the flame of the torch rapidly across the butt end of the rod several times until the rod clears.]

BMW Boot Opening

Attempting to open a 3 series BMW (up to the 1994 registrations) by going down in the door has been a fruitless pursuit because of the deadlocking system. Also, because of various shielding methods used by the manufacturer to protect the vulnerable linkages, it is very difficult if not impossible.

The method that I have found to be most successful is to remove the license plate and drill a hole between the linkage connecting the lock to the latch mechanism. Once you have drilled the hole you can then apply pressure to the trunk locking rod through the hole to release the latch. Once you have opened the boot (trunk), you can set about making a key. The boot has 8 of the 12 wafers necessary to generate an operating key for the vehicle. After you have obtained a working key for the boot, it is a fairly simple matter of impressing the remaining four cuts from the door lock.

I believe this method will also work on late BMW models, but bear in mind that many newer BMW models have transponder technology, so a key generated in this manner will open the boot, the door and turn the ignition, but not start the vehicle.

This method should also work well on the 5 series and 7 series even though these models are more easily opened by going down the door with a proper tool.

Gary Watts
England

Titan Lever Lock Cylinder Removal

Tom Taylor's Titan Plug Removal (July, 1997) works great on key-in-knob locks. Here's a way I have found to simplify the plug removal on a Titan key-in-lever set which Titan claims requires a TC Rekeying Tool.

First pick the lock to the left about 100° or until the plug will not turn any further. Now slip the end of a slim tension wrench, pick or other appropriate tool down through the center of the keyway until you feel the spring loaded tension on the tail piece. Push in on the tail piece and turn the plug further to the left at the same time. Now, the plug will rotate to the 180° position. In this position, you can use a hook pick to pull the plug right out of the lever.

Rekey the cylinder and test it for proper operation (without installing the retainer clip). Now, remove the key and the plug from the cylinder, take out the key, slide the plug back into the cylinder at about the 9 o'clock position, and replace the retainer clip. Rotate the plug to the left until it is 180° from the key removal position. Another 90°.

Now slide the cylinder back into the handle, slip the end of the slim tension wrench, etc. down through the center of the keyway and push in on the tail piece and turn the plug to the right at the same time. The plug will rotate to the key removal position and lock up. The job is complete.

Ray Halthwaite
Connecticut

On some of the earlier Volkswagen transponder ignitions, it was possible to "trick" the car into starting.

First, make a mechanically correct key. Next disconnect the battery (both cables) and allow to "stand" for about five minutes. Turn the key to the "ON" position, reconnect the battery cables and turn the key to "Start".

The transponder system does not read this as a "first" start but as "Engine Died" and allows the ignition to start the car.

--Bob Sieveking

Editorial Feature... Technitips

McGinn Safe Opening

I recently had to open two McGinn safes in which the single nosed safe deposit lock had caused a lockout. These locks have a "T" type extension that is attached to the lock bolt with a small screw and then goes through the lower door bolt when turned to the locked position.

On the first safe, the screw came out of the bolt on the bottom door causing me to have to drill the door. After the door is unlocked with the key, push back the locking bar with a small awl.

The second safe would not open because the extension had broken away from the lock bolt itself and could not be retracted with the key.

I drilled both doors 2" left, and slightly above (between nine and ten o'clock) the center of the nose piece. A quarter inch hole will usually get you what you want, but you might find that a slightly larger hole will make fishing the bolt back easier. The safe doors both drilled fairly easy, with no hard plate to contend with.

Al Root
Pennsylvania

Furniture Lock Picks

While trying to unlock antique furniture — desks and — cabinets with the old post and bit style locks, I have used everything from a collection of old keys, to a bent wire, to a special set of picks that I bought for the job. None of these methods gave me the results that I wanted, so I set out to make my own picks for these pesky locks.

The picks that I made were fashioned from brass tubing, brass rod, two axle gear collars, silver solder and propane torch. If you decide to make your own

set of bit and post picks, most of the materials that you will need are available in hobby shops and your own salvage bin.

The materials you will need are as follows: 3/32" and 1/8" solid brass rod, 1/8", 5/32" and 3/16" brass tubing, one 5/32" and one 3/16" axle gear collar, silver solder, propane torch and a Dremel Tool. These materials will make two picks that will accommodate various sized post sizes. *Illustration 1* shows you how to assemble these picks.

For the smaller pick use a 3 3/4" piece of 1/8" brass tubing which fits

inside a 2-3/4" piece of 5/32" tubing. On the larger post pick, a piece of 5/32" tubing is cut to slip inside a 3/16" tubing (same

lengths as the smaller pick). At this point, use a piece of solid rod to fill in all but 3/4" (from the bit end) of the smaller tube of each pick and then solder that rod in place. Make sure that all soldered joints or connections are ground, filed or sanded smooth so that the tubes are allowed to slide freely within the larger tube of each pick.

As you can see in the *illustration*, the solder that you brace with is shaped to serve as a bit when soldered to the tip of each pair of tubes. The bits need to be shaped and formed from solder. The bits are 1/16" wide and 3/16" tall. You will need to cut a small slot in the end of the tubes to accommodate the bits and then solder them into place. Then file to fit and make sure that the small tube fits completely into the larger one, turns

freely and the bits fit flush to each other.

Now slide the smaller tubes into the larger tubes and attach the appropriate gear axle collar to each of the smaller tubes (again, opposite the bits). Tighten the set screws supplied with each collar (the solid rod that you soldered inside these tubes earlier will keep the tube from collapsing).

To use the tool, insert the appropriate sized post pick in the lock and utilize the smaller tube to apply the pressure to retract the bolt and the larger tube to lift the levers (or on the simpler locks, lift the spring loaded block).

If your pick only partially retracts the bolt, use a stiff "L" shaped wire to finish the job. I have found these picks to be effective tools

for opening a wide variety of antique cabinet locks, etc. If you decide to make your own set, the majority of the time you spend fabricating them will be spent dressing the welds so they mesh flatly and work smoothly.

Leo Koulogianes
Tennessee

[Editor's Note: Leo sent me a pair of his post and bit picks. I used the larger pick to open an ornate with a simple lever lock on it about as fast as you could by using a key. I tried the smaller pick on an old jewelry box with the same results. Leo, thanks for taking the time to share this information. I think it's a great tip. I also want to say thanks for the bit and post picks that are now a part of my picking arsenal.]

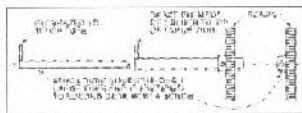


Illustration 1.

If you're going to drill a plug at the shear line, it helps to insert an uncut key in the key way before drilling. The uncut key raises the bottom (and masters, if any) and causes the pins to be sheared by the drill.

The key also helps "turn" the plug and unlock the lock after the shear line is drilled.

--Jake Jakubowski

Editorial Feature... Technitips

Pre-Prepped Impressioning Keys

I have found a way to make impressioning easier and less frustrating. When impressioning a key to open a pin tumbler lock, the marks left on the key blank indicate spacing and possible depth. I have found that by making a "space" key by cutting each space to its first depth on my code machine takes the guess work out of determining the spacing and lets me concentrate on determining the depth.

By using these pre-prepped "space" keys, I have cut the time it takes me to impression a key nearly in half. Consequently, I now carry a variety of the most popular key blanks with the spacing already marked and ready for impressioning.

Dave Nissen
Minnesota

Saab Jumping

I was called to retrieve the keys that were locked in the trunk of a 1996 Saab 900. To open the trunk, I used a short piece of wire and jumped from fuse 17 to fuse 4 (you can also jump to 7, 6, or 16).

While holding my jumper in place, I depressed the trunk lock button on the door and released the trunk lid.

The fuse box is located on the end of the dash console and can easily be seen when you open the door.

William Allgood
South Carolina

Deadbolt Holding Fixture

Here are simple instructions for making a "third-hand" for holding exterior door hardware in place while interior trim is applied. It consists of a modified bar clamp, with the fixed jaw

replaced by a homemade plastic fork or horseshoe.

Use a ten inch Quick-Grip or Craftsman Bar Clamp and remove the glass-filled, nylon OEM rear jaw, using a hammer, arbor press or saw to expose the stop-pin hole. Then modify the clamp sliding head by cutting off the upper portion (see Illustration A). You have to use an abrasive cut-off wheel in a rotary tool as these are made of hardened steel.

Next, fabricate the new open-back rear jaw from a piece of 1/4" x 4" x 6"

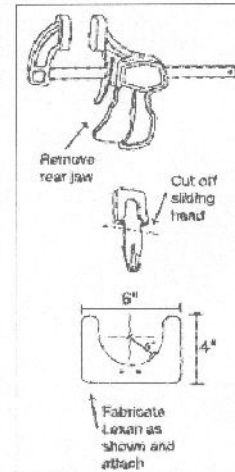


Illustration A.

Lexan polycarbonate as shown in the illustration and attach it to the modified sliding head with two flat head machine screws and nuts.

This unique tool can now be used to hold deadbolt exteriors, rim cylinders or other items in place while the inside cylinder, thumb-turn or other trim is attached.

Peter P. Shiffert
New York

Master Cylinder Vent Tool

I found that a ball off a master cylinder from an older car makes a perfect tool to open front window vents. One end will work the drivers side, and the other end will work the passenger side.

Simply work it under the vent, like any other tool, and you can pull in the button and at the same time pull open the lock lever.

Marvin Golden,
Oklahoma

Fail Secure Exit Device

A company I do work for had a problem with employees leaving the employee entrance unlocked whenever they entered the building with their key. The door had a panic exit device on it with a Schlage T-turn mortise cylinder.

What I did to solve the problem is put a Sargent off-set cam on the back of the mortise cylinder. The off-set cam would allow the plug to turn far enough to unlock the trim, but not far enough to continue the unlocking motion to the point where the key could be removed.

Now, although the trim could be unlocked and the door opened, the key could not be removed from the mortise cylinder until the key was returned to the upright position. Now when the door is closed, it has to be locked.

Hector Cameron,
Nova Scotia

When installing a lock with tamper proof screws, first install the lock using "regular" screws.

Then check out the overall operation of the lock, make sure everything works properly, remove the "regular" screws and install the tamper proof screws.

If you use standard screws first and find out there is a problem with the lock, you can easily correct it, without having to try and remove the tamper proof screws.

--Jake Jakubowski

conversion chart for translating volt, ohm meter readings to VATS values.

Pellet Resistance	VATS Number
390	1
510	2
660	3
870	4
1,110	5
1,450	6
1,840	7
2,330	8
2,980	9
3,710	10
4,710	11
5,990	12
7,430	13
9,450	14
11,690	15

Illustration 103.

The Internet:

I think the Internet is a remarkable tool that locksmiths can use to improve their position in the market, learn about new products and procedures and freely exchange information with fellow locksmiths.

I also think the Internet can be the most abused service available to mankind, in general. And, over the years, I've seen folks (including locksmiths) post stuff in the anonymity of the Internet that they might never say to you fact-to-face.

Some of the following material will bear out both sides of the Internet coin, I think. And when you read some of my responses to some of the opinions expressed by other, it might further lead you to a better understanding of what makes me think the way I do. Or, why there's a need for Pure Jake!

Shortly after the government announced their TIP program for reporting suspected terrorists, a thread appeared on one of the locksmith forums that I was visiting at the time and the poster boasted that he had "turned in two illegals".

He apparently "suspected" these individuals of some plot to blow up sandcastles or something and had determined (at least in his own mind) that since they were here illegally, they were up to no good.

The following was originally written as a rebuttal to the poster's position and I later cleaned it up and submitted it to a newspaper for inclusion in their Op-ed section.

My Take on TIPS

I see TIPS as a new, extreme and insidious extension of the Neighborhood Watch program. Rather than report someone breaking into your neighbor's home or a thug mugging someone's grandmother on the street, Dubya, Inc. is asking the UPS driver, the cable installer, the plumber (Great shades of Watergate!) and interior decorator to do what law enforcement is Constitutionally forbidden to do...gather evidence illegally. I understand the United States Postal Service has declined to participate.

To compound the problem, the government is willing to turn loose a cadre of untrained, uninformed and, in some instances, possibly unstable individuals on their fellow-citizens to report "suspicious" activity.

That's really scary!

Hey, if anyone sees a drug deal going down or smells fuel oil and fertilizer fumes coming from the garage next door, they should report it. However, if the UPS driver delivers a package to a home and sees a copy of *Mien Kampf* (Adolph Hitler's Magnus Opus available at Border's, etc.) on the coffee table, that driver might surmise that the owner of the book is a "subversive" rather than, say, a scholar or student, and report them to the folks at Homeland Security.

That's scary, too.

If you were to look at a time-line of history, I think you would find that of the many societies, governments, groups and others that depended on the "*Fink Factor*" to maintain control, have all gone down in flames. Or, they have at least, faded into the mists of time and history.

In our own country, we've had our share of hysteria associated with any number of "events". From the less than stellar behavior of Cotton Mather and his cronies at the Salem Witch Trials, through McCarthyism and onto Dubya's dudes and dudettes encouraging citizens to watch other citizens and report any "suspicious" behavior on a toll-free *Rat Line*.

The paradox here is that we do have a duty to inform authorities of any behavior that might be detrimental to society at large. We do not need a civilian corps of domestic spies trying to prove something, or get even with their old employer or ex-significant other.

I am not a bleeding heart liberal or a conspiracy freak. I am an American who believes that our strength as a nation comes from the diversity of cultural influences that make up our patchwork society. Just like iron ore is mixed with various elements to produce the finest grade steels, so our homogenous blending of Oriental, European, Hispanic, Mid-Eastern, Caucasian, African—and whatever else was thrown in the "melting" pot— produces the fabric of American culture.

Being suspicious of someone because they speak differently, act differently, think differently or worship differently than we do is no less deviant than what made the Spanish Inquisition the historical horror that it became, or that made the Holocaust the blot on humanity's cloak that it is.

Or, for that matter, the twisted reasoning that caused many states to practice Eugenics (Forced castration and *tubal ligation*) to prevent "undesirables" from having children that might grow up to be a burden on the state or exhibit behavior outside accepted "norms". Oh, yes! It did happen. Virginia performed their last act of eugenics in 1974. North Carolina performed their last one sometime around 1973.

Interestingly enough, during the Second World War, the United States was *vociferously* condemning Hitler for doing the same thing to "purify" the Aryan race!

One other thing we should keep in mind regarding differences in cultural attitudes, mores and practices. Unless your ancestors were Ute's, Shoshone, Cherokee, Apache or another Native American tribe...they (your ancestors) were the terrorists of their time! How differently did our founding fathers dress, act, worship and think than the Chippewa, Iroquois or Seminole?

Of course, our forefathers did what they did (justified it at least) in the name of the *King, God, Greed* and a purported desire to save the souls of those poor savages. Along the way, our ancestors taught Native Americans about the joys of alcoholism tuberculosis and venereal disease. Do I see a parallel here to extremist Islamic leaders wanting to destroy the *Great Satan* after getting us hooked on oil?

Now we find Dubya, Inc. ready to set loose a cadre of hysterical, and possibly hypocritical, Mather/McCarthy clones that could make the folks at Salem look like they were playing Blind Man's Bluff!

I'm sure that many of the folks who decide to sign up with the TIPS program will be normal, everyday Americans looking for a way to serve their country in a time of turmoil. I'm also certain that there will be a lot of attention-deficit, James Bond wannabes, that will delight in their perceived, new-found power over folks less fortunate than they (Mexican migrants, for example) or, those who just happened to slight the spy-guy, or gal, in some oblique and obscure manner.

On the other hand, there may be a bright spot in all of this. It's a business opportunity for any of my readers that would like to participate:

I'm going to start a manufacturing company. Actually, it will be a clothing manufacturing company. It will be called: *"Brown Shirts, Inc."* As a sideline, we will manufacture Swastika armbands and shoulder patches. Or, should those be armbands, and patches, with Dubya's picture on them? That patch would be for the right shoulder. On the left shoulder we could have a patch showing Blind Justice bending over and retching.

Of course, all this is just another one of my many opinions. That's another great thing about America...we still (at least the last time I looked) had the right to express our views and beliefs.

"TIPS" might change that...

The Door Hardware Institute Magazine

The Door Hardware Institute is, in my opinion, the premier association when it comes to doors and door hardware. I have written articles for their magazine now for about three years and served on their editorial board for a year.

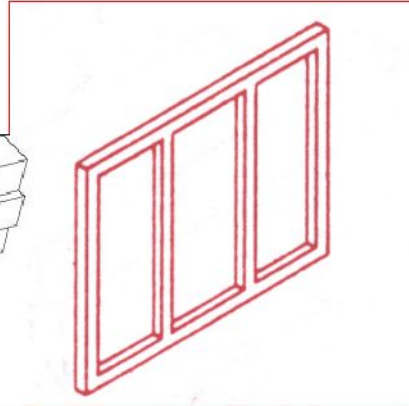
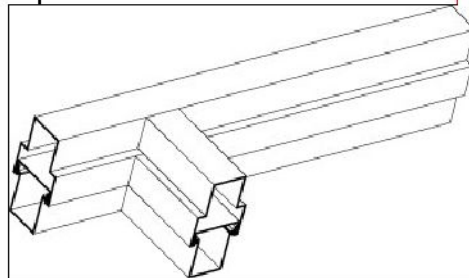
One of the pluses I like about DHI is that their fantastic educational literature is available to members and non-members alike! True the non-member may pay a slightly higher price for books, study guides and courses but DHI does not exclude anyone.

The following articles are a sampling of what I have written for DHI. In June of 2004, the magazine published the introduction to my book "Aluminum Stile Door Service and Repair" and in July, they published, as an article, an excerpt from my book: " Jake Jakubowski Presents: Basic Electronic Access Control".

Those Marvelous Mullions!

"Mullion: A fixed or removable post dividing an opening vertically."

The vertical center-piece of a wooden door that separates the decorative



wooden panels or the glass *on* a door is called a mullion (It is sometimes called a *mun-tin*.) the vertical piece or pieces between the hanging stiles on a window are also known as mullions (See Illustration to the right). And, finally, the vertical piece in the center of the doorframe containing a pair of doors is called a mullion. Generally, when discussing wood or metal doors and frames, mullions are associated with pairs of doors, rather than single doors

That's simple enough. But why have a fixed or removable post dividing an opening (in this case within a doorframe) vertically? Surprisingly, there are more reasons than you might think.

A fixed mullion (See Illustration to the left.) can either be built into the doorframe, as an integral component of the frame or, it can be bolted to the frame after the frame is installed. On exceptionally wide pairs of doors (As in two 3'0" or 4'0" doors.) the mullion may be used to help stabilize the header to keep it from sagging. Or, in the case of a pair of doors that have concealed or surface mounted exit hardware on them, the mullion may be used as a security measure to prevent someone from threading a wire through the opening between the doors and activating the crash bar or exit device.



on pairs of doors.

Fixed mullions are utilitarian in function, and by their very design are limited to the more practical aspects of that functionality. That is, structural support, security, and as is often the situation, they act as "traffic controllers" by being the divider between the "IN" and the "OUT" door

Removable mullions perform many of the same functions as a fixed mullion with the added benefit of the convenience of "take-down" capabilities in order to enlarge

the opening when necessary to accommodate furniture, equipment removal or replacement.

Some removable mullions are of the “bolt-in” variety where the bottom of the post sits in a “bracket” and the top of the mullion is “notched” to fit around another bracket on the header of the door frame and is bolted to the top bracket.

The more convenient removable mullions are key locking mullions (see the photograph on the preceding page and to the left). The newest style removable mullion that I've seen is spring-loaded (See photograph to the right). Both types offer easy removability and good security. The spring-loaded mullion that I worked with greatly reduces the probability of miss measuring and miss-cutting the mullion while installing.



Like the key locking mullion, the spring-loaded mullion also had a locking feature to prevent unauthorized removal. The key locking mullion, once installed was a very, very secure—yet easy to remove—piece of hardware. I think both can address different security concerns and needs.

Removable mullions also offer—when removed—unobstructed access and egress, to and from the building in the event it becomes necessary to move large numbers of people in and out of the building during sporting events, shows or dances, etc. For instance: if an auditorium were designed with pairs of doors that had removable mullions, the doors might be propped open and the mullions removed to allow free egress from the building after the scheduled event. If entry is to be restricted, the mullion could be left in place and only one door utilized for ticketed or controlled access.

Regardless of the functional aspects of a mullion in a given application, the practical benefits range from (as mentioned earlier) security issues, to maintenance considerations, to hardware conservation. *Hardware conservation?*

Yeah! Let's assume an installation of a pair of doors *without* a mullion.

In order to secure this pair of doors, Life Safety codes will mandate panic exit hardware, or fire-exit hardware on at least one of the pair. If the local Authority Having Jurisdiction permits just the active door to have the exit hardware; then the inactive leaf has to be secured by means of concealed or surface mounted flush bolts. The active door could then be equipped with a concealed vertical rod device, a surface mounted vertical rod device or, rim mounted exit hardware.

That scenario leaves a space, or gap, between the two doors which is a security concern as well an unacceptable drain on the buildings heating and cooling resources. Consequently, the active door should be equipped with an astragal (and weather-stripping if necessary) to help prevent anyone from bypassing the latching mechanism.

If local codes, on the other hand, disallow flush bolts, then *both* doors will be required to have either concealed or surface mounted, vertical rod exit hardware. Nothing much wrong with that except: if one of the doors has an astragal on it, then a door coordinator is needed to assure proper closing of the doors. That is, the door *without* the astragal is required to close first.

On the other hand, when a mullion is installed, the hardware requirements become less demanding and more economical. Why? That's easy. The doors can be secured with rim-mounted devices rather than the more expensive concealed or surface mounted vertical rod devices. There is

no need for coordinators, astragals, flush bolts and the attendant maintenance headaches that accompanies all that extra hardware.

As a result, mullions are an attractive feature in applications where high traffic, wear-and-tear, abuse and vandalism would normally create a financial drain because of frequent maintenance and replacement of the more expensive hardware needed when a mullion was not utilized. Mullions won't eliminate vandalism, wear-and-tear or product failure costs. Mullions will, however, provide savings through lower initial hardware costs; reduced hardware maintenance costs and, ultimately, lowers hardware replacement costs.

Schools, universities, hospitals, industrial buildings and commercial sites can all benefit from mullions and the increased security and savings they provide.

So, whether you're contemplating a new building, a remodel of existing facilities or simply trying to find a workable solution to the maintenance and security problems associated with double door applications—take a good hard look at those marvelous mullions!

The “Boiled Carrots” part of the title of this article comes from an Olde English Proverb: “It is foolish to bolt your door with a boiled carrot”. This nicely counterpoints the old Yiddish Proverb about “locks being for honest people”.

Boiled Carrots and Restricted Keys

Although we may never be sure who it was, or just where when the first lock was invented; according to history, the Egyptians developed an early wooden, pin tumbler lock about 4,000 years ago. The Romans and the Chinese seem to share the development of the warded lock ... a technology that remained virtually unchanged for nearly a thousand years.

Later, as security technology improved, better mechanical locks made their appearance and those that could afford to do so, bought those



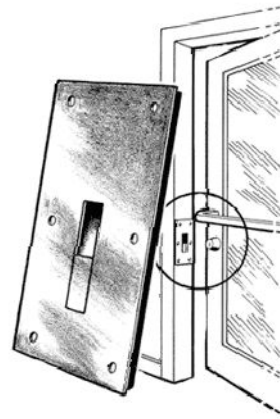
locks for their castle gates, portcullises and doors. By the mid 1800's parententric locks became popular security devices and within a hundred years, keyed knob sets, deadbolts and auxiliary locks were commonplace and affordable.

Today, the DIY aficionado, the custom homebuilder, the institutional facilities director and commercial lock user, all have access to the best, most dependable and secure deadbolts and other locksets than have ever been available . So, how come so many folks don't specify them, buy them or use them?

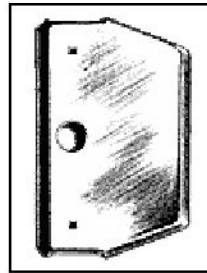
I mean ...it's amazing how many new structures are built — or older ones remodeled — where lock quality and security have taken a backseat to economy. Part of the reason may be due to a desire to keep costs as low as possible or, it could be the mind set of so many folks who subscribe to the old Yiddish proverb about locks only being for honest people. The premise being that if the bad guys and gals want to gain entry, they're going to; regardless of the type lock on the door — especially when that door is an aluminum stile door which has certain disadvantages when it comes to security, anyway.



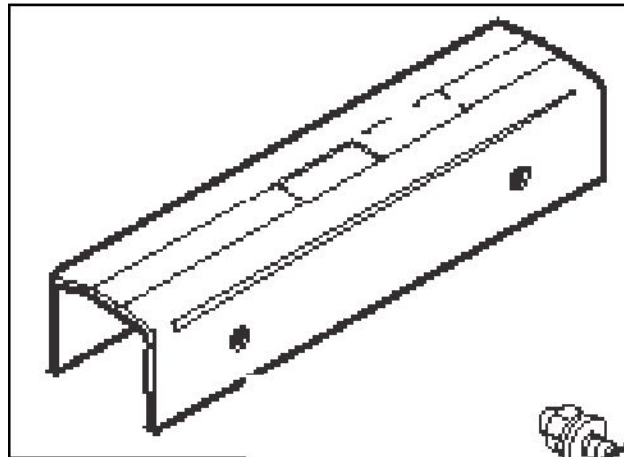
It is true that given enough time, the right tools and the proper knowledge, the crooks and crookettes can enter most any structure they choose. The reality of the matter is that they are more prone to use force than finesse. Consequently, a quality lock, appropriately installed on a correctly hung and properly functioning door, is a definite deterrent to the thugs preferred method of entry — kicking in the door — or in the case of aluminum stile doors, either prying the bolt out of the jamb, breaking the



glass, or simply ripping the stile apart with a crowbar or heavy-duty screwdriver.

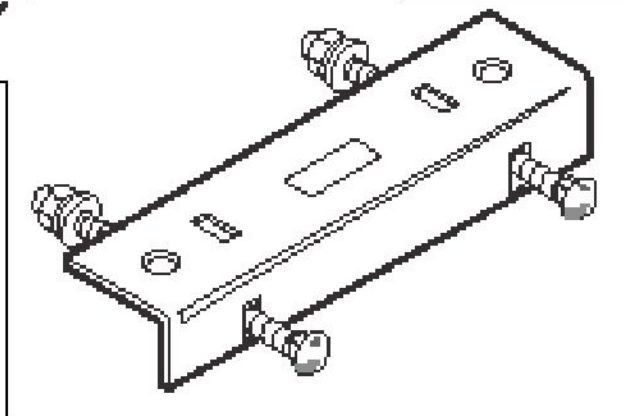


All of which are preventable, or at least can be minimized by “hardening” the aluminum stile door. to prevent the latch, or bolt, from being “ripped” out of the jamb, or the “inactive” leaf of a pair of aluminum stile doors KEEDEX and Major Manufacturing both make products like the *Strike Guard (Major)* that although originally designed to *repair damage after a break-in* is an effective deterrent *against* break-ins.



The Aluma Guard, shown to the left is also an effective deterrent. So is KEEDEX's *Double Door Stile Guard* shown below.

And their *Off-set Stile Guard*, shown directly below.



The degree of security afforded by any locking mechanism (code compliant or otherwise) depends on three things: 1.The quality of the locking device. 2. The proper installation

techniques for that hardware. 3. The proper alignment of the door. An improperly installed, misaligned or inadequate quality lock can be difficult to lock or unlock and puts stress on the mechanism, which will lead to premature failure of the locking mechanism, damage to the door and improperly, or non-functioning locks.

Whether specified, substituted or retrofit; trusting a facilities security to a Pacific Rim-made locking mechanism that costs “a lot less” than a Grade 1 lock is nearly as bad as trying to “...bolt your door with a boiled carrot” (An Old English proverb).

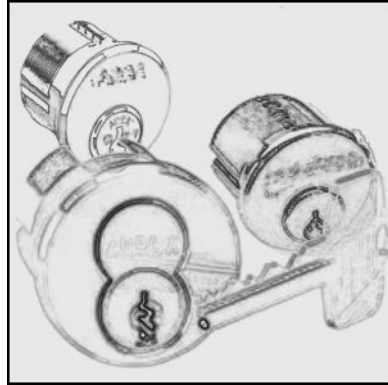
Any lock, must serve three necessary functions. First, the lock set is required to keep the door secure when it's closed. Next, the lock, or locks — especially dead latching mechanisms along with stile guards and jamb guards and other door hardening hardware — must keep *Tommy* and *Tessie Thug* out. Or, at the very least, slow them down enough to allow time to summon help. Third, the locks on the door should send a message to the Thugs that “these premises are not a pushover”. That last can seldom be accomplished with non-rated, offshore knockoffs, or *Discount Dan's Special of the Month*.

You get the idea, right?

Okay, let's assume that the door or opening you're trying to control access to meets all the criteria for a properly hung and operating door. Let's further assume that you have installed all Grade 1, code compliant, hardware on those doors and that hardware is “tough” with a capital “T”. And, let's further assume that you've taken steps to harden the door as much as possible. You're premises are secure now. Or are they?

Even by specifying or installing good quality locks and hardware — as opposed to “bolting your door with a boiled

carrot” — have you only assured yourself, or your client that those locks are only for “honest people” and will be compromised through unauthorized key duplication?



Yes! That's exactly what's been done!

How? Why?

Because you overlooked one very important —in fact, maybe the *most important*— aspect of door security ... the key.

If the locks you specified, or installed have a common keyway (Such as SC-1, Y-1, AR-1, etc.) then, by specifying those locks, you gave *carte blanche* to anyone who can get their hands on one of the keys, and have an unauthorized duplicate made!

When you specify, buy, install, suggest, or supervise the installation of a restricted keyway, depending on its level of restriction, you nail down one of the most important requirements for successful access security — key control.

What are *restricted keyways*?

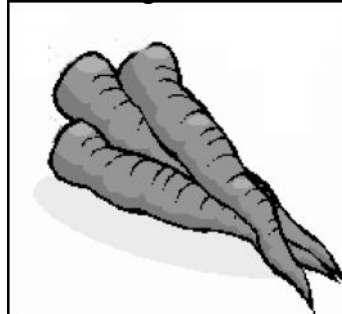
Restricted keyways — and keys — are key and lock profiles whose distribution is restricted by the manufacturer. Illustration #6 shows various lock and key profiles. Those profiles may include unique, or unusual, millings, sidebars or angled millings. There are several levels of restrictions involved in a given system. Generally, the keys cannot be duplicated (because the key blanks are controlled) by anyone except the factory or an authorized factory agent.

The highest level of restriction is at the factory level. At that level, the keys for a given facility can only be ordered

from the factory. A lower level may allow for duplication of the key at a dealer level upon presentation of a card, or documentation when a duplicate is generated. A slightly less secure restricted keyway may be a dealer-based keyway with various profiles assigned geographically. Then there are generic, or “RX” systems used by lock distributors with the keyways common to any customer that “buys” into the system.

The important feature of a successful restricted key program is to utilize a keyway that will give the end-user the greatest amount of key control. Unfortunately, the end-user is often in a position where they cannot wait for factory turn-a-rounds. So, a dealer-based restricted system might have more appeal. The primary consideration is to remove the potential for unauthorized duplication of keys. Once that’s accomplished, and provided good key records are maintained, the risk of unauthorized entry by using a duplicated key falls dramatically.

Are quality locking mechanisms **and restricted keyways** truly only for honest people? I don't think so. As a locksmith, a security consultant, a freelance writer of security related articles and books — as the technical editor for *The National Locksmith Magazine* — and having been on the editorial board of *DHI (Door Hardware Institute) Magazine* and *Crime Prevention Magazine*, I know with a certainty that Tommy and Tessie Thug can be kept at bay.



Provided you buy, specify, utilize and assure the proper installation of hardware that is designed with security in mind and that integrates well with the rest of the door’s components. When you factor in a specification for a restricted keyway — you’ve quit depending on the perceived

honesty of the key carriers and taken control of the buildings access control considerations.

When you bring the door, its components and a good key control system (such as a patented, restricted keyway) together as a security unit— you’ve given up using boiled carrots to secure your customers doors!

After the Sale is Over

(Originally printed in DHI)

Thirty years ago, Lake Alfred, Florida was not much more than a very small town near Lakeland. Lake Alfred is in the heart of Florida’s orange-growing community and, at that time, its main claim to fame (other than the weather and bass fishin’) was the Lake Alfred Experimental Station—a USDA research and development center.

I had just finished a rather large job for the station and couple of the station’s employees, a local patrolman and I were standing outside in the cooler evening air, swatting mosquitoes and talking about everything and nothing, when the maintenance director half-jokingly said:

“Well, Jake, now that you’ve sold us all that expensive hardware, I guess we won’t be seeing much of you.”

I assured him that wouldn’t be the case.

It was.

Of course, there were other bids. Other jobs, in other localities. And, other evening conversations with local folks after those jobs were completed. But the fact remains, regarding the Lake Alfred job, I fell into what I call the *After The Sale is Over, Syndrome*. That is: the surveys had been concluded, the specifying had been completed, the bid

accepted, the sale nailed down and the hardware or products had been installed. In other words, the sale was *finalized*.

And, if the sale was finalized...*what else was there?*

Well, let' see. There are repairs, replacement, rehabilitation, and restoration...*after the sale is over*.

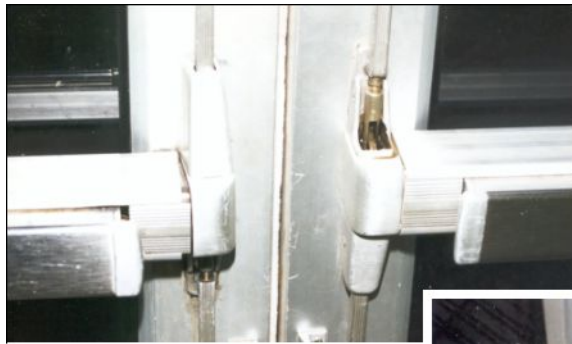
How long after?

That depends. But one thing you can rest assured of is: no matter what quality doors, or door hardware, you specified, sold, or installed that hardware is going to need servicing and maintenance. Hinges get bent. Locks loosen. Closers and door operators become dysfunctional and doors get twisted, racked and abused. Many of those failures and mechanical problems have nothing to do with the quality of the hardware. The problems are caused by vandalism, wind, broom handles stuck between the edge of the door and the doorframe, and plain ol' neglect.

The cause of the problems is immaterial. However, the *one* thing those problems have in common is that they all occur *after* the sale and installation of the hardware and unless there is a warranty issue, the seller/installer of that hardware seldom takes advantage of the opportunity to garner a few more shekels from the job. Did I say "few"? Pardon the slip. The potential for vigorously shaking the *Shekel Tree* is unbelievably high when it comes to upgrades, retrofits and just plain out-and-out maintenance...***after the sale is over***.

Let me show you a couple of examples.

The doors in the photograph (below, and to the left) when installed, were equipped with surface mounted vertical



rod panic hardware, heavy-duty pivots and concealed floor checks. All hardware was top quality and properly installed.

Because this door was ultimately used to move patients outside to a mobile magnetic resonance machine, the gurneys, beds and wheel chairs caused chronic damage by bending or breaking the vertical rods (Creating an ongoing maintenance problem). Gurneys and other equipment being moved through the door—and striking the ends of the panic exit bars—caused failure of those units over a period of time. And, finally, as can be seen in the photograph at the right, the floor checks developed severe leaking problems and caused a slip hazard from the oil they contained and a unsanitary appearance caused by the dirt that accumulated in the leaking oil (See photograph to lower right).



Fixing the “problem” required re-evaluating the usage of the door and its hardware requirements. That is, the door was originally planned as an entrance for doctors, employees and the occasional visitor. If its usage had remained as planned, the chances of a major overhaul of the door hardware might not have been necessary. With the added burden of gurney and bed traffic, wheel chair traffic and increased pedestrian traffic; the door although utilizing quality hardware, was no longer ideally equipped for the increased its new function “load”. Especially the gurneys, beds and wheel chairs.

The first step in rehabilitating this door was to neutralize the floor check—the option is to remove the defective



checks and replace with new—by installing a pivot deactivator as shown in the photograph to the right.

The next step was to install surface mounted closers; one of which is shown in the photograph to the left.



Then a key-locking mullion was installed and, finally, two rim-mounted exit devices with hold-open function were installed.

See photograph

above.



You have to keep in mind that since the floor checks were *deactivated* or *neutralized* the door had no means of closing automatically which required the installation of the closers shown above. Similarly, with the *Surface Mounted Vertical Rods* were removed, the door had no way of latching. Therefore the mullion

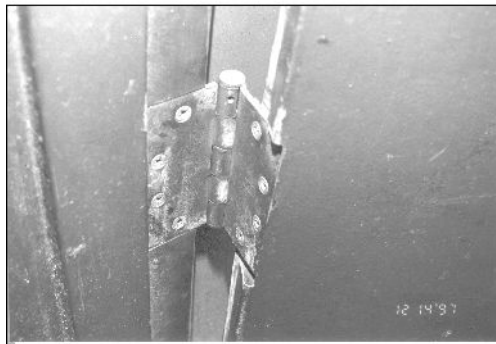
shown above was installed. The *removal* feature of the mullion was selected to allow the passage of large pieces of equipment and oversized beds, etc.

The photograph to the left shows the “rehabbed” door from the inside after all the hardware had been installed...

The photograph to the right shows the completed rehab from the outside.

Individually, or in concert, the doors can be placed in a hold-open position (which alleviated the problem of gurneys, etc. damaging the panic hardware) and the key-locking mullion could be removed to allow unimpeded passage of gurneys, beds, wheel chairs and large pieces of equipment or furniture. With the exposed vertical rod exit hardware removed from the doors, the chronic repair and replacement of the rods was eliminated. With the floor check deactivated, the oil “bleed” and unsightly mess made by accumulated dirt and debris was removed; and the mullion allowed the use of the rim-mounted, single-point latching of the doors.

Another example of continuing service *After The Sale is Over* is the door shown in the photograph (bottom of preceding page and to



the right). The extensive damage to the hinges was caused by a strong wind.

The continuous hinge shown on that door (plus a crash chain) corrected the problem without necessitating the replacement of the door.

What does each of these scenarios have in common?



They are opportunities for the suppliers, dealers and installers of *new* door hardware to maintain a presence in the minds of companies that you have devoted hours of time to specifying doors and door hardware, bidding, guiding, consulting and, hopefully, ultimately installing for that customer. Does it make good sense to walk away from such a relationship simply because the *initial sale* is over?

That's sort of like pretending your significant other doesn't exist *after* the vows have been exchanged!

The easiest way to keep your relationship with your customer alive and viable is simple: Pay on-going attention to them and their hardware needs

First, you let them know that you appreciate doing business with them and you want to continue to do business with them in the future by addressing their maintenance and rehabilitation and retrofit needs.

Second: send them reminders from time-to-time that you are interested in the continuing safe and code compliant operation to the doors and hardware you specified for their building, or buildings. This can easily be accomplished by

sending one of your employees to their facility to do a “free” spot check of the doors and hardware. And, that’s also a great way to earn some *Attaboy Points* on when things are a little slow. Even if they have a competent maintenance staff, the customer often relies on the expertise of a *trusted* vendor to help develop and implement effective maintenance programs. That’s you.

And thirdly: If the customer calls you for maintenance or your “inspector” finds a problem with any of the doors or hardware — or customer modifications that have put the door outside Life Safety of ADA compliance — bring it to the customers attention. And ... let them know you are able to “restore” that door or closer, or exit device to its original operational condition. Or, that you are able to supply their in-house maintenance staff the *proper* hardware to rectify the problem.

By being aggressively involved in the “follow-up” aspects of the doors and door hardware you originally sold the customer, you can continue to vigorously shake the Shekel Tree long...

After The Sale is Over!

The Troll of Trite

Since I often sign my posts on the internet fora “*The Troll of Trite!*” folks are prone to ask where such an appellation came from and what does it mean.

The Troll came about as the result of a discussion between another ‘smith and I who had found ourselves on quite opposite sides of a discussion regarding *Freedom of Speech*.

About the time that the *Ledger* was sold to Cygnus publications a rather large and vociferous reaction took place among the various fora of the Internet and, figuratively speaking the torches were being lit and the castle about to be stormed to prevent “sensitive” information from being disseminated to the public.

Cygnus actually had the temerity to offer Ledger subscriptions *on-line*!

There was a whole lot of discussion about “morality”, the sanctity of our craft, the damage such information would have in the hands of the untrained, ill-equipped and morally bankrupt.

Although my position was that Cygnus had not broken any laws and by offering subscriptions via the Internet or wherever: they were perfectly within their *legal rights* to do so. From a moral issue; the decision was theirs as well.

One individual not only took exception with the idea that anyone should be allowed to sell, disseminate or broadcast such information but felt that *Uncle Sugar* should step in and protect such information under whatever censorship laws existed or could be promulgated.



After several posts over a period of days the ‘smith in question told me that my posts (In defense of Freedom of Speech) were trite and in the time-honored tradition of the Internet I was a troll and being “plonked”.

Thereafter the Troll of Trite has made regular and frequent appearances as sort of my alter-ego. As can be see in the photographs below (And, above to the right), he is often decked out in proper seasonal regalia.



So, keeping in mind that there's a slightly devilish side to the way I think and write don't be surprised if the troll pops up somewhere along the line and throws his two cents worth into the mix.

Builders Magazines

Writing for the builder's magazines was an interesting project as I was never certain what the topic of the article would be until the editor called and wanted "...1,500 words on _____. They'd give me a couple of "contacts" and tell me they needed the article within a week!

Consequently, I wrote about a variety of subjects from trim and moldings to doors and locks.

It helped that I had spent some time in the construction industry and had a slight grasp on construction processes and techniques — as well as a bit of a handle on the "jargon".

On the following pages are samplings of the variety of subjects that I wrote about. And, as with much of what I have written, the research needed to "develop" these articles benefited me from a standpoint of teaching me something new — like learning that kitchen countertops are a relatively recent innovation, circa the 1930's.

Whodathunkit?

The Finishing Touch!

Completing the interior — as well as the exterior — of a home without employing molding or millwork products to dress out or "finish" the project is like going to a formal dinner and not wearing a dinner jacket ... the sartorial deficiency is glaringly obvious.

Homes are like that too. If trim and millwork products (the dinner jacket) have not been incorporated in the design, the oversight can be just as glaring. After all, a "finished"

room, without trim, is simply another painted box. Although you could finish the exterior of a project without the benefit of millwork products, the results would be less than eye-catching.

Aside from the furnishings ... molding, trim and millwork products such as wainscoting, paneling, mantels, cabinetry, crowns, coves, casings, cornices, beds and baseboards are what make a room comfortable, impressive, inviting, commanding or subdued. On the exterior, louvers, crossheads, pediments, pilasters, columns, balustrades, cornices, quoins and decorative fascias all combine to create an individuality of design that's just not attainable with "flat-board" finishing.

Face it: properly selected millwork products are what will give a room, the entire home or a commercial structure, its own personality and unique character.

With the wide variety of "natural" and man-made millwork products available to today's builder there's little reason — including price — for you to fail to offer your clients the décor enhancing benefits of customized trim and millwork. Why?

That's simple: molding and millwork products are manufactured from a nearly endless variety of materials. Milled from the most costly hardwoods to economical injection molded polymeric substitutes, elegant, attractive, functional and durable trim décor is available through you, the builder, to virtually all of your customers — regardless of their project budget. That holds true whether you're building a multi-million dollar custom mansion or an *economy scale* "spec" home.

In addition to the wide selection of molding and trim materials available, the "profiles" or styles of millwork products is mind-boggling. Jeff Metz, the Advertising Manager for Weaber, Inc. (Pronounced "Webber".) said his

Lebanon, PA based firm, offers seven-to-eight hundred profiles in their solid wood —primarily poplar— moldings and trim products. Metz went on to say that Weaber also produces finger-jointed casings, quarter rounds and a wide spectrum of other trims designed for paint application rather than staining or clear finishing. He pointed out that some finger-jointed molding products were wrapped in an oak veneer to eliminate joints and offer 16', "seamless" lengths of trim that could be either painted or stained as desired.

Chris Kriestch, the store manager for Fairfax Lumber and Millwork said they cater to a wide variety of consumer needs, from the builder to the end user, when it comes to moldings and millwork products. In addition to making custom hardwood trim runs for renovations, Fairfax offers oak and poplar moldings along with cellular PVC, urethane and MDF products.

Kriestch sees a trend developing, to which Fairfax is responding, in custom hardwood kitchen cabinetry and hardwood entertainment units for television and electronics. He said: "The trend is technology driven. In the past, a person might have a TV and stereo with four or five components and they could put the whole thing on a couple of wall shelves. Today, with DVD's, CD's, surround sound, satellite TV, etc. that same person might have as many as twenty components they need to organize. Consequently, the individual who buys into the high-end home-entertainment products wants more than a do-it-yourself entertainment center."

At White River Hardwoods-Woodworks, Inc., Julie Barton said the demand for ornamentally embossed or traditionally smooth hardwood and MDF (Medium Density Fibreboard) moldings are at an all time high.

To answer the resurgence in demand for more ornamental trim products, White River offers hundreds of profiles in polar, red oak and "fifteen other species, on

request" to assist you in fulfilling the most demanding requests for the elegance of hardwood or the economies of MDF moldings.

Barton stated that in addition to White River's offerings of moldings for every price point—to cover virtually any application—they produce their complete line of profiles in flexible resins for curved and radius applications. Quoting an NAHB Show release, Barton said "...decorative moldings... typically return 3-5 times their cost in the selling price of the home."

[Note: Medium Density Fiberboard molding products are manufactured from the fragmentary leavings of the lumber milling process — or ground-up cuttings that cannot be utilized for dimensional lumber — that is mixed with resinous or polymeric binders and either molded or machined into the desired profile. Many MDF products are designed as paint grade products. However, as mentioned above; some MDF profiles can be wrapped with a veneer for a given aesthetic effect; or to allow for staining or clear finishing.]

The warmth, elegance and grace of hardwood moldings cannot be denied. However, the price of good quality hardwoods can make many of your customers shy away from the natural molding and look for alternatives such as MDF products. Other alternatives include urethane; styrene and similar polymeric products that fill a market niche which might otherwise do without the architectural accents those alternatives provide.

Chemcrest is one of those companies that provide alternative architectural motifs in urethane composites. Tamara Fast, president of Chemcrest said the future of synthetic composite trim and millwork products was bright. Fast said: "As the building industry becomes more competitive, builders are going to turn more and more to ornate or unusual trim and millwork products to give their

projects a recognizable flair or signature. Composite products will give the builder a cost-effective means of doing that.

"In addition to the market push to composite trim and millwork products, the builder benefits from the ease of handling and installation and the end-user benefits from the durability and often maintenance free aspects of composite products."

Style-Mark, Inc. offers over 4,000 pieces of moldings and trims in their Architectural Accents® line, made from high-density urethane for interior and exterior applications. Unlike their hardwood counterparts, these urethane products do not require any sanding, priming or sealing, are easy to handle and install and the practically maintenance-free aspects of the urethane products make them acceptable for residential and commercial applications.

Stan Regent of the Foam Factory in Fort Lauderdale, said that aside from the price point considerations, polymeric moldings and trim products, such as those produced by his firm, had several advantages over traditional millwork products. Polystyrene moldings can be made —literally— in any design, length, width and texture that the customer wants. And, each design is available in lengths that insure the minimum number of joints. It does not have to be sanded, primed, sealed or "finished" and can easily be installed with basic tools and adhesives. Regent pointed out that the demand for alternative molding and millwork products was, according to his observations, increasing almost daily.

There's little doubt that the customer's wishes and wants are going to play a big part in how their home or commercial structure is finished and what trim or architectural décor products are used. As a builder, you are in the enviable position of offering that customer a trim package they can afford; yet one that will also enhance your

bottom-line. Look at it this way: the labor needed to cut a given piece of molding — whether a hardwood or synthetic material is basically the same. However, regardless of the material used there is a niche or application for all of it, whether traditional or alternative.

Custom built, high-dollar homes, spec built homes or production line mobile and modular homes all have trim and millwork needs that can be met by today's molding and millwork industry. And that industry is ready to supply you with virtually any style, type, material or profile of trim that you and your customer need.

Consequently, the resurgent demand for traditional hardwood trim and the increased demand for alternatives can easily mean more profitable business for you if you're willing to offer your customers the best trim package they can afford. With the variety of materials, profiles and décor items available to you, there's little reason you can't increase your share of a very profitable market, simply by giving each project the perfect finishing touch!

ARTIICLE FOR: THE VIRGINIA BUILDER
ARTICLE TITLE: "Heating and Cooling Systems"
ARTILCE LENGTH: 1232 Words
AUTHOR: Jake Jakubowski
919-692-0005

Heating and Cooling Systems

The first evidence that mankind used fire for cooking, and undoubtedly heating, was discovered in a cave near what is now Beijing, in northern China. This 600,000 year-old archaeological site bears out the theory that as our early ancestors (*Homo erectus*) moved north and faced colder winters, they were most likely the first humans to master the use of fire. Other evidence of the use of fire by our long forgotten ancestors was the charred animal bones also found in the cave.

Regardless of when fire was first used by mankind, the fact remains that for the last six hundred millennia we've have been trying to find better and more efficient ways to heat and cool our homes, office and workplaces.

From open fires on cave floors, we graduated to stone rings around the fire (Some of the first radiant heating systems in the world!) to stone fireplaces, stoves and ultimately furnaces and central cooling and heating units.

In the last thirty years, energy conservation has mandated that peek performance and efficiency become priorities. In response to that mandate manufacturers of heating and cooling equipment have adopted ratings guidelines established by the Federal government for minimal efficiency.

The current efficiency rating for air conditioning units is SEER (Seasonal Energy Efficiency Rating). This is the average ratio of cooling capacity in BTU's (British Thermal

Units) per hour, divided by the electrical power, in watts, over a wide range of conditions. The minimal residential rating is 10. Higher ratings (more efficient units) are available at a higher cost.

For instance, new gas powered heat pumps have SEER ratings of 27, or higher!

With an oil or gas burning appliance its efficiency is determined by calculating the comparison between the heat of combustion and the heat of the exhaust. Then the amount of heat captured by the heat exchanger is determined which becomes the unit's efficiency rating.

The efficiency of an oil or gas device is expressed as A.F.U.E. (Annualized Fuel Utilization Efficiency). Like the SEER, the A.F.U.E. label allows the consumer to make comparisons between various heating units.

Unlike our early predecessors, today's homeowner and builder have a broad selection of efficient heating, cooling or combination comfort packages to choose from.

Radiant floors are enjoying a comeback and increasing in popularity. With radiant flooring, hot water (Hydronic Heating) is pumped through tubing that has been placed in or under the floor, which warms the floor and tends to make the room feel warmer than it is because the feet feel warmer. With new materials for the tubing and computerized thermostats that compare the inside and outside temperatures and adjust the operating temperature of the heating appliance to meet demand rather than maintaining a specific temperature. This increases the overall efficiency of the system. During warm weather unit maintains a temperature sufficient to satisfy only hot water needs.

According to Perry Martinelli, Territory Manager for Lennox Industries of Baltimore, Lennox manufactures

CompleteHeat®, which provides virtually unlimited domestic hot while simultaneously heating the home through either forced warm air or hydronic radiant heating system installed in the floor. According to Martinelli, Lennox's CompleteHeat® has an A.F.U.E. of approximately 92%. Lennox offers this unit as an industry benchmark when it comes to hot water recovery and energy efficiency.

Warm air oil and gas fired furnaces produce heat by burning petroleum fuels in a sealed chamber to heat an exchanger. A blower fan forces the heated air across the exchanger and into ductwork to warm the home.

Modern gas-condensing and oil-fired gas furnaces are at least thirty percent more efficient than their counterparts of even ten years ago. Improvements in combustion technology, (including condensing coils to extract as much heat from exhaust gases as possible) has enabled "standard" line oil furnaces to provide efficient operation at economical prices. Overall, even 'low end' products from reputable manufacturers are far superior to the units produced in the past; making today's investment more equitable — after figuring in the increased A.F.U.E's over the life of the unit — than ever before.

Bryant's gas-fired furnaces with variable speed motors like the Plus 90i with PerfectHeat®, automatically operates at the ideal capacity to efficiently warm a structure. On typical days the Plus 90i operates at a lower capacity to maintain desired comfort levels. During more extreme temperatures, the Plus 90i automatically increased its output to a higher capacity. Resulting in increased fuel and electric savings.

Martinelli pointed out that since current government mandates do not allow less than 80% efficiency, Lennox's CompleteHeat® comfortably exceeds that efficiency level

and because the unit is so efficient, the need for B-vent vent is eliminated. CompleteHeat® can utilize a PVC pipe placed through the sidewall of the structure as a vent.

Heat pumps are rather interesting appliances since they can be used to heat or cool. In the heating mode, the heat pump collects heat from an outside source (a condenser) warms a refrigerant and discharges the heat to the inside of the structure by means of an air handler.

With the help of a reversing valve, the refrigerant moves in the opposite direction and the heat is extracted from the air handler and discharged outside. The cooler air is returned to the interior of the structure cooling the premises. According to Lennox's Martinelli, heat pumps like the PowerSaver® will have to use a newer refrigerant - R-410a. Lennox will make R-410a (marketed as Environ®) available in all its newer heat pumps or air conditioners as required.

Environ® carries a SEER rating of 13 and is, to all intents and purposes, ozone friendly since it contains no HCFC's.

Bryant's answer to the phasing out of R-22 is their Quantum Plus heat pump using Puron refrigerant (R-410a). In addition to high SEER ratings and impressive HSPF (Heating Seasonal Performance Factor) their Models 650A and 652A offer environmentally safe Puron as an alternative to Freon® 22.

Back in 1902, when Willis Carrier invented air conditioning, controlling your indoor weather meant simply maintaining a comfortable temperature inside. Today, things have become more complicated as indoor environmental needs have changed. Although Carrier markets stand-alone air conditioners such as their model 38TZA, they have expanded their product base to include heat pumps, furnaces and other packaged "central" units. Carrier heat

pumps and air conditioning units now use the ozone friendly refrigerant Puron® to help prevent ozone depletion. Their oil and gas fired furnaces have A.F.U.A ratings exceeding 96%.

As you can see, from heating to cooling, whatever your requirements are, there's a system out there that will meet them.

Another benefit is that most modern heating and cooling systems have "zoning" capabilities where more or less heating and cooling can be directed to different parts of the structure depending on the occupants comfort levels.

Additionally, many of today's better heating and cooling systems are controlled by "computerized" thermostats that monitor both outside and inside air temperatures. Then after "comparing" the two, "adjust" the heating or cooling unit's output accordingly. Thus making the unit work more efficiently.

Virtually all of the systems mentioned in this article are capable of producing reliable, efficient heating and cooling for years to come. And, with the efficiency label requirements, it is easy for you to determine your "best" buy.

Think about it. After 600,000 years, mankind has finally gotten smart enough to design heating systems that he can truly be comfortable with.

Ain't it about time?

Engineered Wood

An Environmentally Sensible Building Resource

Word Count: Approximately 1,000

By: Jake Jakubowski

Engineered wood is a broad category of wood products used by the construction industry, the do-it-yourselfer and hobbyist. Basically, engineered wood products encompass a full spectrum of wood products such as roof trusses, floor joists and panels of all sorts that are manufactured out of wood and wood by-products to fill specific needs. The list of products under the broad umbrella of the term, “Engineered Wood” runs from particleboard, to “Glulam” beams and nearly any “designer” wood product manufactured.

It’s difficult to say when — or by whom — the first engineered wood products were made but; most authorities agree that plywood, with log veneers placed at 90° to each other and glued together, is the granddaddy of engineered wood. And, although slow to catch on, plywood has since its inception been widely used for a variety of conventional and offbeat construction projects (i.e., John F. Kennedy’s PT-109 had plywood gas tanks made of plywood. An idea that was developed by Ava Gardner!).

Linda Cardwell, of Trim Joist (manufacturer’s of open web floor joists), told me that the structural grade, engineered, wood products Trim Joist produces are comprised of 35% recycled material (wood scraps, chips, etc.) and smaller (2x4’s, 2X6’s, etc.) dimensional lumber. Cardwell said that producing joists made from engineered wood lessens the environmental impact caused by cutting old-growth trees for the larger dimensional lumber that conventional joist fabrication requires.

She went on to enumerate the benefits of Trim Joist’s open web design which allows plumbing, electrical and heating and air-conditioning, pipes and electrical conduit to

be run without the need of cutting holes in a solid joist; thereby weakening its structural integrity.

Cardwell went on to point out the labor-saving benefits of Trim Joist's unique TrimEnds feature which allow the truss to be trimmed on the job site for an exact fit. The TrimEnds overcome the problem posed by pre-built, dimensional lumber trusses which, typically, cannot be adjusted for site conditions that may not be anticipated.

Sean Huwar, Technical Manager for Engineered Wood Products at Bosie Cascade pointed out that any discussion of engineered wood products is not complete until mention is made of glued, laminated timber. Huwar said that Glulam products are often forgotten in an increasingly crowded field of newer products.

Huwar stated that although most Glulam beams and timbers are used in concealed applications, exposed Glulam beams are available for nearly any architecturally mandated appearance level. With exposed Glulam beams, trusses rafters the natural warmth and beauty of wood is realized without sacrificing strength and durability.

Although particleboard is not normally looked on as an engineered wood, it is exactly that. Today's particleboard — unlike the particleboard of twenty years or so ago — has a high internal bond, giving this engineered wood uniform density and strength, smooth surfaces and a machinability that is unparalleled.

The newest generation of quality particleboard has such smooth surfaces that it can be used as the base for the thinnest laminates without "telegraphing" irregularities through the laminate. The strength and density considerations of today's particleboard make this engineered wood ideal for kitchen cabinets, stereo and television cabinets, home and office furniture and a variety of other consumer and industrial products.

From particleboard to hardboard major companies such as Bosie Cascade and Georgia Pacific are producing high quality products that are utilitarian and decorative. Engineered hardboard is produced by mixing hardwood fibers with phenolic resins and subjecting them to intense heat and pressure in a hot press. This process delivers a product that is smooth on two sides, comes in a variety of finishes, textures and colors and is as durable as it is attractive.

Engineered hardwood panels are used for room dividers, utility panels, wallboard and perforated “pegboard” panels. Like other engineered wood products, engineered hardwood is capable of filling a wide variety of needs and applications.

Thermally fused Melamines are decorative engineered wood products that are used as laminates on kitchen counters, entertainment centers and a host of residential and commercial furnishings.

Laminated Veneer Lumber (LVL) is an engineered wood product that is technologically superior to solid woods because the veneer technology converts about 30% more of a given log into usable product when compared to conventional, solid wood products. LVL engineered wood is also about 50% stronger on a pound-for-pound basis than any normal solid woods.

The fact that 30% more of the log is converted to usable product when compared to sawn dimensional lumber makes LVL an economical alternative. Add that to the fact that LVL is stronger than its conventional counterparts, LVL becomes the practical candidate for applications such as floor joists, garage door, window and door headers, as well as hip and ridge beams.

Engineered woods are an even more attractive alternative today than ever before because along with the ability to turn out greater and greater numbers of profiles, the manufacturers of engineered wood products have better and more reliable resins, binders and glues at their disposal.

The newer high-tech resins and binding materials have allowed the producers of manufactured wood to expand their horizons when it comes to developing and producing new products.

With the costs of milled dimensional, solid wood products increasing on an almost daily basis, it makes sense to turn to an alternative product that is stronger, more durable and easier to saw, mill, drill, sand and machine than "normal" wood.

From an environmental standpoint, engineered woods are less unkind to the ecology in several ways. First, engineered woods utilized more of a given tree than conventional sawn products do. Secondly, engineered wood products do not require harvesting of the older-growth trees that large dimension, conventional lumber does. Plus, new crops of trees can be planted with a faster harvest time since the engineered woods do not need large dimension flat boards to "do its job".

Additionally, engineered wood is not only practical, economical and environmentally friendly, it is, or can be, as beautiful and warm as any piece of naturally grown wood.

ARTICLE FOR: VA BUILDER
ARTICLE TITLE: The Art of Choosing Countertops
ARTICLE LENGTH: 750 Words
AUTHOR: Jake Jakubowski

The Art of Choosing Countertops

There was a time when a countertop in most kitchens consisted of the drain board on the sink; and countertops in bathrooms were non-existent! My grandmother's "work surfaces" were the stovetop, the kitchen table and her drain board — and she didn't have a *"vanity"* to put a top on!

That's not to say there were no such things as countertops — there were — but mostly in grocery stores and butcher shops.

The residential countertop came into existence when Joe Kennedy was having his house built in Hyannisport. An architect dreamed up the concept of kitchen "cabinets" as opposed to "cupboards".

As you might expect, the open tops of the upper cabinets didn't present any problems since they butted against the ceiling. Unfortunately, the lower cabinets were too short (because they didn't have a countertop on them) and there was no place to put the built-in sink — which meant there was no drain board for Mrs. Kennedy to use when she washed dishes.

It was obvious to the architect, the cabinet installer, the builder, the interior decorator and the parish priest that something was lacking in this new concept.

A carpenter named Jeremy Finnegan, used 2" X 12" flooring to cover the exposed cabinet tops thus making a "counter". He had a little trouble with the built-in sink but,

with Jeremy's idea, residential countertop made their debut and a new industry was born.

Today, the professional remodeler, the cabinet maker and the dedicated DIY'er have a greater selection of materials, designs and construction options for countertops than any other time in history!

Wood is widely used in the manufacture of countertops. Solid wood is chosen when the homeowner wants the elegance and warmth that wood imparts. Wooden countertops may be laminated, tongue and groove or "butcher block" construction. Although wood can be finished to suit individual tastes, wooden countertops need careful cleaning, on-going care and periodic refinishing.

Granite, slate and marble are commonly used in countertop constructs. Each has its own special benefits (and drawbacks) as a countertop material with granite being the most durable of the stone materials and marble being the softest. In fact, marble is most often used only as countertop inserts for special usages like pastry boards.

One drawback to granite and slate is the fact that the countertops have to be "pieced" together due to the limitations and expense of the finishing process for large pieces. Whereas Engineered Stone, urethanes, epoxies and laminated materials can be "made-to-fit".

Engineered Stone is a "natural" product composed of quartz and sand (silica) which is exposed to extreme pressure and high temperature to form a product that looks like granite or travertine marble. It's more durable, has a higher stain, mold, acid and scratch resistance than other natural stone. The available patterns, colors are somewhat limited.

Quarry tile, ceramic tile and Mexican tile, are popular countertop materials. With the diversity of patterns, colors

and sizes these tiles have a greater decorative potential than natural or Engineered Stone. However, quarry tile and Mexican tile are much more porous than ceramic and glazed tiles and require special initial sealing, specific cleaning procedures and periodic resealing. However with all tile installs, the grout should be a silicone-type product to reduce the potential for mildew and mold growth

Urethanes and epoxies offer heat, scratch and mar resistance and eliminate the need for specialized cleaning, care and sealing. Countertops that are cast or formed from these compounds give the installer the convenience of "one-piece" installs and a wide choice of patterns and colors.

Laminated countertops are particleboard countertops with Formica, or other "sheet" goods, glued to the surface. Since the Formica tops are made from polymers, the variety of design and textures is broad. From a cost standpoint, laminated countertops are probably the most economical. On the plus side, they usually clean well with a damp rag and mild cleaner. On the negative side, de-lamination (the separation of components) can occur if moisture gets "under" the Formica top.

So, no matter how complex, esoteric or simple your countertop needs are, there is a material, design and color out there just waiting for you to discover it. Home Centers, cabinet shops, lumber yards, building suppliers, millworks and architectural supply houses are among the places you can select the countertop of your choice. Or, you can, like Jeremy Finnegan, let your imagination run rampant and bring your own unique perspective to your next countertop project.

Who knows, maybe I'll be writing about your contribution in a future article?

Newspaper Stuff:

For about a year, or so, I wrote a weekly column for two local papers: *The Oxford Ledger* and *The Henderson Dispatch*. The column was titled: "Lockin' Up!" and the content ran the gamut from security related stuff to just stuff. On the next several pages, you will be able to read a sampling of those articles

Yes, Virginia, There Really Is An Eppes Fork

Nearly five years ago, when Christie and I first moved to this area, I saw a classified ad in the paper that offered locksmith tools for sale in Eppes Fork, Va. Not knowing where Eppes Fork was, I asked my friend, Jerry, if he knew how to get there.

"Never heard of it!" Jerry said. "But, it's got to be north of here!" Thanks, Jer.

Shortly thereafter, I opened the local telephone directory to get the number for the business office, and the phrase "(Eppes Fork, Va. — Customers Call Collect)" caught my eye. When I finished discussing my telephone needs with the service representative, I asked her if she could tell me where Eppes Fork was. "I'm not sure, sir, but I think it's north of here somewhere. Would you like to speak to my supervisor?" Thanks, anyway.

The next time I had an opportunity to inquire about Eppes Fork, I was on my way to do some work in South Hill, Va. I pulled into the Virginia Welcome Center, and as I walked inside an attendant, with a cheery smile, said, "Welcome to Virginia, sir! If I can assist you with anything, please let me know."

She did not know where Eppes Fork was. The other smiling attendant did not know where Eppes Fork was. And, the cleaning person, who was not smiling, did not know where Eppes Fork was.

"I'm sorry, sir," said the attendant with the cheery smile, "but it's not listed on any of our maps. I can give you the telephone number of our office in Richmond, which is (So help me, she really said this!) north of here. Maybe they can help." Thanks, again!

Believe me, I was not getting paranoid about Eppes Fork, Va., but it really was beginning to take on sort of a "Twilight Zone" characteristic. After all, no matter who I spoke to or where I was Eppes Fork was either "north of here" or they

"never heard of it." Rather than allow myself to get frustrated over the location of Eppes Fork, Va. (the existence of which I was beginning to doubt), I forgot about it.

The other morning, a gentleman called and asked what I would charge him to install some deadbolts. I asked him where he lived. He said, "Do you know where (you guessed it!) Eppes Fork, Va., is?" Now, I may not have been ready to kill for that information, but I certainly might have been willing to glare at someone, if that would get me the location of Eppes Fork, Va.!

"No, Sir!" I said. "But, I believe it's north of here!" He gave me directions, we agreed on a price for the work to be done, and I, finally, knew where Eppes Fork was! Not only that, but I was actually going to go there!

After crossing into Virginia, I saw two teen-agers riding their bikes, and stopped to ask them if the road went to Eppes Fork. One young lady looked at the other, with a raised eyebrow. She turned back to me, and with an almost haughty air, responded, "Sir, this is Eppes Fork!"

After finding my customer's house (it didn't take long) and completing the work, I drove around Eppes Fork, Va. That didn't take long either. I want it to go on record that Eppes Fork is a nice place. It's rural. It has a lot of tobacco, corn and bean fields. It has a lot (not a whole lot) of nice homes and cottages. It does not have traffic problems. It does have the only blue and white stop sign that I've ever seen.

Where is Eppes, Fork, Va.? It is not on any map that I have seen. It does not have a zip code (I checked). Even the state of Virginia does not list it on its courtesy maps. Maybe the state doesn't know about it. Or could it be that the location of Eppes Fork, Va., is semi-secret? In that case, I'd best simply say, "Eppes Fork, Va.? I think it's somewhere north of here!"

R.L. "Jake" Jakubowski and his wife, Christie, are owners/operators of A.A. American Locksmith, which has offices in Henderson, Oxford, Wake Forest and Franklinton/Louisburg. Jake also is a technical and trade writer for a national locksmithing magazine.



Lockin' Up

By Jake Jakubowski

To Criminal Population

Another of the few remaining bastions of security, safety and serenity has been lost.

I mean, up until recently, a person could be fairly sure that answering a call of nature was relatively safe and violence free. Now, you have to be careful that you don't get caught (so to speak) with your pants down if you decide to avail yourself of the facilities at rest areas along the interstates.

As indelicate as the subject may seem, it's a sad commentary on our times when a person with nothing more on their mind than easing the discomfort that a hundred miles of coffee drinking brings, can't do so without worrying if Tommy or Tessie Thug are lying in wait. Talk about invading your privacy!

From a tactical standpoint, I can see the Thugs' reasoning behind a "washroom" attack. After all, how much more vulnerable can you be? Depending on your gender (and the reason for your visit), either your hands are occupied or various articles of clothing have been unbuttoned, unzipped or unbuttoned and are hanging in such a way as to preclude your making a run for it!

Traveling from the earliest of times has always had an element of risk associated with it. Aside from broken wheels, lame horses, broken pistons, dead batteries, wild animals, bad roads and the Donner Pass, there have been highwaymen, hijackers and hustlers throughout history to keep the traveler from getting bored. Now, we have to add

restroom robbers to the list!

In case some of you may not know what I'm talking about, a couple recently was robbed at the rest area on I-85, south of Oxford. Yes, I said a couple. As the man and woman entered their respective restrooms, a bandit followed each one and robbed them!

Now, one local incident does not a crime wave make, but if you've been keeping up with the news, rest areas have become the "in place" for the crooks and the crookettes to ply their trade. With the shooting death of an English tourist, and the wounding of his girlfriend at a rest area in northern Florida, and the assaults, rapes and robberies that have been reported on a national basis, rest areas begin to lose their appeal as a "convenience stop."

So, short of carrying a Porta-Pottie in your car when you go to visit grandma or the Grand Ole Opry, how do you keep from falling prey to these *skatokopfic* "dysfunctional elements"? Obviously, you're going to need to stop at reasonable intervals for equally obvious (and pressing) reasons.

First, if you do stop at a rest area, try to do so when the place is busy and there are plenty of people around.

Next, endeavor to make your convenience stops off of the highway. Go to a service station, restaurant or convenience store.

Try to plan your trip so that you are not going to be forced to stop (for any reason) in rural or sparsely traveled areas where assistance may not be available if you need it.

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Lockin' Up

By Jake Jakubowski

If you'll look at the lower right-hand corner of the article, you'll see the "blurb" that promo'd my business. As

far as I was concerned writing these articles was like having an 8 or ten inch ad in the paper every week — without having to pay for it!

As I mentioned earlier, the nice thing about these articles was that they were fun to write and the “ad” at the end of the article was priceless, as far as I was concerned.

Garbage Trucks Target Of 'Stinking' Crime Wave

I would imagine there is nothing that one person has owned, grown, tamed, married, invented, built or bought, that another person has not coveted and tried to steal. Avarice, greed, lasciviousness, envy and just plain stupidity have at one time or the other, made thieves of kings, commoners, princes, presidents and ordinary people.

History, religion and mythology are replete with examples of the klepto-shennanigans of rulers, ruffians, republicans, democrats and dilettantes. Being caught with one's hand in the cookie

jar is an embarrassment that has been shared by the meek and the mighty alike. David stole Bathsheba from Uriah. Jason stole the golden fleece. Richard Nixon fleeced the Democratic Party, and an unknown person (or persons) clipped the city of New York for 10 garbage trucks!

Say, "What?"

No kidding! CNN Headline News reported recently that the department of sanitation for the city of New York, has lost 10 city garbage trucks to the kith or kin of Tommy and Tessie Thug! That's T-E-N! Each truck is valued at \$110,000; which amounts to a total of \$1.1 million! Hey! We're not talking trash here. That's serious money!

My immediate reaction was one of disbelief. I mean, who in their right minds would want to steal a garbage truck. Think about it! The city of New York has to pay over \$20,000 a year just to get a person to work on one of those suckers! If you've ever been up close to one on a hot day, you can understand why NYC has to pay such stiff salaries.

Then I thought that maybe some kids wanted to go joy riding. I dismissed that idea on the grounds that even if they were spaced out on the pop-of-the-day, the odor would get to them. One, maybe. Ten? Nah! Besides, we're not talking about well sprung comfortable riding, pickup trucks! These behemoths are fuel guzzling, rough riding, kidney

bruising, odoriferous, smoke belching, dirty trucks. Where's the joy in driving one...even for 20-plus grand a year?

The possibility also occurred to me that someone stole them to use in their own city or municipality. You know, an area that has been required to comply with federal mandates, but does not have a tax base of sufficient size to warrant spending 110 grand per copy.

I dismissed that one on the basis that even if a law enforcement officer between NYC, and say, Two Egg, Fla., did not become suspicious of a 10 garbage truck (used garbage trucks, at that) convoy headed south on I-95, Two Egg would have a difficult time explaining why their garbage trucks had "The City of New York, Department of Sanitation" emblazoned on their sides.

Of course, these trucks could have fallen prey to an organized ring of garbage truck chop shops. You know the type of operation I'm talking about. They take in stolen vehicles, strip them of salvagable parts and cut up the remainder for junk. The problem with that hypothesis is that the shop would have to be in a remote area or the health department would hear about it from the shop's neighbors!

Then again, maybe there is a used garbage truck lot somewhere that will buy these trucks no questions asked. Something on the order of: "Honest Abe's Used Garbage Trucks. Guaranteed low mileage and few fly specks. Buy here, pay here! These trucks are loaded!"

On the other hand, New York like other large cities in America, has been having trouble getting rid of their solid waste. You don't suppose the city loaded these trucks to capacity, drove them to Jersey and...Nah! They wouldn't do something like that...would they?

Oh, well. As has been said before: "Some people will steal anything, if it ain't nailed down". But, 10 garbage trucks? What a stinking thing to do!

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Lockin' Up

**By Jake
Jakubowski**

Remember, don't booger Momma!

I met Buck and Momma Sumpter (not their real last name) at a Dale Carnegie class in 1972. Buck was a real, honest-to-goodness cowboy, who had literally spent years "in the saddle." Momma, Buck's wife, was bigger than Buck and carried herself

like she just wouldn't "book no foolishness for no nobody." Which, as I later found out, was mostly true. However, Momma had a marvelous sense of humor and a soft spot for strays and hard luck stories.

At any rate, part of the Dale Carnegie training required each "student" to relate a story about something that had happened during their life that made a lasting impression on them, and what they had learned from the experience.

When Buck's turn came, he told the following story.

"We was workin' on a ranch in West Texas an' Momma an' me had a little house down the road from the ranch. One day, the fellas and I decided to go into town after we was finished work an' have us a beer or two.

"Well, we all met up at a place where the music was good an' the beer was cold an' fore I knew it, I'd had more beers than I could remember an' I could jest make out that the clock said it was midnight. Man! I

knew Momma was gonna be UN-HAP-PY! We didn't have a phone, an' I couldn't call her. So, I had another beer while I thought it out.

"An' while thinkin', I drunk enough of that good, cold beer to get a little confused about where I parked my car. Truth was, I just plain couldn't find it. Not wantin' to waste more time, I decided I could walk the four miles to the house, in an hour, easy. An' I figured it wouldn't hurt to carry a sixpack along. After all, it was a warm night.

"Bout the time I got close to the house, I had drunk three of the beers an' I saw a light still on. I knew Momma was waitin' up, an' I was in for it. So, real quite-like I snuck up to the house figurin' that if Momma had dozed off, I could slip in an' she'd never know, right? Wouldn't ya know it? I kin a peeked through the screen door an' Momma was bright-eyed an' readin'.

"I knew I couldn't sneak in, an' I thought about it a bit an' figured the only thing to do was have a little fun with Momma an' try to kid her into forgettin' I told her I'd be back earlier. So, I snuck real quite like to the window that Momma was sittin' by, jumped up real quick an' let out the godwafulest roar I could.

"Did that booger Momma? Man, let me tell you! Momma come outa that chair like the devil'd grabbed her by the ankle! She turnst towards the window with my 12-gauge on her hip... an' I knew boogerin' Momma weren't the best idea I'd ever had! I threw the last three beers straight up in the air an' fell back'ards to the ground yellin', 'Momma! (KAYBOOM!) It's me! (KAYBOOM!) Buck!'

"Momma's first shot took out the top of the window an' the three beers I threw in the air. Her second took out the screen in the bottom of the window. I'm lucky t' be here 'cause that lady knows how to use a shotgun! An' if I hadn't been jest plain, fallin' down drunk lucky, she'd a got me for sure!"

The instructor asked Buck what he had learned from the experience and Buck said, "I learned that you don't booger Momma!"

I remembered the foregoing the other day when I saw two bumper stickers on the same car. One said, "Fight Crime: Shoot Back!" and the other one said, "When Momma ain't happy, ain't nobody happy!" Then several other things popped into my mind.

More Americans than ever are buying guns for protection. More Americans than ever are taking self-defense classes. More Americans than ever are demanding their streets and neighborhoods back. More Americans than ever want suffer punishment for criminals.

These facts should send Tommy and Tessie Thug a very clear and forceful message: "Momma (America) ain't happy! So, don't booger Momma!"

R.L. "Jake" Jakubowski and his wife, Christie, are owners/operators of A.A. American Locksmith, which has offices in Henderson, Oxford, Wake Forest and Franklinton/Louisburg. Jake also is a technical and trade writer for a national locksmithing magazine and an editorial advisory board member for Crime Prevention Magazine.



Lockin' Up

By Jake Jakubowski

'Has Anybody Seen My Keys?'

The title of this article is a question that is surely asked thousands of times every day. Probably, "Has anybody seen my keys?" is actually a universal question that would come close to rivaling another universal question: "Hey, what's happenin'?"

If you ask someone the second question, the worst you risk is a possibly boring recitation of that person's problems with their love life, mother-in-law, teen-age off-spring or in-grown toe nail. Asking the first question (depending on where you have misplaced your keys) could be the start of major, and costly, problems.

For example, if you have "lost" your keys at work, while shopping, or at the beach, the possibility exists that someone "found" them when you layed them down for a moment to do something else. If that is the case, the "finder" did not pick them up because they like the sound keys make when they jingle. They picked them up because they believe they have a "use" for them. I'll give you

three guesses what that "use" will be. The last two guesses don't count.

O.K.. You lose your keys, they show up an hour, or two later, pretty much where you "lost" them. No problem! Right? The answer is an unqualified "Maybe!". If your keys disappeared anywhere but in your own house, then just "reappeared" out of nowhere, the probability of those "major, and costly problems" just became greater. Why?

Because, if someone took your keys with the intent of using them to your disadvantage, the time they were missing would have been sufficient for that person to have one, or more, of those keys duplicated. "Returning" the original keys so they could be "found" again, helps ease your fears.

Don't delude yourself into thinking that even if someone did have one or more of your keys duplicated they wouldn't know where you lived or what kind of car you're driving or where your spouse's office is. Wanna bet? A co-worker can easily garner that information. A "friend" probably already knows. A thief can easily find out.

If you do lose your keys, even if you find them again, common sense dictates that at the very minimum you should have the locks on your home re-keyed. That is have the "tumblers" (pins) changed to accept a new, and different key. Having the ignition switch and door locks on your car re-keyed would not be a

bad idea either. Yes, it will cost money to have it done. However, it will very likely be money well spent.

You might think that I am just trying to scare you into giving a locksmith, like myself, some of your hard-earned dollars. You are partly right. I am definitely trying very hard to scare you. To scare you into realizing that by not keeping your keys where others cannot get to them is important to your personal security.

And, if you don't believe that statistically you are in greater danger than ever of being the victim of a violent crime, then you have your head stuck in the sand! You must institute good common-sense safeguards for all your belongings, including your keys.

Otherwise, one night after "losing" your keys, you go to your car. Or, you let yourself into your home. Or, your spouse goes to their office to take care of some last-minute details. And a voice you don't want to hear whispers in your ear, "Guess what? I found your keys!"

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Lockin' Up

By Jake Jakubowski

'Processed' Oats And Cheap Locks

Back before the time of the automobile, when even city folk kept horses, there was a wealthy, old miser who went to the local feed store and tried to talk the owner into letting him sweep up the oats that had fallen to the floor in the feed room. The old man wanted to feed them to his horse.

The feed-store owner told the fellow that the "sweepin's" weren't fit to feed any animal, and he could sell him some, "nice, clean, fresh, oats fer about fifty cent' a bushel." The miser said the price was outrageous and the store owner was less than a gentleman, and turned to leave.

As the old miser was leaving the store, the owner called out to him and said: "Sir, if'n it's high-quality, fresh oats yer a-wantin', they're fifty cent' a bushel. How-some-ever, if'n ya don't mind doin' a bit a' shov'lin' there's a whole wagon-full out behind m'barn. I'll let ya have 'em fer two dollahs."

The miser came back to the counter, and slapped two silver dollars down. Before the store owner could pick them up, the miser, with a shrewd glint in his eye, put his hand over the money and asked if the oats

were moldy. "No, sir!" said the owner. "Well," growled the old man, "what's wrong with 'em? I know yer not sellin' me honest oats fer two dollahs, the wagon-full?"

With the corners of his mouth beginning to twitch, the store owner said: "Why, sir, there ain't nothin' wrong with 'em far's I know. Mah horse enjoyed 'em jes' fine when he ate 'em!"

The moral, of course, is: "If you want to buy fresh, clean, high-quality oats, you have to pay a fair price. If you want oats that have been through the horse, they're cheaper!" The same principal applies to just about everything that we buy in our lifetimes. We usually get what we pay for ... little more, and often less.

Since we're all aware a high price doesn't necessarily guarantee quality, and a cheap price rarely does, I'm amazed at the number of homes and businesses I go into that don't want to spend "fifty cent' a bushel" to buy adequate protection for their property. That is, they generally say something like: "Give me the cheapest deadbolt ya' got, someone tried to break-in last night, and ruined that high-dollar lock I bought the last time!"

Now, maybe it's because I might think a little differently from a lot of folks, but why put a cheap lock on the door after a burglary attempt, when the "high-dollar" lock kept the bad guys out? I mean, sure Tommy and Tessie Thug ruined the "high-dollar" lock, but they did not get in! The lock might be "dead," but the business owner, or homeowner, is alive and well! Now, they want "used oats"?



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I'm not foolish enough to deny that if the Thug family wants in bad enough, and they have enough time, talent and resources, they can gain entry to almost any structure, safe, vault or vehicle. However, on the average, Tommy and Tessie do not have the luxury of unlimited time and resources. Their preferred method of entry is to kick in, pry open, or beat down, a door.

No finesse ... just force. Get in, get the goodies, get out, and get away ... fast! It's that type of an attack a good quality lock was designed to prevent. It's also the type of attack "the cheapest lock ya' got" is most vulnerable to.

So, when you start looking at your personal safety needs, and the physical security of your home, or business, plan on spending for all the quality you can afford. In addition, you want to make sure the doors, door frames, and hinges are all in good shape, and that they fit and work properly. Ditto, for the windows and sliding glass doors.

I know there are a lot of folks out there who believe the adage: "Locks are for honest people!" That saying is called an oxymoron — you know, a contradiction in terms. Actually, that saying is a pile of oats that have already been through the horse!

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N.Y. Case SNOWS High Cost Of Crime

New York City. The Big Apple. The city where even a petty criminal can become a multi-millionaire. Now, I'm not talking about winning the lottery or being a drug lord, or Mafia king-pin (high sounding titles

for crooks, don't you think?), I'm talking about a bottom of the barrel scumbag, that made his living snatching purses and robbing nearly defenseless old people in the subway. Not

exactly Robin Hood, mind you.

At any rate, this schmuck grabs a purse from a lady, is seen by a cop, runs, but not fast enough to outrun the bullet the cop lets fly, is hit in the spine and winds up paralyzed. Having been shot (ballistically disadvantaged?) during the commission of a crime, one might think he got what he deserved, right? Not according to the New York courts where he chose to sue the NYPD for ending his criminal career.

Apparently, a jury of his "peers" (they had to be) decided that this was a case where a "socially deprived, behaviorally dysfunctional element" was the "victim" of loutish, uncaring and unwarranted police brutality. Brutality (in my opinion, it was simply poor marksmanship) that condemned this poor soul to a lifetime of pain and suffering. Never mind that the jerk was committing a crime, by some strange twist of logic(?) he somehow became the victim.

The jury felt so bad about what the NYPD did to this poor, unfortunate, "socially challenged", Neanderthal that they awarded him 4.3 million bucks! No kidding! Can you believe it? Believe it!

Wait! It gets even better! Talk about a criminal's (oops, that should read: "victim's") rights!

New York City decides that this award is a gross miscarriage of justice. They're not going to stand for such a disgusting display of jugheaded jurisprudence! No, sir! The City of New York appeals the lower court's decision. The New York Appellate Court, in effect, tells the city: "Pay the man!". Now, what?

Well, like anyone with a grievance at law, the city still has

recourse to the highest court in the land: The United States Supreme Court! There the city can present it's brief to nine venerable, clear thinking Justices who, without hesitation, decided that New York's case was not worthy of their august consideration! By doing so, the Supreme Court told the City of New York: "Pay the man!".

So, what we wind up with is a bungling crook who, with the help of a New York city cop that is a poor shot and a sharp attorney who hits the litigation bulls-eye, becomes a multi-millionaire. And, as I understand it (because the money is a damage award), the money is tax free! As a Russian comedian I once heard said about America: "What a country!"

What I would like to know is what happened to the criterion in the law that was called "The Reasonable Man Theory". Let's keep everyone happy and call it: "The Reasonable Person Theory". That theory is what the courts used to determine the rationale of acts committed by people.

That is, if someone broke a padlock, a gate, another locked door and then stuck their crowbar into the wiring of a high voltage transformer and were electrocuted, would that be something that a "reasonable person" would do? If that behavior would have been outside the scope of a "normal person's activities", the court would deny the validity of that individual's claim.

I guess we began to lose the reasonable person theory when we first began to perceive Tommy and Tessie Thug, not as crooks and crookettes, but as "behaviorally dysfunctional entities" whom we were obligated to "rehabilitate at all costs". To make them "socially functional beings, able to adapt to radically changing environments". You figure it out.

All I know is, in the case of the New York purse snatcher, the jury, the judge, the New York Appellate Court and the Supreme Court of the United States (as unreasonable as it sounds), in essence, paid a crook 4.3 million bucks to stop being a bad guy. Can we afford that kind of rehabilitation program?

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Lockin' Up
By Jake Jakubowski

But, I couldn't let you go without at least one sample of my poetic efforts! I guess I should keep my day job, huh? {;O)

12/18/92

'Benny, The Louse!'

'Twas the night before Christmas,
and all through the house,
Not a creature was stirring 'cept
Benny . . . The Louse!
He was skulking near the
stockings . .
 . hung with
such care.
Knowing the
kind of
goodies he'd
find there!

Cameras,
and jewel-
ery, all
nicely
wrapped.
While up in
their beds,
the whole
family
napped.

And Benny, the rat, gathered all he
could see.
He even took presents from 'neath
the tree!

A Walkman, a necklace, he dumped
in his sack . . .
That was bulging with TV, a train
set, and track.
Benny was happy to have made
such a big "score;"
But thought, would his bag, still fit
through the door?

Quietly he moved, not a sound did
he make,
He then went to the door, to escape
with his "take."
Suddenly! Outside! There arose
such a clatter!
He knew with deep dread what was
the matter.

Blue lights were flashing; stabbing
all through the night air!
Benny knew he was caught. Yes!
The cops were out there!
What Benny did not see, when he
broke in the door,
Was the new alarm protecting that
door!

The signal it sent, went to a box on
the wall . . .
That automatically made . . . a quick
phone call.



Lockin' Up

By Jake
Jakubowski

It called the company's monitoring
place,
And said: "Someone just invaded
our space!"

So, Benny/The Louse, caught
redhanded, in the act;
Was taken to jail, and relieved of his
pack.
The alarm that saved Christmas
from Ben . . . the louse!
Was just installed, with care, in that
house.

As Benny was quickly, driven down
to the jail . . .
St. Nick, (his reindeer and sleigh)
over Ben did sail,
And shouted these words, as he
passed out of sight,
"Merry Christmas, to all . . . to all
goodnight!"

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The Offbeat, Unusual, Different and Sometimes Bizarre

The following is an Op-ed piece that I wrote for the News and Observer (Raleigh, NC) after reading an article in the N&O about a Brazilian artist that had teamed up with a French bio-tech lab to produce a glow-in-the dark rabbit! The lab did some bio-engineering that caused the otherwise perfectly benign bunny to light up like a beacon when exposed to infrared light!

As you might expect there was a hue and cry from various animal rights organizations, concern expressed by environmentalists as to the potential hazard posed to normal wild rabbits if the glow-in-the-dark bunny escaped the lab and did what bunnies normally do when left to themselves in the woods!

The following piece appeared in a September, 2000 issue of the paper:

A Radiant New Industry.

In case you missed it, the News & Observer ran a story about a Brazilian artist and a French bio-tech lab that collaborated on splicing whatever genome or DNA it is that makes certain jelly fish glow, into a rabbit's genes.

Result: A rabbit that, when you shine an infrared light on it, glows in the dark! Like, everything glows. Its whiskers, its eyes, its teeth, tongue and cotton tail! Wow!

The article went on to say the artist was trying to make a statement and that there was quite a bit of negative feedback from geneticists, religious leaders, ethicists, scientists and a few other "cists".

Of course there were the concerns about science tampering with the divine design. Animal rights activists expressing alarm and dismay over the fact that the rabbit was not a willing participant and that no one could understand its pain and suffering. Ethicists and creationists were blowing their particular horns; and scientists — along with environmentalists — were expressing concerns about what would happen to the rabbit population should this glow-in-the-dark rabbit escape into the wild and breed with its *unenlightened* brethren.

The obvious answer to that last question is: given the proclivity of rabbits for practicing the art of reproduction, it probably wouldn't be long before the world would be overrun with bunnies that were lighting up the night around them. No hiding their light under a bushel for those guys!

Frankly, I'm not sure just how terrible that would be. Especially for hunters. I mean look how easy it would be to draw a bead on a bunny that glows brighter than the moon on a cloudless night!

I think all the naysayers are missing the boat on this one. I think the glow-in-the-dark bunny that the French lab created is the first example of a whole new technology that is on the cusp of revolutionizing a number of industries.

Smith and Wesson, Browning, Remington, Beretta, Colt and scores of other gun manufactures could equip their rifles with infrared scopes that would be guaranteed to illuminate whatever game the hunter is trying to bag. Think of it: Turkeys that glow green. Deer that glow red; bear that glow chartreuse and quail that flash like a neon sign! Every hunter in the country would want one of the new scopes.

Think about this. Glow-in-the-dark technology would be a boon to regional dish aficionados. If someone ordered "Maryland Soft Shell Crabs" from the menu and their scanner revealed a pinkish glow rather than foam green;

they would know those crabs did not come from the Chesapeake Bay! Bostonians would know instantly that the scrod they were eating was really Boston scrod and gourmands in New Orleans would know that the fuchsia fillets on their plates were genuine Mississippi catfish!

The potential is limitless. Not only could we have the family pet uniquely color-coded, scientists could splice infrared markers into the genetic structure of common household germs so we could determine how effective the latest sanitizing, household cleaner is. Carrying that concept a step further, eating at a fast food restaurant would be safer. We could use our hand-held scanners to determine if the table we were sitting at was clean and the food we ordered was nontoxic. No glowing microorganisms would mean that salmonella, and botulism cultures were nil.

The impact of this technology would be felt in virtually every profession, trade and industry in the world. Building trades would be needed to accommodate the demand for expanded and new research labs. More lawyers would be needed to handle the increase in lawsuits brought against the geneticists by animal rights groups. New regulatory agencies would have to be set up at all levels of government. Hollywood would remake movies like "The Blob" and call it "The Glowing Blob". Or the "Invasion of The Killer Tomatoes" would become "The Infrared Tomato Massacre"!

We could have a Glow-In-The-Dark Encyclopedia (Random House, of course!) that would rival a Sherwin-Williams color chart. Dusky Almond for eels. Cocoa for elk. Sandalwood for bison. Raspberry for French poodles. Eggshell for deodorizing or sanitizing cleaning agents. That encyclopedia would be a veritable smorgasbord of colorful critters, chromosomes, creatures and cleaning agents that would satisfy any appetite, taste, hygienic or decorating need!

This genetically altered, glow-in-the-dark, bunny might well be the genetic equivalent of the discovery of gold at Sutter's Mill in 1849. A small, artistically inspired, genetic procedure that could lead us down a glowing path to radiant prosperity. We might even have to change our National Anthem to: "*Glow, Little Glow Worm!*"

A professor at UNC wrote an Op-ed piece for the Raleigh News and Observer trying to assure everyone that the (then) current escalation in gas prices — when compared with 1980-something wages) — in actuality only represented a modest increase against our hourly earnings.

I took issue with his position and did my best to debunk his statistical averaging argument. The following article appeared in July of 2000.

Gas Prices and Barn Fires!

On a personal level, it is not necessarily a crisis when my neighbor's barn burns down. However, if my neighbor borrowed my tractor and parked it in that barn — then the fire, from my standpoint, definitely becomes a crisis!

Whether or not the current escalation of gasoline prices should be considered a crisis is dependent upon which end of the supply line you're on. Obviously the OPEC nations are enjoying the windfall profits that they are garnering as a result of last year's decision to decrease oil production and thereby increase profits.

On the other hand, the American consumer is anything but pleased when they see the price of gasoline climb sharply and steadily. That displeasure is intensified when the consumer realizes that the end of higher fuel prices is not the price they are currently paying. No amount

of rationalizing about gas being cheaper, when the current price is adjusted for inflation, then it was during the period from 1979 through 1991 is going to make the consumer any less dissatisfied with today's pump prices.

Arguing that on the "average", current gasoline prices represent, approximately, *only* ten percent of the "average" consumer's "average" wage rate sounds good statistically. In reality that premise is flawed because it does not take into account the severity of the impact of the gasoline price increase on lower waged consumers.

The fallacy lies in statistical averaging. If I make \$7.00 an hour and you make \$21.00 an hour, we average \$14.00 an hour each. And, by golly, gasoline at a dollar-forty-cents-a-gallon only represents ten percent of our average hourly wage! Factually, the cost of a gallon of gas represents 20% of my wage rate and only 6.66% of yours! For the wage earner making less than \$7.00 an hour, the cost-per-gallon of gasoline is, when measured against their wage rate, even higher — and more onerous.

Going beyond the wage earner, businesses from trucking outfits (corporate and independent alike), to retail operations and repair services also feel the 'pinch' of higher fuel prices. Truckers are paying nearly 50% more for fuel than they were a year ago. Since virtually everything that is sold in this country moves by truck, those higher fuel prices — which may be as much as several hundred dollars a week per truck —are going to be passed on.

Consequently, retailers will pay more for all delivered goods from foodstuffs to footballs. The washing machine repairman and the locksmith will pay more in fuel costs to provide the in-home, in-business services that make up their "wage rate".

It's easy to quote statistical averages to validate the contention that an escalation of petroleum prices will only

minimally impact the price we pay for food, clothing, furniture and the myriad items we buy every year. The reality of the matter is: every retail business, service provider, real estate agent, restaurant and convenience store has to maintain a minimum amount of profit to stay in business. If the portion of their cost of doing business that's related to petroleum prices is increased, it adversely affects their profit margins. Profit margins lower than the required minimum needed to stay in business chips away at their ability to maintain a viable position in their respective markets.

As the overall cost of doing business rises to reflect increased costs of petroleum products — and it will — the cost of pizzas, periodicals and preserves will escalate accordingly.

In turn, the consumer on the lower end of the "wage rate" scale will suffer the most. First, that consumer is forced to pay a disproportionate share of their earnings at the pump. Then they, like all consumers, will be forced to pay supply chain cost increases passed on in the form of higher prices for everything they buy — from apples to zippers — even if those increases are only a few cents per item.

As far as the statistics are concerned, Mark Twain said there are three kinds of lies: "Lies, damned lies and statistics". Do the current petroleum price increases truly constitute a crisis? Statistically and with today's pump prices adjusted for inflation, maybe, maybe not. From the standpoint of the impact of fuel costs on all consumers, and particularly, the lesser-paid consumer, most likely.

I guess it all depends on which barn your tractor's parked in. Yours — or the one that's on fire.

In November of 2004, I received a request to write an article for "American School and Hospital

Maintenance Magazine” about “doors”. You might find this one interesting, if for no other reason then its historical aspect. The photographs and illustrations, which AS&HM did not need, I plugged into this copy of the article so you folks could actually see the types of doors and hardware I’m writing about...

“At Last — The Door That Works!”



Somewhere, sometime — in the long ago past — our ancestors began to *build* dwellings rather than depend on caves, rocky overhangs and hollow trees for shelter from the

elements or marauding animals. Piling up stones for walls, or making bricks of clay and straw and using thatch for roofing were all, at the time, radical ideas that our forebears used to protect themselves from their enemies and things that go bump in the night.



There’s no doubt in my mind that it quickly became obvious to the herdsman who copied the birds and made his shelter out of sticks, mud and dried grass that, in order for the hut to be accessible, its design had to incorporate an opening to allow free access and egress.

A simple “hole” in one wall would suffice. At least until that herdsman recognized that his safety and the well-being of his family necessitated some sort of barrier that would help keep cretins and mothers-in-law at bay.

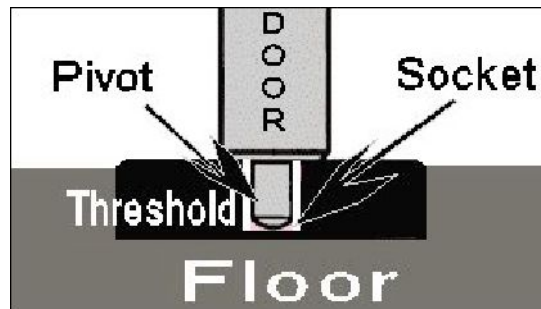
Most likely the first “door” was no more than an animal skin stuck or tied to the doorway to afford some measure of privacy and, at least, an illusion of safety. The flap that was caused by that innovation can only be speculated upon.

Nevertheless, it was the beginning of an architectural trend that would lead to saplings tied together with vines and covered with mud. It would lead to vertical wooden slabs (2 X 4's hadn't been invented, yet!) *nailed or pegged* to horizontal wooden slabs. It would lead to gates made from steel bands and mammoth timbers.

Almost all of which became designs that were *de rigueur* in the ancient world as door-making became an art unto itself. A world where a few sticks and a cowhide led our ancestors to build really humongous, intricately carved doors — some over 25' high — often overlaid with precious metals and jewels that have been found on temples and the palaces of the mighty.

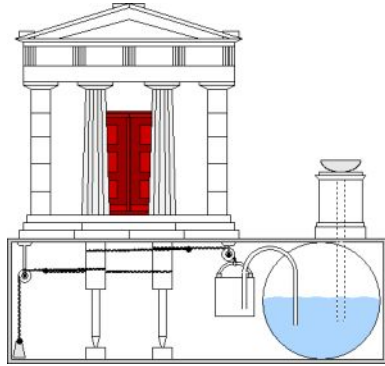
Enormous doors that were hinged by using massive pivots which consisted of pins in the bottom and top of the door, which in turn were set into sockets in

the headers and in the thresholds (The illustration to the right shows a probable scenario for these pivots which, depending on the area could have been stone, metal or a very hardwood). Doors so huge that an entire tree might be



cut, shaped, and finished to be used as a locking bar! Heavy, colossal, doors which were so delicately balanced — they could be easily opened by one or two men.

In the case of “Hero’s” doors to the left, a fire in the altar would heat air that would force its way down into the reservoir. The air would displace the water, which in turn would flow into the bucket. As the bucket filled, it would lower to the floor and activate the chains connecting the spindles. As the spindles turned, they would open the doors and raise the counterweight. Any of the congregants approaching the temple and seeing the doors open “automatically” would have to believe there were powerful spirits within the temple. These doors were invented sometime between 100 BC and 100 AD.



For the average citizen, who couldn't afford opulent overlays with, or without, encrustations of precious stones, doors were more plebian in construction and hung with simple wooden hinges that consisted of a wooden pin (often fashioned from a really hard wood) and a socket. One portion of the hinge, or pivot, was attached to the door and the other attached to the doorframe.

From an *anthropological* view-point, doors and door manufacturing no doubt started in what is commonly referred to as the *Cradle of Civilization* — the mid-Eastern countries that now occupy the land that was once known as Mesopotamia. From the pharaohs of Ancient Egypt to the emperors of Abyssinia (It was in the tomb of Karnac, discovered by the 19th Century French explorer *Denon* that the “*Egyptian Lock*” was found) doors and door hardware

progressed right along with the development of early temples, public buildings, castles and dwellings.

Of course, in arid climates such as one would find in the geographical boundaries where Babylonia, Sumeria and Niniveh flourished and folks like Abraham, and King Assurbarmipal lived and died; doors and door hardware could easily be made of basically wood construction and survive for centuries without rot or warp.

As door technology passed into Europe and more humid and intemperate climates, the construction methods of doors — of necessity — had to change. Simple wooden slabs nailed or pegged together could no longer be used because of their tendency to warp. A few branches tied together and smeared with mud was not much protection against sub-zero winds.



Although, from what I've read there were conical "tents" made like the one at the right which archeologists believe sheltered mankind in sites throughout Eastern and Central Europe during the Kostenki-Avdeevo Upper Paleolithic archaeological culture some 14,000 years ago. A type of structure that easily pre-dated the construction techniques found in the ancient land of Ur. Note that the "tent" does not appear to have a door as such. The opening was most likely covered by an animal skin. I find the resemblance between this ancient shelter and the Plains Indian's Teepee remarkable considering the thousands of years between the two cultures.



Regardless, radically new door techniques (Stiles and rails and panels put together with mortise and tenon joinery — as seen to the left) had to be adopted to combat the effects of moisture and extreme seasonal changes as the concept moved out of the dry and dusty climatic conditions of the Babylon and Mesopotamia.

By the 18th Century, the construction of doors had pretty much fallen into specific patterns that conformed to the application to which the door was subjected. You know the “form follows function” concept. Banks, churches and public buildings might have large, ornate doors of bronze or copper sheeting (See the right). While the private sector had less imposing doors and door hardware.



Although locking hardware began (By the mid-1800's and the development of Yale's pin tumbler locks.) making quantum leaps technologically, a door pretty much remained a door. It was still a *slab* that consisted of stiles, rails, panels, hinges and hardware. A slab which was intended to fit snugly into a matching wooden frame.

During the last quarter of the 19th Century, two totally unrelated events transpired that would — nearly a century later — forever change the concept of door design and manufacturing.

One event was the emergence of chemically altered *naturally occurring polymers*. Scientists began developing products that, although based on natural polymers, had a *synthetic element* added to them. The more famous and notable of these modified polymers were *vulcanized rubber*, *gun cotton* and *celluloid*. By 1909, *Bakelite* (Remember

Grandma's old black telephone?) came into being and was followed, in 1911, by the first totally synthetic fiber — *Rayon*!

Rayon was, at first, known as "*artificial silk*". It was first commercially marketed in the U.S. by a company called: *Avtex Fibers, Incorporated*. It was not until 1924 that the name *Rayon* was given to the product.

During the Second World War, the number and uses of synthetic fibers and polymers increased rapidly. Today, resins, polyurethanes, epoxies and other synthetics offer a spectrum of products and byproducts not dreamed of at the turn of the 20th Century. And, it is those newer, tougher, more durable and aesthetically pleasing materials that we find being used in contemporary door construction.

The second major event was the development, by Charles Martin Hall, in 1886, of a reduction process that brought the cost of aluminum down to the point that aluminum became a very inexpensive and popular metal. As a result of his discovery, Hall and his backers formed the *Pittsburgh Reduction Company*, which ultimately became *ALCOA*.

And, like synthetic polymers, aluminum production during World War II was co-opted by the government and all aluminum products were used for military applications. Aluminum as a plentiful, economical non-military construction material did not reach the public sector until after the Second World War.

By the mid-1990's these two seemingly disparate events came together and resulted in a hybrid, yet homogenous product known as a "component" door. A radical door concept built upon the best of the chemical, metallurgical and door engineering technologies. Incongruent technologies, that while widely separated industrially, were synergistic when melded to produce this remarkable new door.

A door with a heavy-duty sub-frame built of aluminum stiles and rails that utilize age-old *mortise and tenon* construction because mortise and tenon joints have, over the centuries, proven themselves to be the strongest and most durable types of joinery available in doors.



A door with an extra-wide top rail, designed to facilitate the secure attachment of ancillary hardware

such as closers, operators or coordinators.



A door with a heavy-duty, intermediate rail that helps reinforce the latch, or locking area of the door to offer greater stabilization for whatever lock preps are utilized on a particular door — even the new-style panic exit hardware that is “*built-in*” to the door as opposed to being “*hung on*” the door.

A door with an aluminum bottom rail that can be capped with an aluminum, or stainless edge cap, or the new automatic door bottom that automatically drops down to form a seal with the threshold every time the door is closed. A unique door component designed to *automatically rise*, into the bottom of the door, when the door is opened.

A door that has a core filled with high-density (Ten pound) foam to insulate and help stabilize the sub-frame and offer a solid, secure backing for the tough fiberglass outer *skin* of the door. A skin that is solid resin with pigmentation throughout its thickness to enable the door to remain virtually impervious to nicks cuts, gouges and physical abuse.

A door on which the edges are protected by aluminum or stainless steel trim caps that will protect the *skin* of the door from being inadvertently or intentionally damaged or *peeled*. The latch side is guarded by an adjustable astragal that allows vertical alignment of the door edge with the frame. The continuous hinge also uses the same unique screw adjustment that will allow the hinge to “custom” fit a frame that may be less than plumb.

To put it simply, this is a door that is, from a durability standpoint, virtually indestructible. A door that will with-stand the worst that Nature, vandals, the inept, incompetent and the unknowing can throw, jab, poke, prod, push and punish it with.

It is a door that will remain un-warped, unmarred, unbent, unbroken and un-defeated for years to come. A door that is tough enough to require little, or no, main-tenancy. A

door whose value is so evident its purchase and installation should be considered a capital improvement — not a maintenance expense.

So, what is this epitome of the door maker's art and why should I feel so strongly about it?

This remarkable door is known as an *FPR Door*. *FPR* stands for *Fiberglass Reinforced Polyester*. But from an installer's standpoint (Been there and done that) — these new FRP component doors are a dream to install and adjust. They're low-maintenance, high-strength and aesthetically pleasing doors. When hardware (Locks, closers, hinges, panic exit devices, astragals, coordinators or operators) has to be repaired, or adjusted, these doors allow those routine duties to be accomplished quickly and easily (Been there and done that, too!).

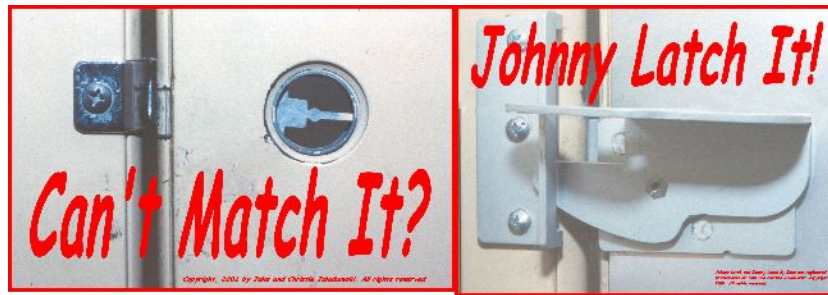
My business card carries the slogan: "*We Fix Doors!*" When it comes to **Markar Architectural Products' FRP Solution Door** I can't help but feel somewhat like the washing machine repairman of television fame — there's just not much that can happen to these doors that requires my expertise!

So, the next time you're looking for the solution to a chronic door problem: broken hinges, kicked in panels, warped hinges, racked stiles, twisted rails or tortured panic hardware ... look for a *Markar FRP solution door* ... from my standpoint it *is* the *only* solution that makes any sense!

Why?

Because it works!

Johnny Latch by Jake



Although *Johnny Latch by Jake*® is not something that I wrote, it is something that I invented, manufactured, wrote about, sold, installed and serviced. I ultimately sold the *Johnny Latch by Jake*® to Mike Merritt of Riverside, Iowa.

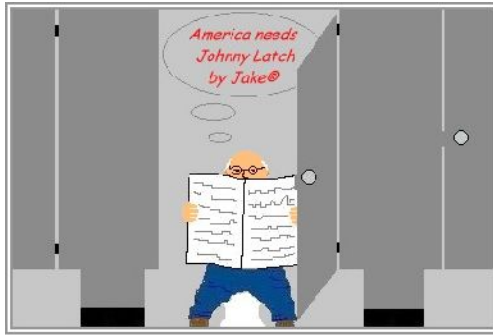
The *Johnny Latch by Jake*® came about as the result of not being able to find a product for a customer. The customer asked me to fix the toilet stall partition door so that it would lock.

I found that a lot of partition hardware was brand specific and that, for the most part, there was no such thing as a **universal, retrofitable, toilet stall latch** that would be ADA and Life Safety compliant.

I felt like I made it a special mission in life to find what I needed. I went to hardware shows and when I told the manufacturers what I needed; I actually had a few reps laugh at the concept.

You are probably aware that a toilet stall partition door is subject to the same ADA and Life Safety Code mandates as any other door in a given building. Unfortunately, if you didn't know the brand of partition hardware you were dealing with, you couldn't find the proper hardware for the door. To complicate matters, the partition doors, as a rule do not have a manufacturers name or trademark stamped on them. It

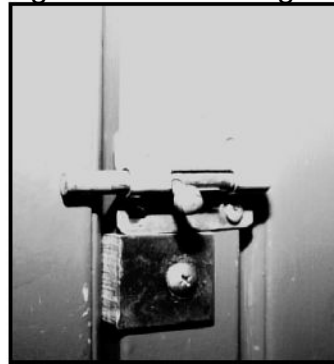
there's a name anywhere, it is usually on the latching mechanism and *that's the part that is most often missing!*



Anyway, I got the brilliant idea that what America, and in particular, the toilet door industry, needed was a universal, retrofitable toilet stall latch.

To that end (NO! *That is not a pun!*) I spent a lot of time thinking about ways to make America's toilet stall doors more secure. The illustration at the top left on the next page: was the opening page on my first web site for *Johnny Latch by Jake*. The door to the stall was closed when the screen first came up and then it would swing open, revealing the dude reading his newspaper.

The most common "fix" for a broken toilet stall latch (until I introduced *Johnny Latch by Jake*) was to simply put a slide bolt (See the photo-graph below and to the right) or a hook and eye on the door.



I looked at the problem from all sides (including the inside of the stalls) and kept thinking things like: "*Well, it would have to be easy to use*" and then try to figure the simplest design that could be utilized by physically challenged folks that need to use the facilities.

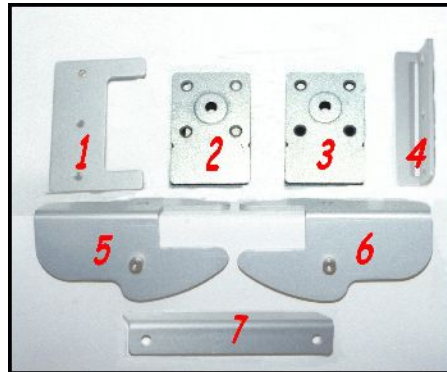
Then, since I spent an awful lot of "windshield time" traveling in my van around my service area (about and eighty mile radius around Oxford) while keeping my customers happy—I kept imagining what would ultimately become the *Johnny Latch by Jake*, would look like.

I was always “building” the latch in my mind and figuring out ways to make the design comply with the ADA and Life Safety Codes. I would think, “Gee, *it needs to be easy to use by someone who can’t use their hands very well.*” Or, I’d think: “*The latch has to be big enough to cover up the holes left when the old latch “fell” off of the door.*” I solved that particular problem by coming up with an *Adapter Plate*; which was no more than two pieces of flat aluminum that could be placed over a factory prep and allow the *Johnny Latch* to be mounted on the door.

The latch would have to be operable from the outside. The latch would have to be able to “drop” away from the locked position and not into it. The latch would have to be sturdy and manufactured to withstand abusive and prolonged use (since I wanted to guarantee it for life!). Anyway, over the next year, or so, I kept designing and redesigning the *Johnny Latch by Jake* in my head.

When I thought I had it worked out, I enlisted the aid of a friend who has a shop that builds *clean rooms for the drug and chemical industry* out of high-density polypropylene. He has a Cad machine that’s hooked directly to his cutter for the polypro stuff he makes.

I sat down with his cad operator and within three hours (no kidding) we had all the parts and pieces designed. The next step was to make the parts out of polypropylene and see how it all fit together.

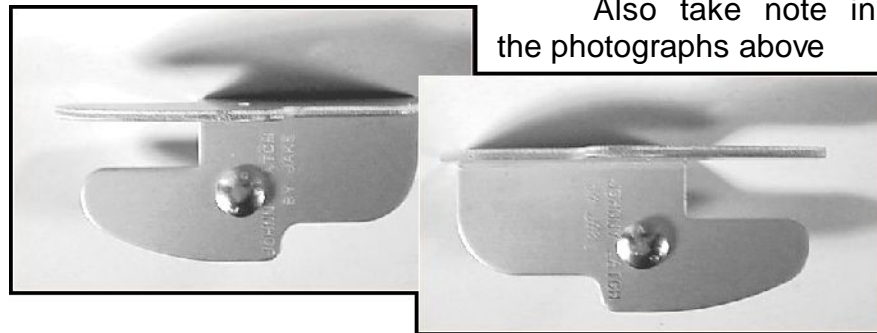


After I determined we had all the parts and pieces I needed and that they would all fit in and work together, I ordered the dies made, and had an aluminum fabricating

shop stamp out my first prototypes. Originally, the “kit” has two latches (a left and a right) with the “spindle” embedded in each latch (As can be seen in the photograph to the right.).

I redesigned the latch so that a 1/4” X 20 carriage bolt could be used for the spindle. Simply tap the shoulder (actually it took a good solid whack with a framing hammer!) of the carriage bolt into the proper side of the latch to match the handing of the door. That eliminated one piece from the “kit”.

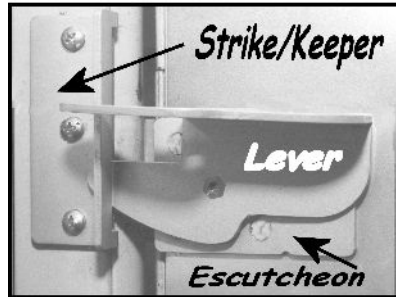
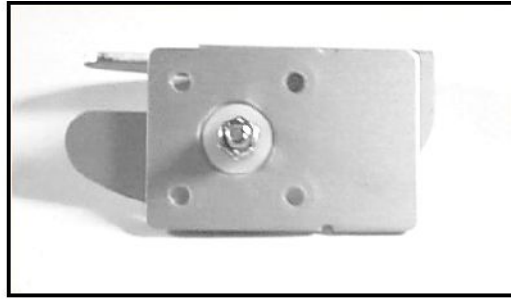
The two photographs, below show the redesigned latch as a non-handed latch.



how the “tail” of the latch is solid and that the carriage bolt is off-center. That was designed into the latch to “weight” the latch so it would fall open when the stall was unoccupied, thereby never necessitating overriding the latch from the front; although the latch can be opened from the front in an emergency.

The photograph, to the right shows the escutcheon attached to the latch with a nylon washer and a *self-locking nut*.

You can see in the photograph how the washer “nests” into a depression in the escutcheon. That was done so that when the latch was assembled to the escutcheon, and installed on the door, the washer would be able to move and not become bound against the face of the door.



The photograph to the left shows the *inside* of the latch, escutcheon and the strike, or keeper, on a partition door.

The installation of the *Johnny Latch* was designed from an installer’s (mine) point of view.

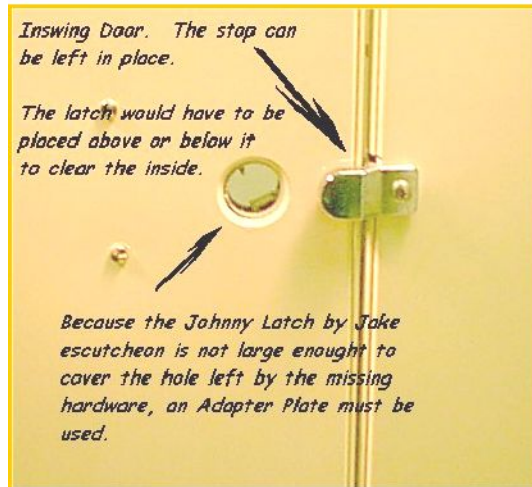
I used double face carpet tape to make each part self-templating and made sure that all the parts and pieces and screws and brackets *matched* their counterparts.

For instance, in the photograph to the right, the strike/keeper and the *INSWING STOP* are being mounted with through bolts which mate the two pieces. If you look at the photograph, above and to the left, you can see the inside of this install.

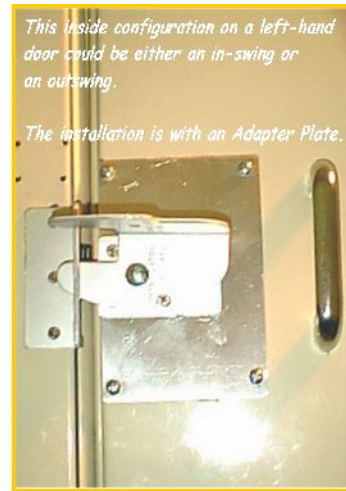


In the photograph to the left, the latch and escutcheon are being attached to the inside of an *in-swing* door. The caption on the photograph is a miss

The photograph, below and to the left, shows the project before we installed the *Johnny Latch by Jake*. Although the in-swing stop could have been left in place, it was removed so the full installation could be better illustrated. The photograph below and to the right shows the finished application from the outside



The photograph on the right, shows the completed *Johnny Latch by Jake©* installation from the inside of the door.



For more information and distributors of Johnny Latch by Jake© contact:

***Mike Merritt
P. O. Box K
Riverside, IA 52327***

***Or call him at: 319-330-9185
loxmout@mchsi.com***

Book Previews

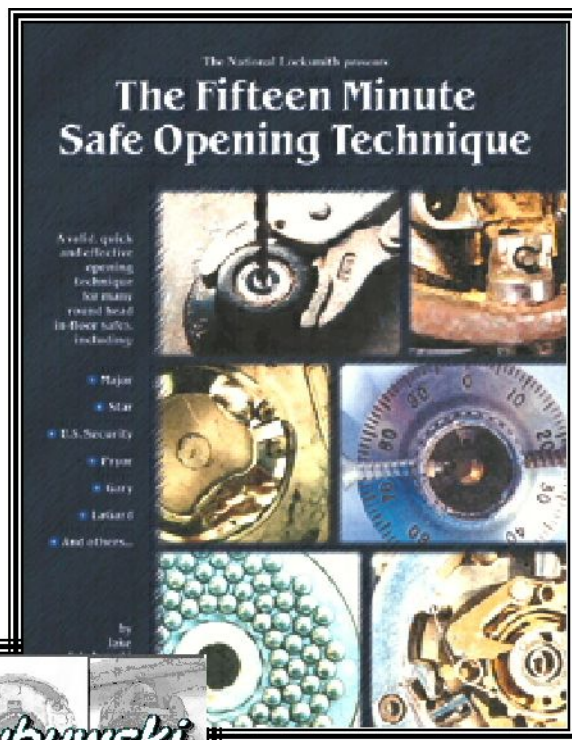
Eventually, my writing led me into writing trade-related books and in 2001, I produced my *first* full-blown book—***“The Fifteen Minute Safe Opening Technique”***. In 2006, I finished ***“The Fifteen Minute Simplex Install and Other Neat Stuff!”***

With ten other titles (besides ***“Pure Jake: The Book!”*** Which you are reading.) to my credit: including ***“Aluminum Stile Door Service and Repair”***, I’m in the process of writing several more. One will be titled: ***“Total Door Service and Repair”***. That book will, like the aluminum stile book, show installs, hardware, trouble-shooting techniques and a whole lot of information on hollow metal, wood, composite and FRP doors.

Below, and on the next page, are the covers of all my books currently in print. In the next several pages, I will be giving you a “preview” of each of those books, their retail price and how and where to order them:

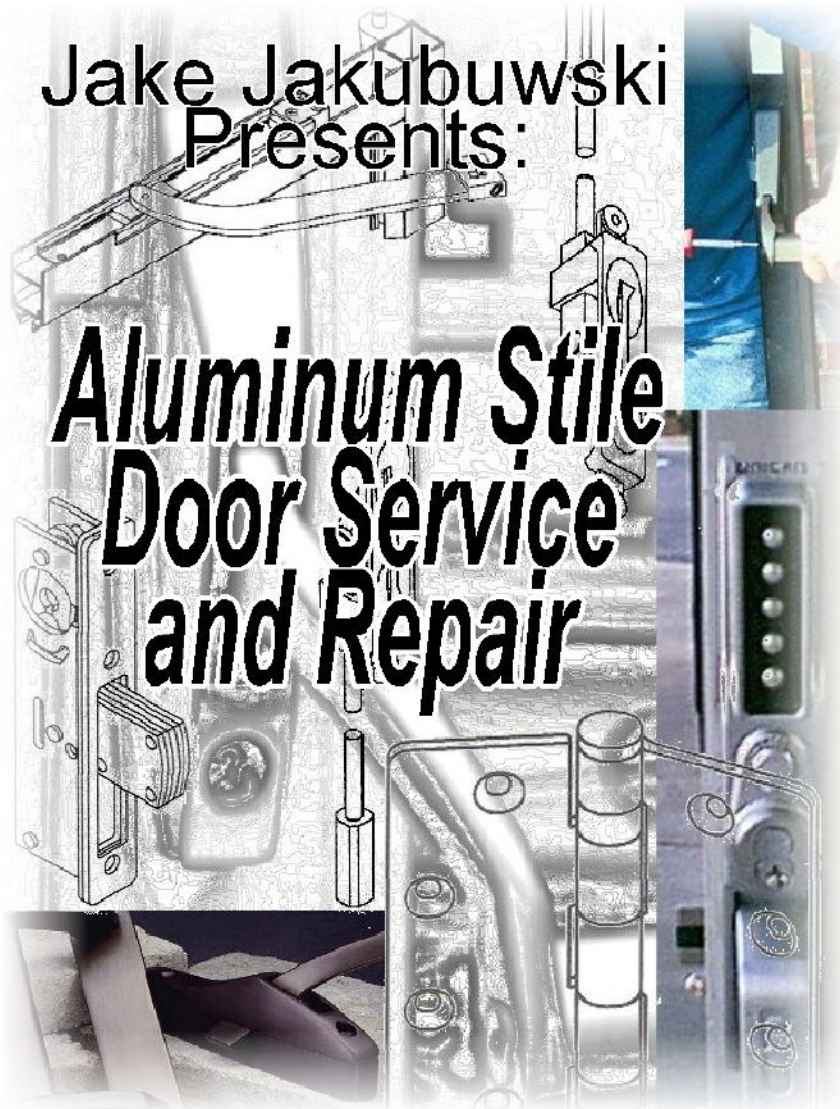


Over the next few pages, you will have the chance to preview the content of the books that I have written. You can order the books direct from me or your favorite supplier.

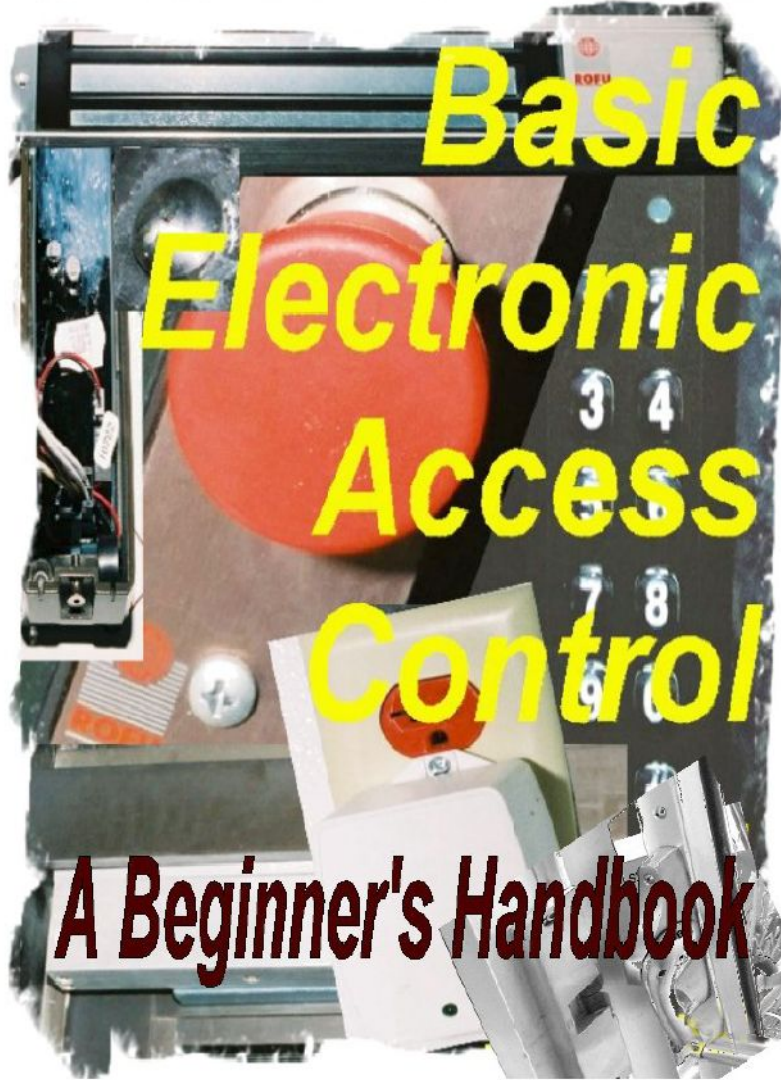


Jake Jakubowski
Presents:

Aluminum Stile Door Service and Repair



Jake Jakubowski Presents:



A Beginner's Handbook

Jake Jakubowski Presents..

TOTAL DOOR SERVICE AND REPAIR

*Volume One:
The Basics...*



*If for any reason, you cannot obtain the title you want
from one of the above distributors email me at:*
Jake@purejake.com

The following excerpts are from my "Aluminum Stile Door Service and Repair" book. With 423 pages and 753 photographs and illustrations, this book is the definitive book in the aluminum stile door and storefront industry. In the print version the suggested Retail Price was: \$199.00.

Having gone "GREEN" you can order the same book on CD (Complete and unabridged for only \$39.00 + \$8.00 shipping and handling.

Now you can order any of my books as eBooks that are instantly downloadable to your computer for only:

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www.purejake.com/books.html

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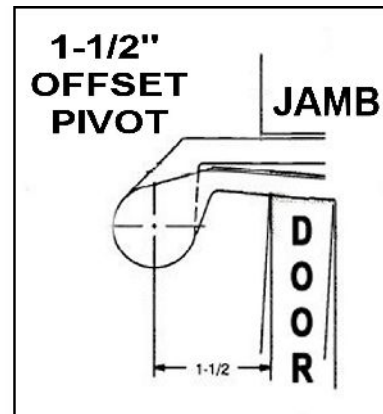
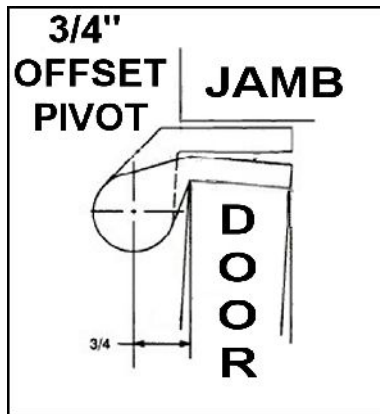
www.purejake.com/newsletter.html

Now check out the preview for the Aluminum Stile Door Service and Repair Book.

Section One: Pivots

With respect to storefront doors, and with regard to the pivot hinges that are so commonly used by the manufactures of these doors, the proper term is "offset pivots" (With the exception of "Center Hung" doors). Depending on the manufacturer the aluminum stile door, offset pivots are configured with varying offsets. They are also made for 1/8" recessed aluminum stile doors, as well as "flush" doors.

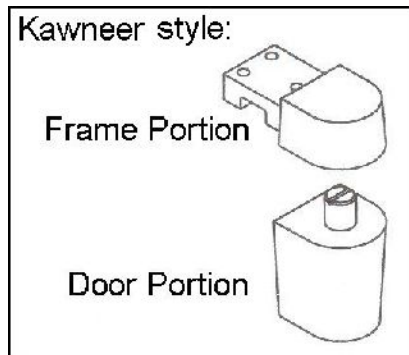
If you're dealing with medium and wide stile aluminum doors, you will often find that a concealed floor closer (Such as Rixson) as been utilized. In most applications the closer will have a 3/4" offset. In certain applications a 1-1/2" offset configuration will be encountered. The differences between the two floor-check offset pivots can be readily seen below.



Conventional, *narrow stile*, storefront doors also use a top and bottom pivot. There is, available if needed, an optional intermediate pivot for heavier doors, or doors that have inordinately high traffic volumes. When doors exceed 7' 6" in height, the intermediate pivot usually loses its *optional* status. However, the pivots used on narrow stile doors, unless a floor check is used, are radically different from the Rixson styles shown above.

Bottom pivots are floor mounted and may attach to the jamb or be secured directly to the floor or attached to the floor and threshold. Regardless of the bottom pivots "mounting" configuration, close attention must be paid to the condition of the floor to make sure that the frame and threshold are not only properly installed but are of the type and design specified. Any questions in the installers, or service technician's mind regarding this very critical area should be referred to the manufacturer. In the event the pivot hinges are being replaced by a continuous hinge, the primary concern of the service tech is to remove the bottom pivot in such a way that it will not interfere with the operation of the door (more on that later).

Improperly installed, or maintained, bottom offset pivots can be a major contributor to premature wear and door operational problems.

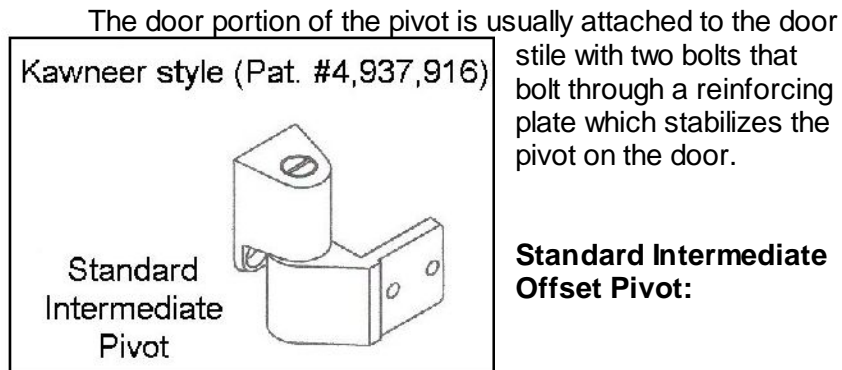


Top Offset Pivot:

The frame and door portions are both constructed of cast aluminum. The frame portion has a heavy duty bronze, self-lubricating bearing press fit into it and the door portion has (usually) a stainless steel pivot pin which rotates within the bearing.

The frame portion of the pivot is *mortised* into the frame. Most often the frame portion of the pivot “seats” in the *header* in such a manner as to prevent movement and to take advantage of the structural strength of the frame junction. The frame portion of the pivot usually has three threaded holes cut into the “block” to hold the pivot and block steady.

The detail of the various screw patterns can be seen in the different illustrations from several manufacturers. The shape, or profiles, of the individual pivots give a good indication of who manufactured those parts.



stile with two bolts that bolt through a reinforcing plate which stabilizes the pivot on the door.

Standard Intermediate Offset Pivot:

This pivot is also a die cast aluminum pivot that is not only load-bearing but *it is also*

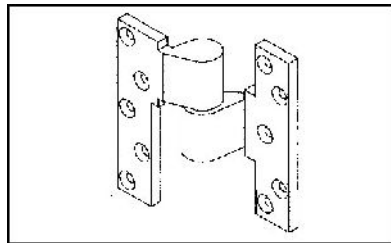
adjustable! The door portion is surface mounted to the door, containing two bosses which help the hinge resist rotational pressures and thrust loads. The frame portion is mortised with an integral, interlocking boss for stability.

Like the *Top Offset Pivot*, this pivot also carries a press fit Oilite, heavy walled bronze bearing and the pivot pin is made of stainless steel.

This pivot is used in concert with *Top Offset Pivots* and *Bottom Offset Pivots* to give the door added strength and stability. This type pivot is most often found on medium stile doors and wide stile doors. Most specifications suggest that an intermediate pivot be used on any aluminum stile door that exceeds 7' 6" in height. There are also some weight considerations and to be on the safe side, you should check with the individual door manufacturer for their particular specs.

A word of caution: The *Standard Intermediate Pivot* is not to be confused as a replacement for the top pivot and it is not recommended that they be used for any purpose than that for which they were intended.

In the event that an Intermediate Pivot is worn and cannot be replaced because of unavailability, then other repair, or rehabilitation, procedures and products should be considered.



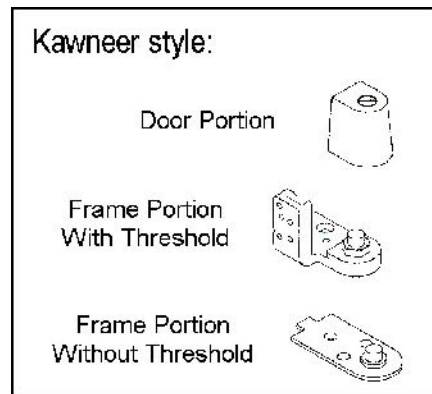
Such as using a continuous, full surface hinge as a viable alternative to trying to find brand specific hardware for these doors.

Optional Intermediate Offset Pivot:

This style of pivot is fully mortised into the door and the frame. It can readily be found on wood, steel, or aluminum doors.

This pivot has an offset of $\frac{3}{4}$ " from the face of the door. The bearing is self-lubricating and the pin is usually hardened steel.

Like the *Standard Intermediate Pivot*, this pivot is most often found on the larger stile doors. Again like the intermediate pivot, this pivot is recommended on any door that exceeds seven-and-a-half feet in height.



Bottom Offset Pivot:

The door portion of this pivot is made of cast aluminum with a ball-bearing raceway to accept the steel pivot pin. The door portion is attached to the door with two bolts that are positioned through a steel reinforcement plate and screw into the back of the door

portion of the pivot.

Although considered "adjustable" to maintain proper door clearance from the frame and insure proper horizontal door clearance both top and bottom I find that once the "lock nut" on the pivot corrodes, the door loses its adjustability and often ceases to function properly. That's when the maintenance problems begin.

The frame portion (with threshold) attaches securely to the frame and adequately stabilizes the door.

The frame portion (without threshold) usually has a base plate of stainless steel with a riveted, or swaged, stainless steel pivot pin. This particular configuration is fastened directly to the floor with a triangular fastening pattern to prevent the pivot plate from wiggling or moving out of alignment.

The drawings on the following page show various styles of offset pivot hinges that although brand specific (like the Kawneer, above); have offshore replacements available through a number of outlets, suppliers and distributors.

The excerpt above is from Book One and shows graphics of most of the hardware you will encounter and what it looks like....

The following excerpt (Beginning next page) is from Book Two where I will actually deal with installations and repair...this particular excerpt regards the installation of a continuous hinge. Other parts of the book will cover panic hardware, concealed rod devices, closers, locks, latches and much, much more...

Look for it on my site in late 2011...

I asked the store manager if they had to force the door shut when they closed and locked it. Yep!

Although I did not yet know what was causing the problem, I did know that forcing the door closed and then forcing the cylinder to turn would easily account for damage to the actuator's post, and the fact that the latch could no longer be operated with the key. I also knew there had to be a reason the stile was forced out of alignment.



Stepping outside, I closed the door to verify the misalignment and found the cause of the problem. About 10" up from the bottom of the door, on the hinge side; there was a common 4-1/2" butt — in bright brass! See photograph to the left (Arrow #2). Arrow #1 points out the location of the cylinder and the area where the door was "warped".

It seems that somewhere along the line, the bottom pivot gave out on the door and caused the door to drop away from the to pivot. The store manager, trying to solve an immediate problem and save some money, went down to the hardware store and bought the hinge, eight 1/4-20x4" bolts, washers and nuts and "repaired" the door.

Although the manager's intentions were good, he didn't realize that you can't use a mortise hinge to fix a door that has pivot hinges on it...especially if you don't remove the pivots first. If you look at the butt (See Arrow #2), you can see that it is placed flat against the jamb and the hinge-side stile of the door and bolted tight. That caused the door to bow because the top pivot was offset (3/4") and the difference in the offset pivot and the butt, caused the door to bind. When the door was opened, the bind became worse

(consequently the “bow” in the door I mentioned earlier). The binding (as the door was closed) forced the panic device to rub the latch-side jamb and that rubbing made it necessary to force the door closed when locking up.

In turn, undue strain was put on the panic device (because the bow in the stile of the door was most pronounced where the device mounted to the door) which in turn made the cylinder harder and harder to turn. Finally, the pressure needed to “unlock” the device caused the post that the actuator was on to crack and move out of alignment.

Interestingly, if the door had glass in it rather than Plexiglas, the glass would have shattered because of the severity of the door bind!

In the meantime, I worked on the old Jackson device to see if I could give it enough life to last a couple of days (I didn’t have one on the truck, or in the shop) while I rounded up the hardware I needed. The first photograph above shows my “jerry-rigged” quick fix) well enough that I was confident it would hold for a few days.



Once the mortise hinge (previously shown) was removed from the door, it was a simple matter to take the door down because the bottom, frame portion of the pivot (See photograph to the left) had long since broken.

With the bottom pivot (both the door and frame portion) in such bad condition, it was a simple matter to take the door down once the brass hinge had been removed. Normally, the top pivot has to be removed as shown in the two photographs below. It’s not a difficult job, just a matter of removing the three screws shown, “lifting the pivot up, slightly and then lifting the door

off the bottom pivot. The red arrow in the photograph to the right points to the “lip”.

The photograph to the left, below, shows the door



portion of the bottom pivot (See arrow). It, too, was broken. The inner Oil-lite bearing had been wallowed out and the door was dragging against the



threshold. Both the bottom pivot (door portion), and the top pivot, are held in place by either two bolts, which go through on the inside of the stile and can be accessed from the bottom and top of the stile. Or, two studs pressed into the pivots. studs pass through the face and are secured with nuts and lock washers the stile. The appropriate box-end or open-end wrench can be used to remove those bolts—or as the case may be.



The photograph to the right shows the (door portion) top pivot after removal. Note the drag marks on the left side of the pivot. Those marks were caused by the door being wracked, which caused the door and frame portion of the pivot to rub together. Even the pin is slightly bent from the pressure exerted on the door. Is it any wonder that the panic device failed to “lock”? Also note that if the pivot were on the door, the marks would be facing the latch side of the door, as the door was a right-hand reverse.



Again, the bolts that secure that pivot are easily accessed from the top end of the stile (See photograph to the left).

The next step is cutting the Select hinge to size. This is easily done with a hacksaw or Roto-Zip tool. Just measure the door, deduct about a half an inch from the measurement, mark the hinge accordingly (while it's still folded like it was in the box) and cut the excess off. Next remove the two security cover plates (the door side of the hinge has three small Allen screws that hold it to the hinge) and set them aside. Make sure the cut end of the hinge points to the top of the door.



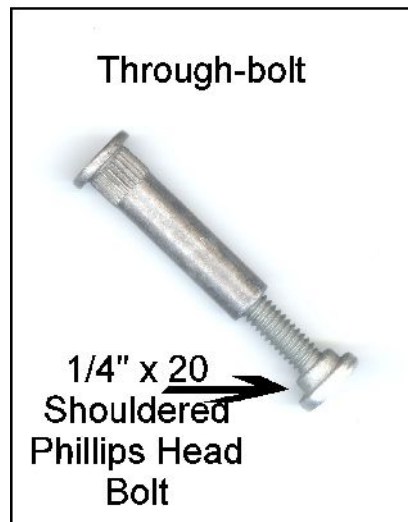
I use double faced carpet tape to hold the hinge in position on the edge of the door until a couple of self-drilling

screws can be used to secure the position of the hinge on the door.

The photograph to the right shows Kelly using a drill to set the screws that secure the hinge to the door prior to using the through bolts supplied with the hinge to secure the hinge to the door.



In this photograph (to the right), Kelly is through-drilling the hinge-side stile, using the mounted Select SL-57 as a template. These holes are drilled to 3/8" to accept sex bolts. Arrow #1 points to the hinge and Arrow #2 points to the security cover that goes on after the door is installed.



After the holes are drilled we simply insert a sex bolt in the hole, and insert a "shouldered" 1/4-20 flat-head Phillips screw (See photograph to the left) from the opposite side and tighten them up with the DeWalt cordless drill. The shoulder fits into the pre-drilled hole in the hinge, the flange (head) fits against the hinge. Once tightened, this arrangement prevents the hinge from "sliding" under the

bolt.

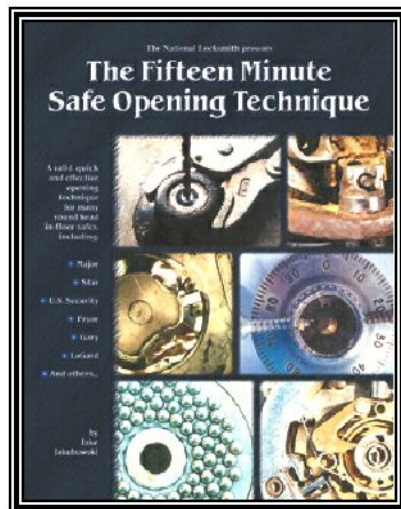
Select supplies all the bolts and screws that you need for the average installation. However, I deviate on aluminum stile doors and use 10-16x 1" Pan Head, self-drilling screws to secure the hinge to the frame.

In the photograph to the right, you can see the blind ends of the sex bolts securing the hinge to the door. Notice that the arrow is pointing to an area that does not have a sex bolt in it. On the opposite



(inside) stile the Jackson device is mounted and using a sex bolt in that area would interfere with the mounting of the Jackson 1096. I simply use a 10-16 pan head self-drilling screw just below the hole (it's countersunk) to secure the hinge in that area. Although it's not shown until later, the security cover for the door leaf of the hinge is slid into place, at this point and secured with the Allen screws provided.

[NOTE: The pre-prepped holes that are in the hinge, on the jamb side, are counter sunk. Never use a pan head screw, with its flat shoulder in a counter sunken prep, as it will allow the hinge to move under stress. As can be seen later, I use the pan heads in between the pre-prepped



“The Fifteen Minute Safe Opening

Technique” was the first definitive book to deal exclusively and specifically with removing round-head, lift-out doors from the tube. The processes that I discuss in the book are fast, effective and profitable. In this book, I show you five ways to open a Major, three ways to open a Star, multiple ways to open a LaGard as well as quick, fast ways to open Diebolds, Garys and others. Over a 140 pages with dozens upon dozens of brand specific photographs that show you “HOW-TO”. Suggested Retail Price in print version was: \$99.00.

The new “GREEN” instantly downloadable version will be only: \$9.99.. Check it out on my books page...

See selected excerpts beginning next page.

Chapter 4

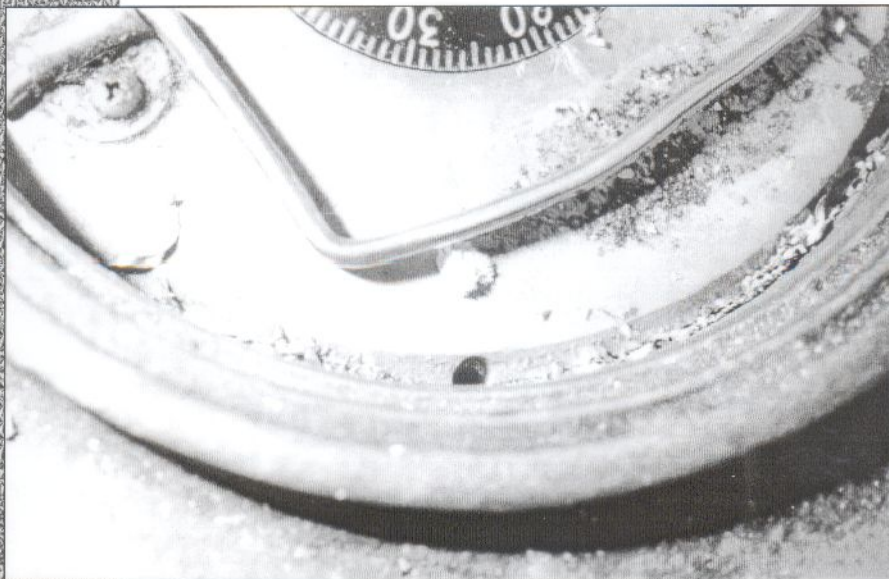
Opening AMSEC Round Heads

Of all the round head floor safes that you are going to be called upon to open, Major (and perhaps Gary) will more than likely be the most challenging from the standpoint of establishing drill points that will enable you to shear the bolts. The reason is twofold: On the Major the bolt location patterns are randomly set at the factory and the bolts are a full half-inch thick. That is, rather than having the 12 O'clock bolt on "0" on the dial, that bolt may be anywhere from 0 through 99 on the dial.

That fact might scare some of you, but the good news is that it doesn't actually matter. All that is necessary is for you to have the knowledge and ability to locate any one of the three bolts. Once you have discovered the location of the first bolt, the others can be easily determined.

With Major (and possibly a few others, on occasion) the first thing that you need to do to locate that first, all important, bolt position is to turn the head to see if it will rotate a full 360°. If it does, select a spot anywhere around the edge of the safe's head and drill a 1/8" hole straight down between the outer edge of the safe head and the inner edge of the safe tube (See photograph 18 and illustration 7).

Note: If the safe's handle is intact, or can re-attached, put a screwdriver through the handle and use a pair of Vise-Grips® or Robo-Grips® clamped to the edge of the safe's tube, to keep the head from spinning while drilling the eighth inch hole (See photograph 19).

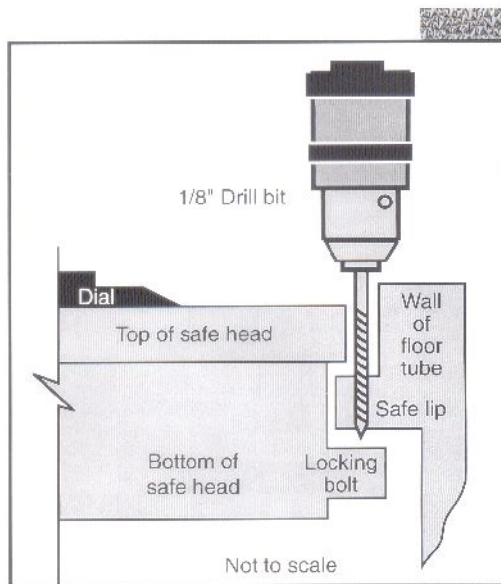


18. This shows hole drilled at edge of safe head and wall of safe to insert probe to determine bolt locations.

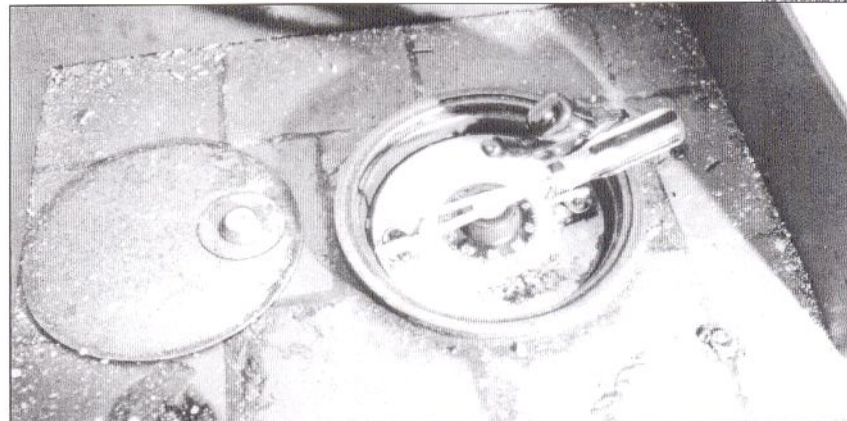
Don't be concerned about the small amount of material you remove from the edge of the head while drilling this hole. You are probably going to replace the head anyway. Even if you don't replace the head, the amount of material that you remove drilling this hole would be inconsequential. The important thing to remember is to drill the hole completely through the "lip" on the safe tube (again see *Illustration 7*).

Once you have drilled the hole completely through the lip of the tube, remove the drill and insert a piece of wire (See arrow in *photograph 20*) in the hole - make sure you keep the wire as straight (vertically as you can). Begin turning the safe head slowly to the right until you feel the bolt touch your wire probe. Mark that point on the safe head (See *photograph 21*). Now, lift the wire from the hole and rotate the head about one inch to the right; re-insert the wire and gently turn the head to the left until you feel the bolt touch your wire. Mark that spot on the safe head.

You have now established both the left and right sides of your first bolt. Continue to turn the head to the right until you feel the second bolt strike the wire (about thirty numbers on the dial). Mark that side of your second bolt. Lift out the wire, move the head about one inch to the right, re-insert the wire and gently turn the head



7. Illustrates how to drill a small hole between the outer edge of the safe's head and the inner wall of the safe's tube. When using this procedure, a small amount of material will be removed from both the head and the tube.



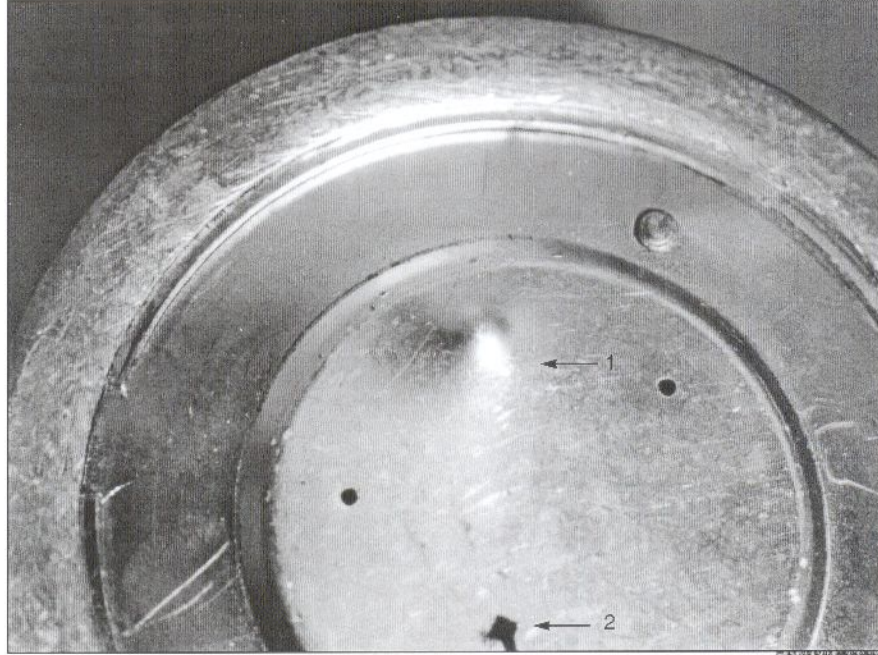
19. A pair of Vise-Grips® and a screw driver act as a stop to keep head from spinning when drilling the hole shown in *photograph 18*.

until you hit the ball bearing located on top of the Dog. (See *illustration 27*). You can easily tell when you have reached the hardened steel ball bearing because your drill's speed will increase noticeably. You can see, feel and hear that increase.

Next, use a 3/8" drill bit to open the hole up - down to the ball bearing - and then use a 5/32" pin punch and hammer to drive the hardened steel ball bearing and dog pin through the back cover plate. Sometimes, the pin will not go all the way through the back cover, but will distort the back cover (See arrow in *photograph 28*) sufficiently to allow the Dog Pin to clear the fence (or dog). The fact that the pin might not have been driven through the back cover plate will not necessarily create a problem for you - unless the back cover is distorted enough to allow the relocker to fire as mentioned on page XX.

If you look at *photograph 29*, you can see how the Dog Pin (see arrow) acts as a stop for the fence. Once you have removed the obstruction of the Dog Pin, use a light to look down through the hole and you should be able to see the front of the fence (see arrow #2, in *photograph 29*). Use an ice pick or straight awl - a small hook on the tip of either will help - to pull the fence as far under the hole as possible.

Pulling the fence as far as possible under the hole you have drilled will retract the bolts and allow you to lift the head out of the tube. That is, of course, unless the relocker has fired. Also, be aware that in the event the handle has been torn off the head, you should use two pair of Vise-Grips® or Robo-Grips® to grip the handle flanges or flange screws to lift the head from the tube. If you try to do it with only one pair, you might find the head binding in the tube. If that were to happen, you could wrongly assume that the relocker fired and then drill for the relocker. I'll leave it up to you to figure out how I found out about that little tip.



28. The 'dimple' that Arrow #1 points to is caused by the Dog Pin being driven down into the back cover. Arrow #2 points to the S&G change key hole which indicates this head is a Type III.

Chapter 6

Opening Star

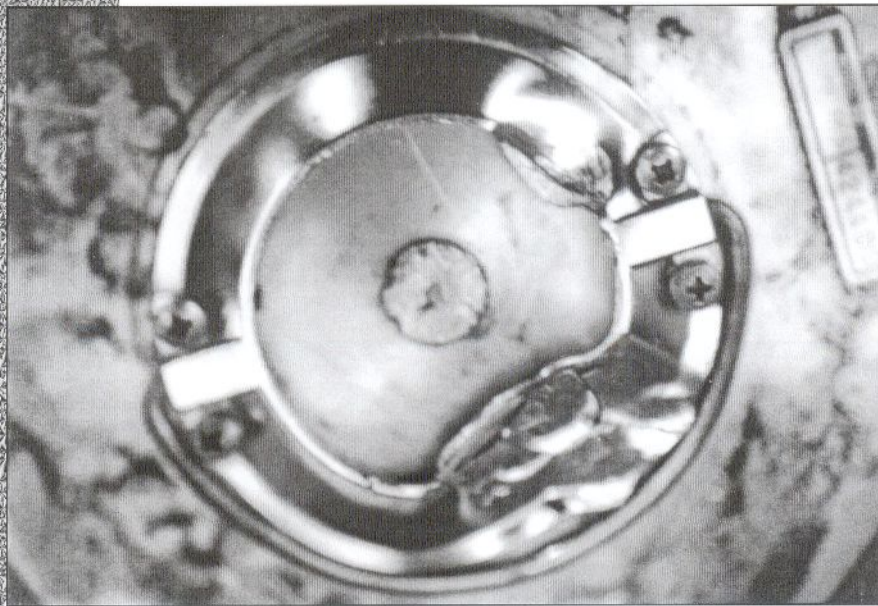
If opening Major and Gary round head, in-floor safes can be the most difficult openings using my FIFTEEN-MINUTE OPENING TECHNIQUE, then opening a Star has to be - with the possible exception of a Sentry - the easiest. Opening a star 7-1/2" round head, lift out door is a pretty straight forward procedure, if for no other reason than the diameter of the bolts (1/2") and the thickness of the head (1-11/16" not counting the dial or the wheel pack cover).

Even if Tommy and Tessie Thug have had a shot at the safe and destroyed the dial, knocked off the dial ring and tried to drive the spindle into the basement (See photograph 36) a Star opening is still a relatively simple procedure using the bolt shear method.

One reason is, unlike Major, the bolt pattern for a Star is fixed. It is the same on every head. The bolts on a Star are found at 4, 37, and 71 on the dial (if it is still there) with the drill point being 3-1/4" from the center of the spindle.

If the lock out problem is the result of a lost or forgotten combination, a jammed head, stuck wheel or any one of a dozen problems that can be caused by neglect or poor maintenance: opening these units can definitely be quick, simple and easy.

Just take one of the clear Drill Point locators that you had copied from the sample of page_ of this book, position it over the center of the spindle hole and make sure that the "0" radial is



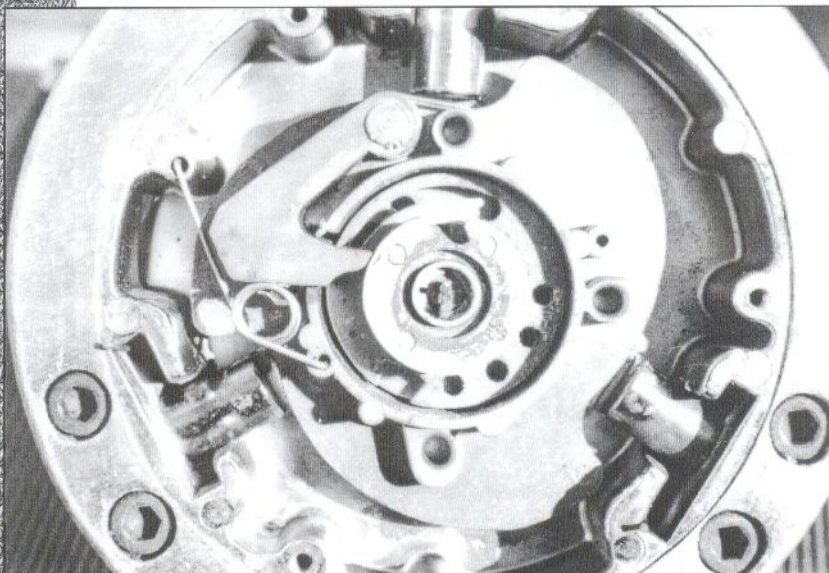
36. A burglarized Star head with the spindle beaten flat and the dial ring mutilated.

Opening LaGard, Pryor, In-A-Floor and Others

By grouping the above named safes together in this chapter, I do not intend to imply that they are identical units and each one is opened in exactly the same way as the others. However, according to the information that I have developed in working on some of these heads; and information that I received about the ones that I have not had first hand experience with, I believe that as a generalization, the information included in this chapter will be effective in opening each of the units that are listed in this chapter.

Basically, each of the units mentioned here has a steel-head, a cast aluminum body and a LaGard wheel pack, with a tri-bolt arrangement. The bolts on the units described are all at the 12 O'clock ("0"), 4 O'clock (33-1/2) and the 8 O'clock (66-2/3) position on the dial. The bolt diameters, bolt projections and head thicknesses are all within close tolerances of each other and are patterned on the LaGard style head. Any differences that I am aware of, I will point out as I go along.

So, let's look at the various safe heads named at the head of this chapter and see what the differences are and how those differences might affect the bolt shear technique that I suggested for use on the Major and Star heads in earlier chapters. Keep in mind that all the units that I discuss in this chapter are basically, or essentially, patterned after LaGard. See photograph 46.



46. Here's a typical LaGard tri-bolt arrangement that can be found on newer In-A-Floors, Pryors and of course, LaGards.

Chapter 10

The "When All Else Fails Opening Technique"

No matter how many times you perform a given task, there comes that one time, sooner or later, when absolutely nothing works the way it's supposed to. That phenomenon has something to do with the Law of Probability. In its simplest form, it means that if you do something enough times, walk down enough streets, drive along enough highways and open enough doors, at some point... something totally unexpected is going to happen.

When I experience a way-out-of-left-field type happening, I generally say that Murphy has "raised his ugly head". I've heard it called "Random Chance", "The Law of Averages" and "The Fickle Finger of Fate". You may even have your own name for the phenomenon. But... whatever you might call the experience, I'll bet you very quickly recognize it as your day begins to get a little less than serene.

It's the time when you drop your favorite screwdriver down the storm grate while working on a car door parked next to the curb. It's the time the follower slipped out of the cylinder you were pinning. When you bent over to pick it up, somebody opened the door and hit you in the head with the spindle that your just removed the knob from and laid on your work table, or the floor. Or, it's the time the real estate agent sent you out into the boonies to rekey a house and gave you poor directions. Remember how upset the lady was when she found you standing in her foyer after you picked the lock on her front door?

In safe work, Random Chance, The Fickle Finger of Fate, The Law of Probability or Murphy and Mother Nature can, and will, strike at the most inopportune time. It's when you do everything you've been taught to do and for whatever reason - nothing worked. When you're attempting to defeat a round head, lift-out door, you will often run into what Carl Cloud called "...a perplexing challenge". You can't identify the safe, the safe is installed between a walk-in cooler and a brick wall where you can hardly get your head in to see the dial, let alone tools to drill the thing! Or, the safe is installed under the counter in a large block of concrete and there is no room for you to get to the head with a drill.

You name it. If you work on lift-out doors, you will come across the exception almost as often as you will encounter the rule. It's nothing personal, it's just Nature's way of keeping us from getting bored!

However, in regardless of the seemingly spitefulness of Murphy and Company, there is good news for the safe technician! Even the toughest of these safes, will usually respond to at least one of the opening methods that you will find in this book. Including the heads that you can't identify. The ones the bungling burglars and burglarettes have pounded beyond recognition and even the safes that worked "yesterday" but not today. Even after the manager poured everything from floor soap to vegetable oil on/in it to get "the dial to turn".

In this chapter, I'm going to show you how to defeat the round, in-floor, lift-out round doors that refuse to respond to conventional opening techniques - even those lift outs that refuse to respond to the bolt shear method. I'm going to show you, as a last resort method, how to defeat the heads that can't be manipulated, coaxed, cussed or cajoled open.

The ones that after drilling the proper holes, scoping the right areas and transferring numbers; still won't allow the wheels to be probed to the drop-in or the bolts to the unlocked position. All you're going to need is the right information, a few basic tools, an attitude, a big hammer and a strong right arm.

With the foregoing safe opening arsenal at your disposal, you can dispose of virtually any tough to open safe head that you come across by side-punching the bolts. Side-punching a round, lift-out head works when other techniques fail. Further, I guarantee there will be occasions where side-punching will be your first choice for defeating a round head!

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Chapter 12

Understanding the Combination Lock

Before I get into this section, I want to thank Susan Gartner at LaGard for allowing me to use the following excerpts from the LaGard Technical Manual. Her cooperation makes my job a lot easier. Also, special thanks to Bob Sieveking for allowing me to use some of his illustrations from his book, "Modern Safe Opening".

Although this section deals nearly exclusively with LaGard combination locks, the principles, problems and solutions that are outlined in this chapter are applicable to Sargent and Greenleaf and other locks that are discussed in this book. In fact, several of the illustrations for this section show 'typical' LaGard and S&G components.

Also, I know that the experienced safe technician recognizes this material as being basic to the safe person's skills; it is offered here as an aid to the newcomer and as a memory jogger to the more experienced technician that may have "forgotten" a trick or two.

Although much of the following information may seem like very, very basic knowledge, it is knowledge that can be used to the reader's advantage - no matter how long they've been servicing safes.

Like I've said before, the more we know about our craft, the more competent technicians we become. Thanks to LaGard, I offer each of my readers some more valid, practical and useful information to help the novice and the expert alike.

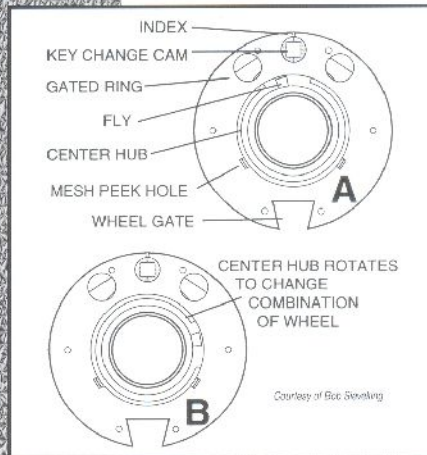


Illustration 38. 1. An inner wheel, which has a connection pin or drive peg, a toothed outer circumference, and a bearing groove to limit travel of the moveable fly; 2. The outer or gate wheel upon which is an integral spring arm with a toothed section and 3, the retaining ring, which holds inner and outer wheels together.

- Parts Description -

Wheels

The wheels are located in a wheel pack of three or four wheels, and rotate on a wheel post. Three-wheel locks are most common. A LaGard wheel consists of three parts: 1. An inner wheel, which has a connection pin or drive peg, a toothed outer circumference, and a bearing groove to limit travel of the moveable fly. 2. The outer or gate wheel upon which is an integral spring arm with a toothed section and 3, the retaining ring, which holds inner and outer wheels together. See *Illustration 38*.

In the same illustration, I have included Bob Sieveking's drawing of a typical S&G wheel with the various components notated.

Illustration 38a, shows a hand-change combination wheel. When working of round head, in-floor safes; it will not be unusual for you to find a lot of these older wheel packs still in service.

Moveable Flies

The moveable fly provides the connection between wheels, and is a part of every wheel. The moveable fly for the third wheel (closest to cam or driver) has a higher nose.

Spacer Washer

The spacer washer is stationary and prevents adjacent wheels from turning by friction. There is a spacer washer between each wheel.

And those pages were just a PREVIEW!



***“How To
Jumpstart Your
Locksmith
Business—or—
Ten***

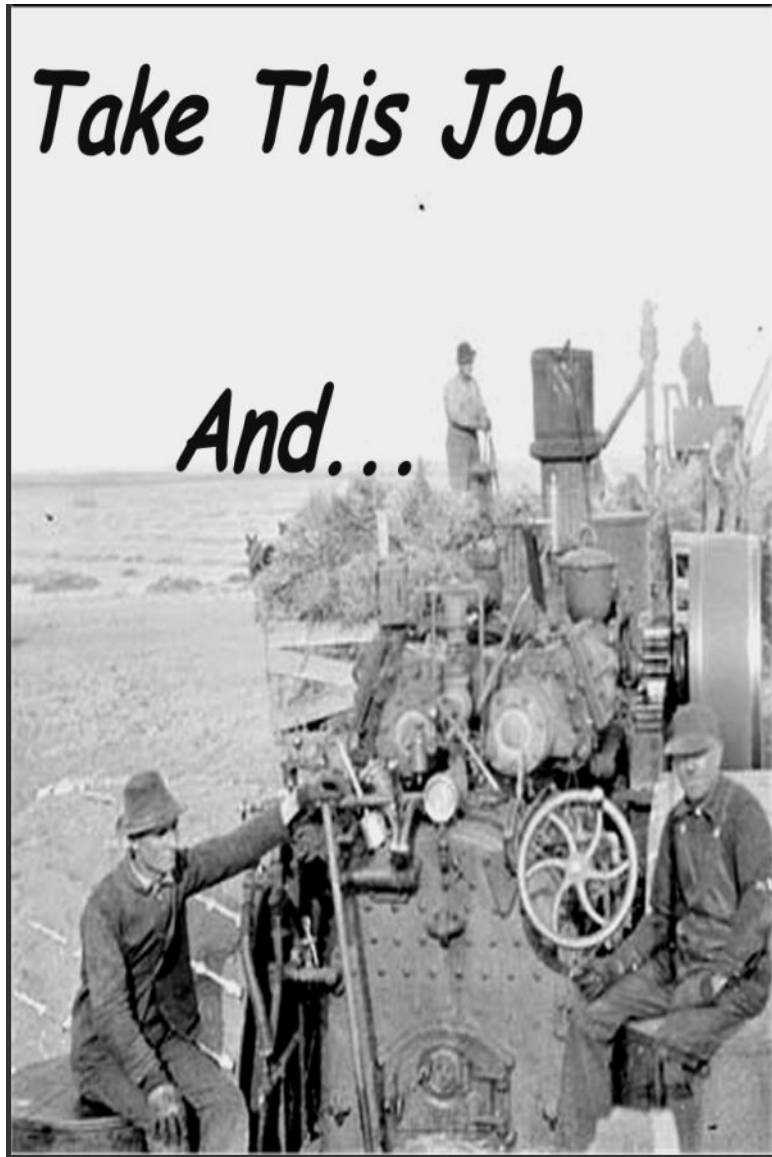
***Ways To Increase
Your Shekel
Intake!”*** contains
over a hundred pages of
good, solid information
on how to make your
business better.

From the time you decide to go out on your own until you learn how to “add” over six grand a year to your gross by simply suggesting one inexpensive item to your customers—this book will make you money.

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Take This Job

And...



"TAKE THIS JOB AND ..."

**There's probably not a man or woman alive that
hasn't wanted to utter these words to**

***their boss, supervisor or employer.
As a self-employed locksmith, you may on
occasion find it
necessary to tell a customer the same thing!***

Countless souls have ached to tell their foremen, supervisors and bosses to take their job and insert it where the sun doesn't shine. Then, they want to strike out on their own...joining the ranks of the self-employed. For some it works and for others, well, it's less than a satisfying experience.

No matter how attractive the idea of getting out from under the thumb of supervisors, bosses and the corporate politics that go hand-in-hand with many jobs, when you choose to work for yourself, you are likely to find that the self-employed life will not be hassle free.

Self-employment for many is a strange and unmapped territory. Since it is, for many beginners, uncharted territory, you're likely to hit an occasional bump and maybe even run into a gigantic problem or two. How well you deal with those problems and how successful you are as an independent businessperson will depend, for the most part, on how you handle yourself.

You will, no doubt about it, have to confront adversity and problems. Interestingly enough, much of the adversity you will encounter is going to come from the very people who you are trying to help. It

also seems that the larger the company you're dealing with, the more difficult these dealings can be. Why is that? It has to do with what I call The Goliath Syndrome.

The Goliath Syndrome takes place when you, the David in the Goliath equation, encounter the often gigantic corporate mentality in the form of a branch, zone, store, district or office manager who wants you to do a specific or series of specific tasks for Goliath, Inc. Because of their gargantuan (perceived or otherwise) corporate clout they feel that they can best dictate (hardware specifications aside) the how, what, why and wherefore of the project(s) they want you to accomplish.

The main thing for you to remember, when dealing with large corporate entities, is that although Mr. Goliath may provide "X" portion of your income, he also has his own (or his boss's) agenda in mind. Even though you are an independent business person, contractor, sub-contractor consultant or whatever; the Big Guy (or Gal) is frequently going to try to make you conform to their idea of what an out-source provider (that's a new term for a non-company employee) should say and do. They may even try, as one tried with me, tell you how to dress!

Let me explain. The maintenance director of a large facility called with an emergency. Since I had never serviced that facility before, I thought this might be an opportunity to "open" that account. I agreed to reschedule my morning to accommodate

their "emergency." The emergency was that Mr. Goliath's desk was locked and Mr. Goliath had left his keys at home.

Since it was the middle of the summer, I was in my typical summer "uniform." This consists of a pair of twill shorts, a polo shirt, Rebocks and white tube socks. As I was picking the lock, I overheard Mr. Goliath telling Mr. Maintenance Director, that he knew the company's dress code prohibited the wearing of shorts. He went on to say, "Tell that lock jockey, that if he expects to do any business with us in the future, he will dress like the rest of our employees!"

At that point, I had the desk drawer open and told Mr. Maintenance Director the job was completed. I also told him that he should tell Mr. Goliath (Hey! If the Big "G" was too good to talk to me directly, I figured to return the favor!), that this "lock jockey was not a Goliath employee and that I was appropriately dressed according to my company's dress code!" Yes, we still do service work for Goliath and yes; I still wear my shorts in the summertime!

In dealing with the Goliath's of this world, you may feel threatened or intimidated by the corporate "clout" of the customer and the sheer "power" of their distinguished company. I mean, the person you are dealing with can, and often does, have enormous resources of personnel, money and

materials at their disposal. All you have is you. This is a typical David and Goliath scenario.

Similar to the David of old, it is entirely up to you to determine the kind of relationship you are going to have with Goliath. You can allow yourself to be intimidated and subjugate yourself to Goliath or ... you can get out the sling!

Only you have the power to determine your position, state your expectations, defend your rights and demand what is, properly, yours. This includes respect and equitable treatment as an independent businessperson.

Because there are Goliath's (big and little) in this world, no matter how much you would like to appear, or actually be, Mr. Nice Guy, there are going to be times when you will come across as anything but. This means that there will be times you will be contentious, contumacious, angry, arrogant, smug, imperious, impetuous, impertinent, hardheaded, difficult, demanding, insolent, hard-hearted, impolite, and politically incorrect.

On the other hand, there will be many more times when you are going to be helpful, solicitous, cooperative, informative, competent, quick-witted, amenable, suave, daring, understanding, sympathetic, straightforward and concise. In other words: a thoroughly professional problem solver.

But! One thing you will (or should) never be is servile.

Yea, and verily, I say unto you: there will be times when you will be all of these things. There will be times when you will look a valuable, or potentially valuable, client in the eye and tell them "To get lost!" just as quickly as you will tell them, "No problem. We can handle that!".

If you are able to be all of these things when necessary; with a dash of élan, a modicum of enjoyment, a sense of your own fallibility, a willingness to be solely responsible for your own actions and no remorse whatsoever ... then, friend, you might just stand a pretty damn good chance of successfully running your own business.

**HOW TO EASILY ADD THOUSANDS OF
DOLLARS
TO YOUR PROFITS EVERY YEAR!
(BY SELLING AND INSTALLING JUST ONE ITEM
A WEEK.)**

It doesn't take high-dollar electronics or specialized hardware for you to

add significant amounts of money to your overall gross each year.

If you're willing to look for "alternatives" and let your customers

know what you can do for them, a couple of add on sales a day

can make you thousands of dollars a year!

I'm not blowing smoke!

I can show you how to add a minimum of \$2,000.00 per year to your gross profit by selling and installing just one item every week! And, that figure does not include your service call.

To make the prospect of selling and installing that one item even more attractive is the fact that you can sell one to just about every one of your commercial accounts that you do rekeys, etc. for. And, you can probably sell one to about fifty-percent of the residential customers you do work for. That translates into an item that you can easily sell to roughly seventy-five percent of your non-automotive customers.

It also means that you can probably sell two or more each week, take about fifteen minutes to install it and walk away from each installation with a minimum gross profit of \$42.95! And that is over

and above the money you made for the rekeying or door service you were originally called out to do.

If you did four rekeys or a couple of rekeys and two other jobs each day, you would—at least potentially—be able to sell three of these items (remember, you're already on the job site), which would give you an extra \$128.85 to add to your day's shekel intake. If you did that on the average of one day a week, you would increase your overall gross profit by an unbelievable **SIX THOUSAND, SEVEN HUNDRED DOLLARS AND TWENTY CENTS** a year! Of course, that's only \$558.35 a month. Or, about \$66.00 an hour; for less than nine hours labor a month!

There are, however, two qualifiers. One—you have to have a couple of these things on your truck at all times. Two—you have to take a couple of minutes to show it to your customer and let them see how it will increase their security and peace of mind. Beyond those two “catches”, this is a veritable gold mine waiting for you to dig around in!

Let me show you—literally—how easy this product is to sell and install. The only special tools you may not already have is a 2-3/8” hole saw and a 1-3/4” hole saw. Oh, yeah! Nearly forgot, you should have a tube of clear silicone sealer.

What is this moneymaking product? It's a Door Scope!

Read on...

The chances are pretty good that your favorite supplier already carries the Door Scope (See photograph #8). If not, you can get them through Southern Lock and other distributors around the country. The Door Scope is an interesting device that easily installs on wood or metal doors. It is designed to offer security on doors without visual monitoring. A door Scope can replace conventional “peep” holes with a wide angle viewer that allows the occupant of a building, apartment or home to “see” whoever is standing outside their door from as much as 7’ away from the inside of the door (See Illustration #1).

I’ve had customers tell me that looking through a Door Scope was like looking at a TV monitor, the view was so good.



Photograph #8

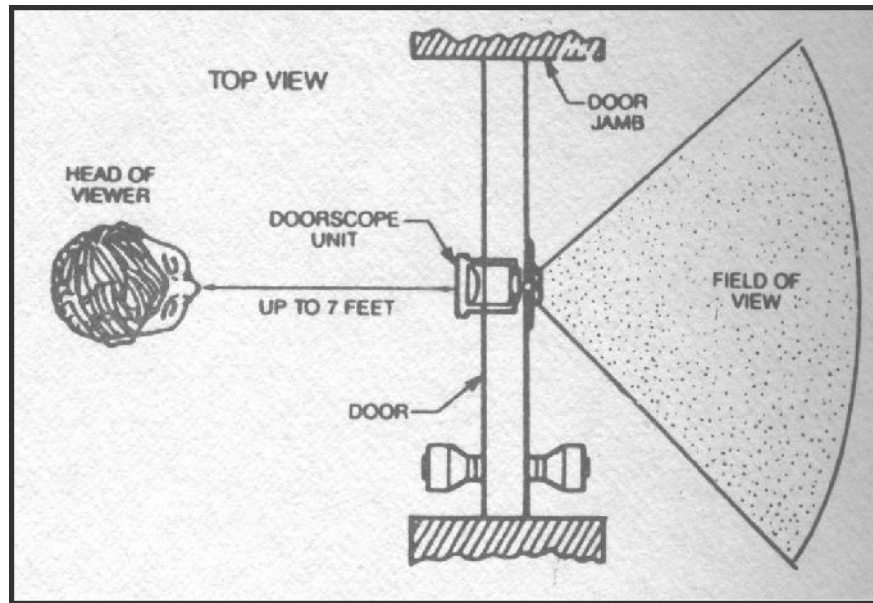
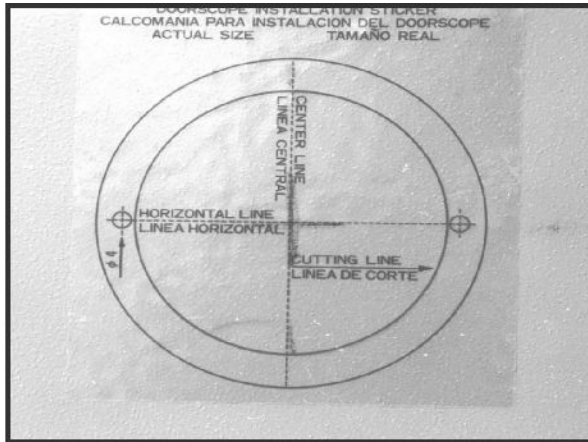


Illustration #1

Installing the Door Scope is fairly straightforward. Drill the holes, mount the scope and your on your way in under half an hour! It installs on a wood door is a snap and goes on a metal door easily enough. Here's a quick run through on an install and photographs to the door scope (and its view) on both wood and metal doors.

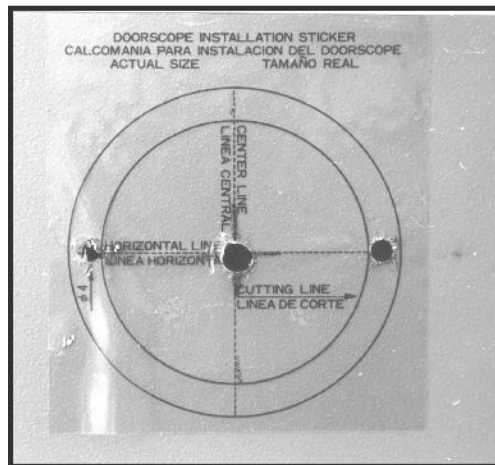
Actually, I find it just about equally easy to install the Door Scope on either metal or wooden doors.

The first thing to do is determine where you want to mount the Door Scope. I opt, of course, for the horizontal center-line and about 60" off the floor. This puts the



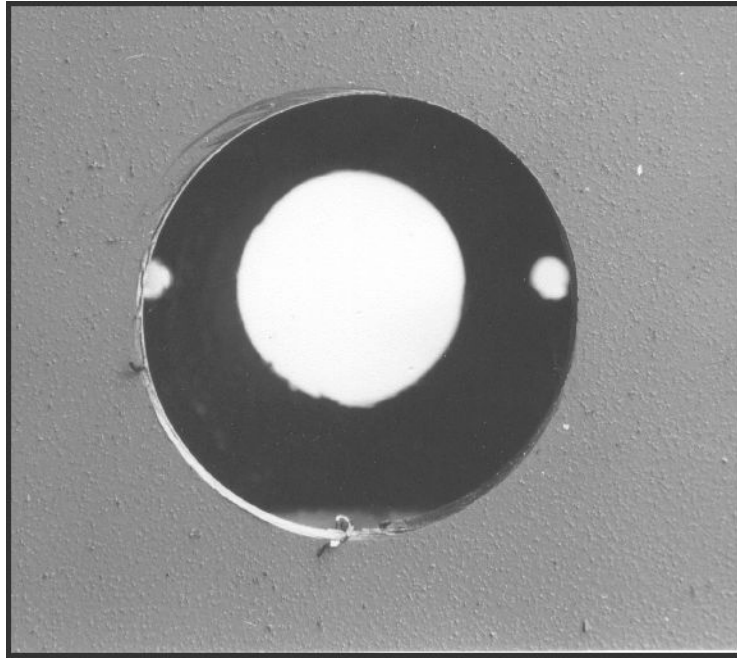
scope at a level where nearly everyone—regardless of height—can easily see outside from six, or seven feet away from the door.

Photograph #9



The next thing is to apply the sticky-backed template (See Photograph #9) on your vertical mark where it intersects with the horizontal centerline, and drill your first holes (See Photograph #10). Remember to drill the “center” hole (the $\frac{1}{4}$ ” one) completely through the door.

Photograph #11



Then you cut out the *outside* hole and using the $\frac{1}{4}$ " hole you drilled earlier as a guide, you cut the larger inside hole. Photograph #11, shows the completed holes.

Next, mount the outside escutcheon (as shown in photograph #12). I use a little bit of Silicone sealer around the edges of the hole and on the threads of the viewer to keep out the weather and secure the Door Scope from turning. Then attach the inner viewer, and again put a dab of Silicone on the threads and on the door where the adjustment "nut" tightens the viewer against the inside of the door.

Photograph #13, shows the completed installation on a steel door from the inside, looking out, and Photograph #14, shows the completed installation on a wooden door, also looking out.

Great view, huh?

Illustration #2 shows the cross-section of the Door Scope as it is mounted in a typical Installation. As you can see, it is a simple, straightforward and relatively easy install. As can be seen in Illustration #2 the Door Scope can be mounted on a door up to 2" thick.

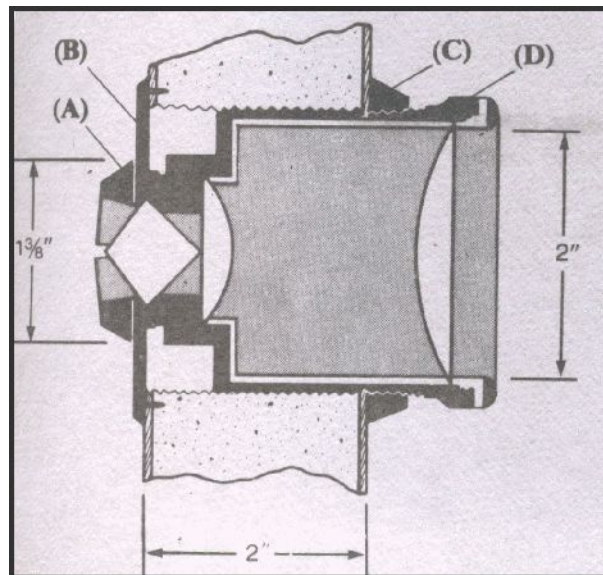


Illustration #2

Now, let's talk money. I know everyone has different charges for service calls, etc., but here's how I charge for the job you just saw. Door Scope,

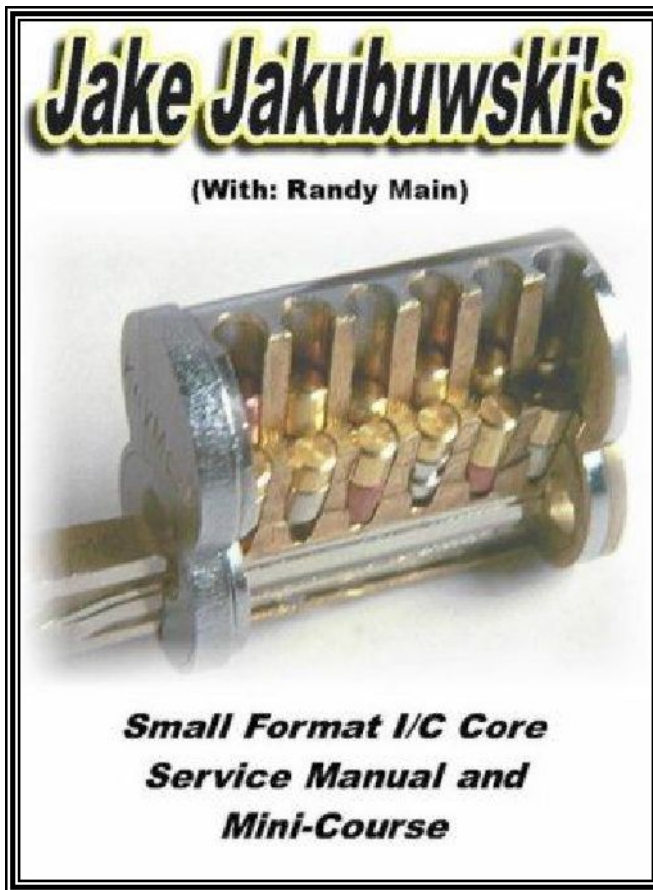
\$46.00, Installation: \$15.00, Service Call: \$45.00.
Total: \$106.00, plus sales tax! For fifteen minutes
work!

So, there you have it!

It's that easy to add thousands of dollars a
year to your overall gross profit without really
stretching for the sales. All you have to do is let
folks know what you can do and keep a couple of
these \$22 (Your approximate cost) items on your
van!

Now, is that easy, or what?

Okay, go make some extra money, this week!
Install a Door Scope, or two!



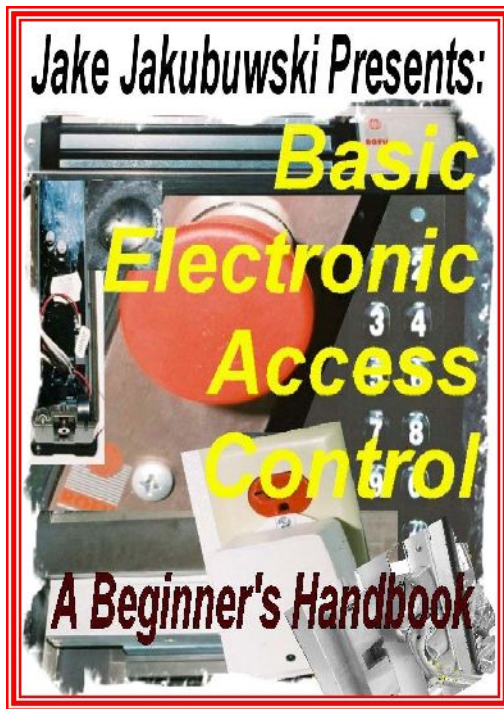
This manual was written with one idea in mind: to take the mystique out of Interchangeable core sales, service and repair.

I wrote it with the beginner and the seasoned 'smith (who wouldn't 'cause they

didn't know how) in mind.

This book, as a step-by-step, chamber-by-chamber, pin-by-pin is a great first step to opening up your own I/C service center and making some real bucks. If you can properly master key a regular cylinder, you can pin an Interchangeable core.

***Instantly downloadable eBook:
\$9.99***



I doubt there can be any question in anyone's mind about the importance that electronics is playing in the locksmith industry today.

It's no longer a case of "electronics" being "the future" of the locksmith industry—the future is here and so are electronics.

This book is designed to help the beginner to understand the how's whys and wherefores of Electronic Access Control.

This book does not deal with a lot of electrical formulas and wire size calculation—but it does show you how to layout a single door system, install it, wire it up and put some money in your pocket.

Steve Bright (former president of NCLA) and an instructor of EAC classes said that "everyone" that does EAC should have this book. He went on to say, "The book is like having Jake in your van with you; except it doesn't take up as much room and it doesn't eat!"

The excerpt beginning on the next page is the introduction to this book. Downloadable eBook price:

\$9.99

The VERY Basics of Electricity

Now, don't get excited! I'm not going to throw a whole lot of terminology and stuff about ohms and amps and voltage drops at you. I just want to cover some really basic ground so that you have, if you don't already, an elementary grasp of what you're dealing with when you're working with an electrical current.

Even today, folks don't really know what electricity is. Yet, the effects of electricity can be readily explained, and even predicted, if we're willing to make one assumption: That there exists a tiny particle of matter called an *electron*.

When we talk about electricity, what we are really talking about is the *flow* of *electrons* through a *wire* or other type of a conductor. That's cutting to the chase without getting bogged down in discussions of *atoms* and *molecules*, *nuclei*, *neutrons* and all that immeasurably complex, and technical, stuff that comprises the *Law of Physics*.

Fundamentally, when electrons *move*, things happen. The *entire Electron Theory* postulates that all electrical and electronic outcomes are the consequence of the *movement* of electrons from point-to-point. When those electrons move, they produce the electricity that allows us to light our lights, toast our bread, watch our televisions and install practical and secure *Electronic Access Control Systems*!

But what gets the electrons *excited* enough to *move*? After all, if electricity is the result of the movement of electrons, which have been *forced* from their orbits around the nucleus of an atom, something had to exert that force, right?

How about *energy*?

Okay, but what kind of energy?

We can generate *force or energy* (Or *Voltage*. $E=V$) to cause the movement of electrons in two ways: *by magnetism or chemically*. If we do it with magnetism (and that's all a large power plant really is — a series of magnets producing force to create energy to move electrons and thereby creating *AC electrical current*.

If we produce that force chemically, we use *Chemical Action* via either a dry cell or a wet cell battery. Chemically induced voltage produces *Direct Current*.

[Note: The exception to the above regarding Direct Current is when AC current is changed to DC current through the use of a diode or rectifier.]

Voltage is the energy that drives the electrons through a given conductor. It is that movement that produces electricity. Voltage is really a simplified term for *Electro-Motive Force* or EMF.

Notice, I said the electrons would be driven through a conductor? When it comes to *electricity, or the movement of electrons*; all materials are either a conductor or an insulator. Conductors are materials, which offer very little resistance to the flow of current (electricity), and insulators are materials, which offer high degrees of opposition to the flow of current.

Obviously, copper; aluminum, steel, water and iron are electric conductors and rubber, plastic, cloth and wood can be insulators. Of course it would be impractical to fill a rubber tube with water and use it to conduct electricity to a lock or magnet; in order to lock a door, but there is plenty of shielded copper wire available to do the job.

So if electricity is no more than the movement of electrons from one point (the power source) to another (the

lock) and back again; then the power source, the lock and the wiring along which those electrons move is called a circuit.

Basically, if you were an electron and you considered voltage a train — the power source would be your departure station and the red wire (+) would be your track. A switch would be an intermediate station, the locking device another intermediate station and the return to the power source via another “track” (-) your “train” would carry you along. As the electron, you board the Voltage Train and scoot along a conductive track until eventually; you wind up back at the departure station, but on another track. Every time the train stopped along the route, someone interrupted the journey (*the flow of current*) by “throwing” one of the switches.

As it applies to the circuits in this book, your Voltage Train took a long circuitous journey from your departure station (The Power Source), through the various stations (the switches) and back to the power source. That route is called a circuit. In order for a circuit to be complete, the electrons have to return to their starting point. If they don’t, the device will not work. In *this* circuit, the electrons can only travel one way.

The circuit that I’m illustrating in this booklet has all of its components in a *series*. The diagrams on page 22 and 37, will illustrate the wiring and the circuitry very well.

There are other considerations concerning *resistance* (The restricted flow of current through a given conductor), or the freedom of the movement of electrons. Resistance is predicated on the size wire used, the material of the wire, the length of the wire and the temperature.

Without going into a lot of heavy calculations and figuring, follow the device manufacturer recommendations regarding the wire size and type. With most single door

systems that are powered by Direct Current, 18 gauge wire should be *more than sufficient* for runs up to 200, plus feet.

Do not use telephone wire. It looks tacky and is not always reliable under various installation demands.

In the context of electric locks, electricity is simply a bunch of electrons running straight through a suitable conductor to operate a magnet or other locking device.

Simple though it may be; it is well to keep in mind that even small amounts of electricity, under the right conditions, can cause a lot of pain and physical damage. So observe all safety precautions and follow the instruction manual and accepted procedures.

The System Requirements

Although the system that I'm going to show you how to install in this booklet is in the same restaurant as that shown in *Basic Electronic Traffic Control*, the customer's needs and the system requirements generated by those needs are altogether different.

The door this system will be installed on is the *Driver's Door*. It is through this door that the delivery drivers enter and exit the building a couple of hundred times a day!

The primary consideration is how to get them all in, and out, without the use of keys, latches and other less secure means. With an electronic entry system (touch pad, etc.) each driver can be assigned (or choose, for that matter) their own personal code. If a driver leaves the job for any reason, management simply enters the driver's "User" number and deletes it. That driver's code is no longer valid.

So, for this door, we're going to install an IEI touch pad and controller, a Rofu magnetic lock, a transformer, and a single *REX* switch for driver egress and another *REX* switch with an ON/Off toggle switch similar to the one in the *Traffic Control* installation. We'll leave the Adams Rite MS1850 with a KEYMARK cylinder, intact. That's used to secure the door after hours.

By using the 1850 for after hour's security, management doesn't need to be concerned about employees returning during their off-times for whatever reasons. Only management carries keys to the door. The access control is used only during business hours for the convenience of the drivers and to keep the door secure against the simply curious or those who have mischief on their minds.

Again, I want to stress that this is another system that does not require heavy credentials or licensing to install. It is, basically, "Plug-and-Play". It is under 50VAC and will, in most jurisdictions, allow you to install it for your customer. Like always, it is best to check with your local fire marshal or electrical inspector to make sure that there are no specific restrictions in your locality that would prevent you from installing *EAC*.

As I mentioned, we used a Rofu magnet for this installation. We could have just as easily used an electric deadbolt, an electric strike, and a shear lock or something like Securitron's MGL, which is an electrified deadlatch for narrow stile doors.

In Chapter #10 titled "*A Few More Ideas*", I will do a quick overview of various locking mechanisms that can be utilized on narrow stile doors. In another booklet, I intend to cover using *EAC* on wood and hollow metal doors.

Although I am dealing with specific brands of products in this booklet, keep in mind that the information is relative to

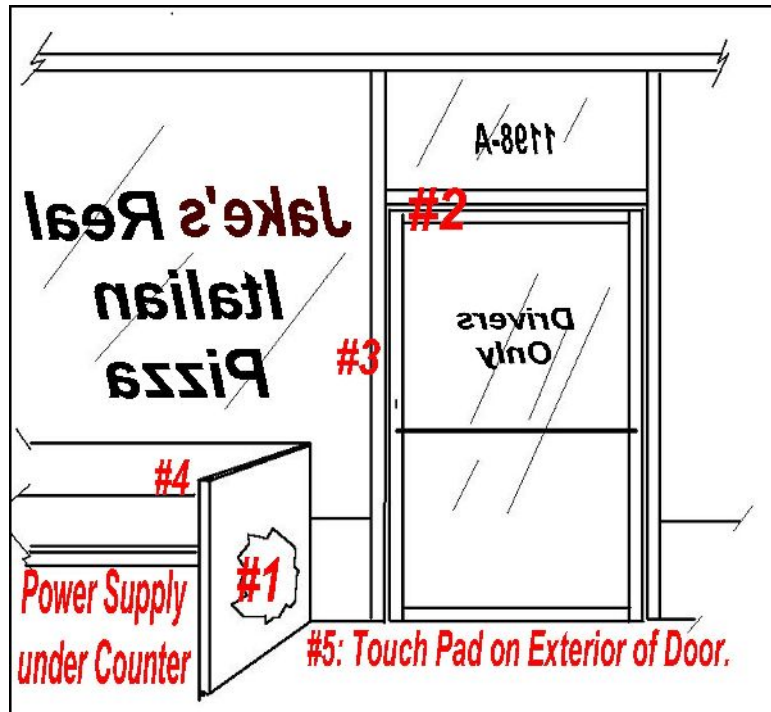
virtually *any* EAC system for a single, or multiple door configurations. Add to that, the fact that the components are virtually foolproof to install, it's a wonder more of us are not jumping into this lucrative market. Well, let's get on with this one.

With the exception of the IEI touch pad and Controller, this installation is even easier than the *Traffic Control* install since all the wiring is relatively localized and there are no wires running into and across the ceiling.

Again, the components in *this* system are wired (except the touch pad and controller) in a series just like the other system (as described in *Basic Electronic Traffic Control*) was. Although I stressed an exception to the touch pad and controller wiring, even that is simple enough. There is a *pigtail* that needs to be wired between the touch pad and the controller unit; in addition to wiring the controller to the power supply. As can be seen in the diagram on the following page, the wiring for those two units is not complicated.

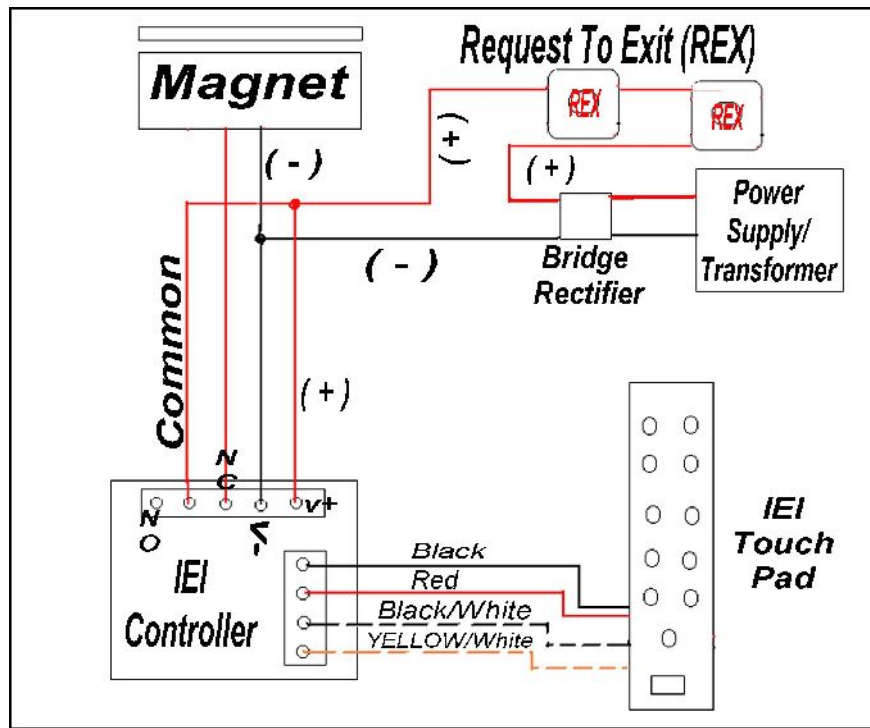
The primary difference between wiring this particular touch pad and magnetic lock will be the way the system is wired (Each manufacturer has their own way of doing it). Some manufacturers make very simple, user-friendly components that require no more than an ability to read and understand the directions. Some manufacturers have slightly more complicated methods of "hookin' up" their components.

Below, there is a drawing that will show the location of the various pieces of hardware. Following that will be a simplified schematic of the wiring configuration for this system.

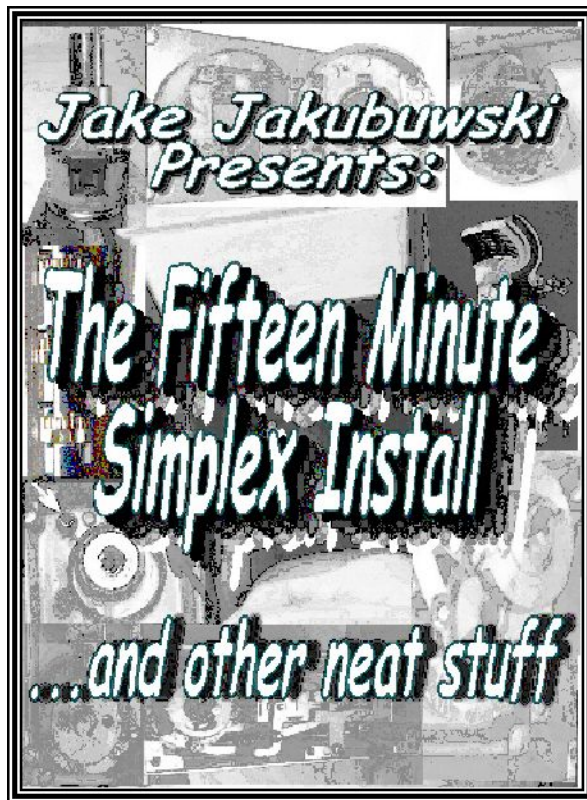


#1 is the power supply (And iEi Controller) which is underneath the work counter. #2 is the magnetic lock hung from the bottom of the transom rail. #3 is the *REX* for the drivers. #4 is the secondary *REX* switch and #5 is the touch pad on the outside stile of the door.

It is always helpful to take a little time before you start your installation to determine exactly where you want your hardware. It also helps to draw a diagram of it to have as a reference.



The diagram below shows all the major components of this system on a pizza parlor's delivery driver's door. It's not only your wiring diagram — it's sort of your electronic, component road map.



“The Fifteen Minute Simplex Install and Other Neat Stuff” opens up an area of service work that many locksmiths dislike. Mainly because they don’t understand it.

The Simplex 1000 and L1000 are two of the most popular push button locks ever to be introduced to the marketplace.

This book shows you how to diagnose problems, service the locks, change the combinations and install one faster than you might have thought possible.

In 153 pages with over 180 photographs and illustrations, I take you step-by-step through many of the less understood service procedures of these locks.

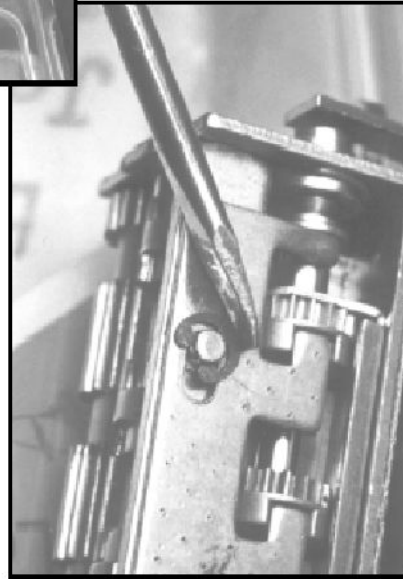
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Photograph #66
(To the left): The slide bar is back in position. Note that the fences, or toes, are all in their respective gates. Also note that the "clutch" is still depressed. However, the wheels cannot yet be turned or a new combination set at this point.

Photograph #67
(To the right): When replacing the "E" clip. Make sure that the clip "snaps" snugly a-round the post.



Otherwise, you will be opening and closing the door the whole time you're on the job-site.

With the lever off of the door and lain flat on your workbench, you can easily see the ends of the retaining clip (See Photograph #1134 below and to the right:

Using a clip removal tool—like the one shown in Photograph # 135 below; you can remove the clip and access the broken coil spring.



With the clip removed, you can now remove the "sleeve" from the

inside lever and access the coil spring. See Photograph # 136 directly to the right:



A word of caution: BE CAREFUL! The spring is under tension and although they generally remove very easily, they can sometimes go flying. Long distances and in unexpected directions.

Chapter Nine:
Replacing An Outside Lever Return Spring:

The difference between changing a Lever Return Spring on an L1000 and the Knob Return Spring on a 1000 series lock is, to my mind, a matter of degree. That is, on one hand, you have less hardware to remove when you're replacing a 1000's Knob Return Spring, but the spring itself is harder to install because of the location of the spring posts and the tension of the spring.

On the other hand, I think that the L1000's spring is easier to install but the hardware you have to remove to get to the point where you can remove the spring is more labor intensive.

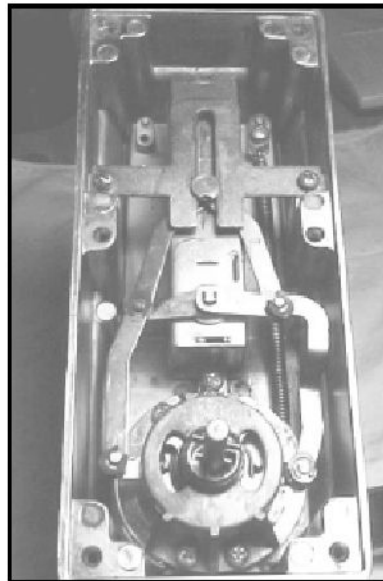
The first thing most first-timers say when they remove the back plate from an L1000 is, "Wow!"

In Photograph # 148, to the right, you can readily see the difference between this L1000 and a 1000!

The double arm-ed clutch assembly and the guide bracket and the heavier clutch cover assembly.

And laying way down inside, on the right of the lock body is the *Outside Lever Return Spring*. So let's see what we have to do to change that spring.

It's obvious that you have to get to it, to change it





The first of a three-volume set, "Total Door Service and Repair: Volume One", takes you right into the depth and breadth of the basics of Total Door Service and Repair.

Two hundred and thirty pages of editorial, photographs, illustration and money-making opportunities that detail how easy it is for the serious hollow metal, wood, composite and FRP door repair technician to seriously shake the shekel tree!

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FOREWORD:

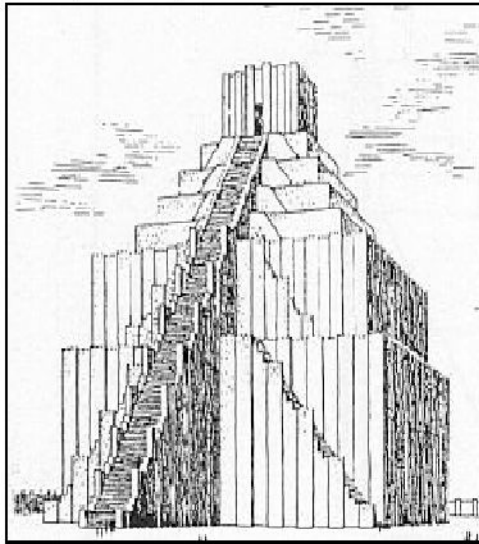
The actual origin of doors is lost in the mists of time and antiquity. We don't know for sure when our ancestors decided to put a barrier up at a cave's entrance, or exactly when the first "door" was fashioned from some very basic materials and used to cover the hole in the wall that allowed the first hut builder/dweller to get into and out of the four walls he had built (With a thatched roof, of course!) to protect himself from the beasts and ghouls that threatened his safety and well-being.

We can only speculate whether or not the cave dweller *really* did roll a stone in front of their cave, as a security measure. We can only assume that other ancestors might have pulled some branches and brambles in front of an overhang of rock that they were sheltering under for the night.

It is generally accepted as fact that the *Egyptian Lock* is probably about 4,000 years old. So — it would be safe to assume that doors had been around for some while before that. It's also probably safe to assume that the locking mechanisms on those doors would have been more simplistic in concept and design than the *Egyptian Lock*.

The notion of doors, or at least the concept of hinged doors, is probably between five and six thousand years old. That is, admittedly, an assumption but probably a fairly accurate one.

Illustration #1, to the right, is a reconstruction of what the Tower of Babel may have looked like. The sketch was done by archaeologist *Axel Moberg* in 1918. At the top of the stairway, a large set of double doors can be seen. Most likely these doors would have been made from olive wood, cedar or other types of local wood; and then sheathed in bronze or iron. The doors would "hinge" on pivots of stone set into a *lintel* (header) and *sill* (Threshold) of stone. Iron, although known to the Sumerians 3,500 years ago, it was used as a decorative metal and was more expensive than gold. In fact, iron was traded in these early times as a precious metal.



The attempt to build the Tower of Babel was probably made in Nippur some five thousand years ago.

The materials from which early doors were constructed depended upon what was most plentiful. I read that in Syria, because trees were scarce, the doors of the temples and government buildings were massive blocks of carved stone, some of which may have been layered in gold and precious jewelry.

The photographs below (next page) show some examples of what those stone doors and pivots may have looked like. Actually, several of items in the photographs shown may have been in use for centuries.

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Introduction:

There are, as with most books, a variety of reasons for the three volumes of Total Door Service and Repair being written. Primarily, I have written, and am writing them because over the years I have written dozens of "How-to" articles on door sales, service and installation and felt that there was a definite need for a specific book dealing with hollow metal, FRP, composite and wood doors.

This trilogy (Sorry about that, if it sounds high falootin') is written with two very specific goals in mind.

One is to teach the locksmith how to quit leaving money lying on the sidewalk when they service a door lock, install a closer or repair a panic device. Two: Is to show the locksmith (and door technician) how to best accomplish the many service tasks that make up "door service" work.

A third goal is ancillary to, and dependent upon the first two: How to make money doing "Total Door Service and Repair" work. Volume One is about the hardware, parts and "stuff" you need to do door service work — with a lot of other information just sort of thrown in. Volume Two will (like Book Two of Aluminum Stile Door Service and Repair) cover actual installations and service procedures. And, Volume Three will be a door service technician's *ultimate resource guide* with charts, illustrations, commentary and a *Where To Get Help* Section that's like no other manual in this field that I'm aware of.

Any one of the three books can, and will, stand alone as a valuable research, resource and reliable reference guide that will help you make more money. The three books together will make an awesome collection of door service and repair information that will be almost encyclopedic. These three books will take you from the very basics of hardware recognition and selection, to the more sophisticated installation and service procedures with hundreds of hardware, hardware installation and task specific photographs and illustrations. This volume alone has more than photographs and charts and illustrations in it to help you learn to earn...

As an example: We, as locksmiths and door technicians, tend to overlook the obvious. That is; we sorta suffer from the "Can't See the Forest for The Trees" syndrome.

A customer calls us and complains that their door is not closing (latching, catching or whatever). We respond, check out the door; note that the door is not latching so we get out our file, and/or Dremel Tool, file a little bit off the bottom edge of the strike and now the door closes *and latches!*

We collect our shekels and go home. Sometimes, we might even feel a little smug about what a quick fifty, sixty or seventy-five bucks we made—just for getting out the file!

Unfortunately: We left *hundreds of dollars* lying on the sidewalk because we did not try to cure the disease—we only treated the symptom!

If we had looked at the **Total Door** we might have noticed that there was a pronounced gap at the top hinge portion of the door. See Photograph #26 to the right.



commands more money!

The hinge is sagging. This causes the latch to hit below the strike's hole and keeps the door from locking. So, the hinge is what needs attention—not the strike. The corrective process might be as simple as using a tool known as "The Hinge Doctor" by GLK products to straighten out the problem (See Photograph #27) to the left.



The *Hinge Doctor* can "cure" about 80% of the door problems you come across, are more professional looking than filing a strike and

Lorenzo Ghiberti's *Gates of Paradise* on the *Baptistry* in Florence, Italy (See Photograph #36 below and to the left) took over twenty-six years (from 1425 to 1452) to complete and the influence of his concepts can be seen in the *Columbus Doors* in the Rotunda of the Capitol Building in Washington, DC (See photograph #37, to the right).

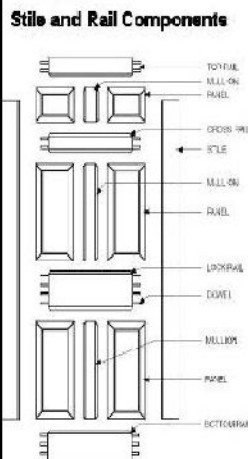


American sculptor, Randolph Rogers, received his commission to execute the *Columbus doors* in 1855.



By the late 1700's door making around the world had moved into a period where the more common doors were made of wood and were generally of a stile and rail construction. Some with flat panels and others with raised panels. A sample of the stile and rail door construction can be seen in Illustration #38,

below and to the left.



Aside from the aesthetics of the stile and rail construction of wooden doors, problems with warping, twisting and sagging were pretty much eliminated. And this door construction method has stood the test time.

By adopting the stile and rail method of door assembly, the doors could be made lighter and more decorative, with less wood being utilized.

The advantages of stile and rail components in doors were far superior to earlier attempts to produce doors that would incorporate the best of progressive engineering concepts—and at the

same time influence even modern door construction. Photograph #39, to the right shows the frame of an FRP door. If you look at it closely you can see the stiles, rails and mid, or lock, rail over which the door's skin will be attached.



The stile and rail concept was so successful a development in the art of door making that it has even carried over into the hollow metal door industry as can be seen in Illustration #40, below (Courtesy Dean

An Overview of Frames:

Door frames, like doors, come in a variety of materials, constructs and finishes.

The most common framing materials are wood, steel and aluminum. In high-security areas specialty frames may be composed of various alloys and blended with composite materials depending of their use and the specifications of the end user or architect.

For the purposes of this book and to try to keep it as simple as possible we will be dealing with steel and wood frames. Much of the nomenclature is the same and the function of even the most esoteric frame is to provide a means of inserting a door in an opening.

Frames may "wrap around" the opening, "butt" against the opening or simply "dress" the opening with no door hung on it. Hollow metal frames come in many styles and are manufactured to provide an almost endless variety of functions. Wood frames, of course are constructed (with the exception of pre-hung doors) on site and according to the plans for the building.

Steel Frames:

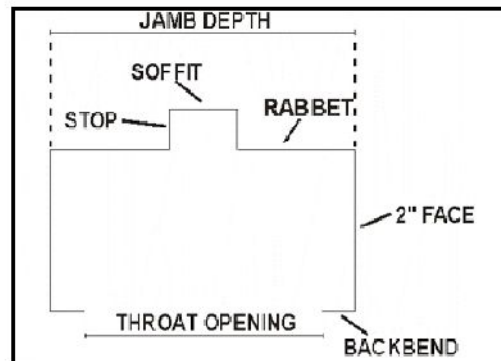


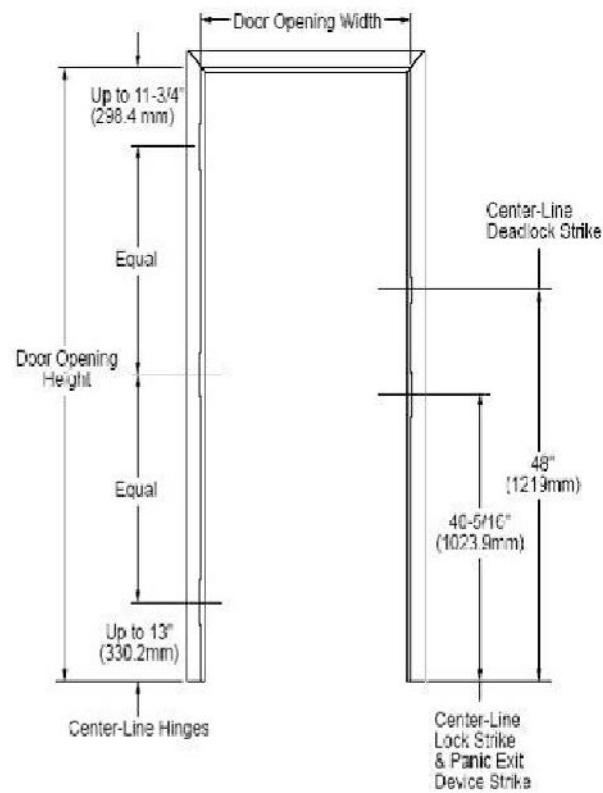
Illustration #79, above shows the general configuration of a metal door frame. That illustration also gives most common the nomenclature for the "parts" of that frame. Keep in mind that such things as the *Throat Opening*, *Back Bend* and *Jamb Depth* as well as the frame face dimensions can vary from manufacturer to manufacturer and that many frame manufacturers make a variety of frames for to accommodate a host of needs.

There is a wide variety of frame styles and frames of varying dimensions including those dimensions for stops and rabbets. There are "adjustable frames" that will fit around different wall thicknesses, and there are different styles of faces and back bends. The commonality of all frames is that they "dress" out the raw opening and offer a means of support for the doors. Although not all openings that have frames have doors in those frames.

Here I'm going to touch on the most common and least esoteric but I will try to give you information about frames, how they attach to the openings they're in and how you can service them when the need arises.

Illustration #80, below indicates the approximate locations for the hardware on a hollow metal door frame. These measurements may vary from manufacturer to manufacturer.

Hardware Locations



Note: Center Hinge Omitted on 6'-8" (2032mm), 1-3/8" (34.5mm) Doors, Unless Specified.

(Courtesy: CECO Doors)

NOTE: On doors that are 6'8" or less, the center hinge is usually omitted unless otherwise specified. The same thing applies to 1-3/8" thick doors. Although 1-3/8" doors were often used as exterior doors many years ago, that is no longer true and the 1-3/8" will usually be found only in the interior of more modern homes and light commercial buildings.

Chapter Two: Hinges

Butt hinges.
Continuous hinges.
Specialty hinges.

Like doors, no one can really say with certainty when or where the first hinges appeared. It is likely that the early door builders simply barricaded the opening by dragging a "door" in place.

Such a *security* measure definitely had its drawbacks; but historically, it was cutting edge stuff!

Certainly, early on, the temples and public buildings—as well as the homes and fortresses of the wealthy used pivots in sockets to open and close the door or gate more easily.

The "socket" in Photograph #109, to the right is from the *Neolithic* era (Or, the New Stone Age) and could be anywhere from 4,000 to 9,000 years old!

The pen laying on the stone with the socket in it will give you some idea of the scale. Since this socket is by what was once a barrier wall, it is most likely that one of the city's gates **pivoted** in this socket.

It is obvious, as mankind began to settle down to domesticate animals and farm, they had need of communities, governance and a religious identity. Consequently, buildings with doors and gates in the surrounding walls necessitated a means of entering those compounds and securing them from the inside.



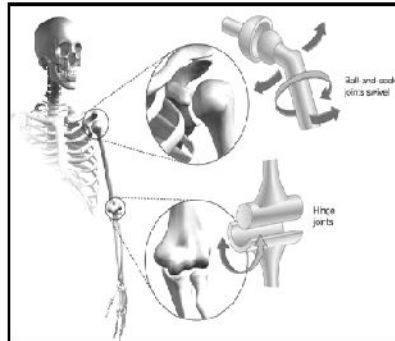
No doubt the first attempts at security had to be some sort of barricade and improvements led to the concept of a "swinging" gate or door. Such a door or gate would be easier and faster to close in the event of an attack or an unwanted visit by the king's mother-in-law.

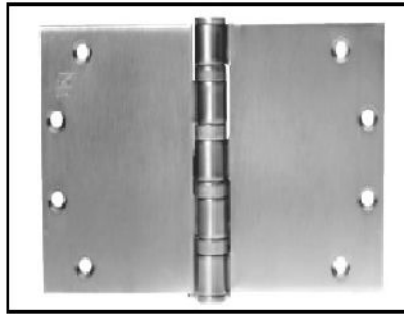
Pivots were probably the first practical types of hinges used by our forebears. For the massive doors found in the temples and public buildings, pivots were the obvious choice for aiding in the movement of those doors.

Anyway, in this chapter, I will be dealing with various types of hinges. I've attempted to categorize the hinges into groups because hinges cover such a broad field that there just is not enough room in this book to deal with all of them.

For instance, I've separated *Pivot Hinges* into its own chapter (**Chapter #3**) because of the broad array of pivot type hinges and the applications of all types of hinges in so many configurations.

This is not a biology lesson, but I'm going to use a biological chart to illustrate the difference between a hinge and a pivot. If you look at the skeletal drawing (Illustration #110) above, right you will notice that two areas have been enlarged.





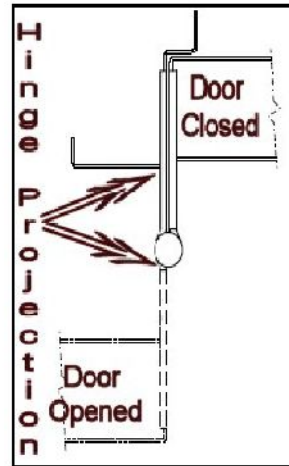
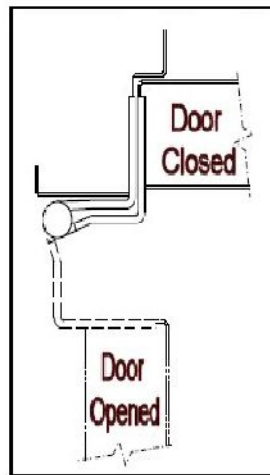
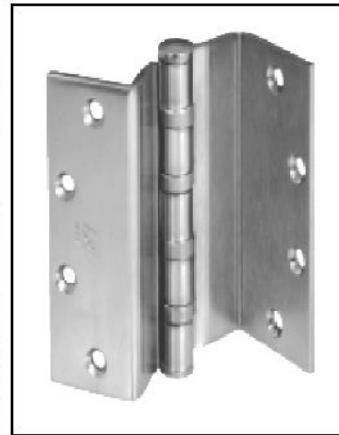
Photograph #120, to the left is a *Four Knuckle, Wide Swing Butt Hinge* and is used in instances where it is necessary for the door to swing completely away from the coening.

The
re is
also

another version of this type of hinge called a *Swing Clear Hinge* which can be seen in Photograph #121, to the right.

Both the *Swing Clear* hinge and the *Wide Swing* hinge can be used in applications where the door is required to open more than 100°.

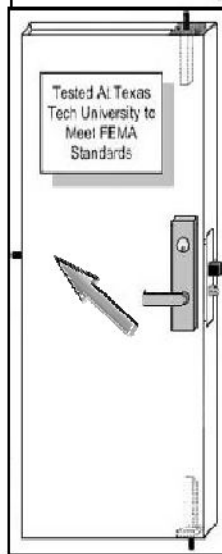
The difference between the two is the projection of the hinge knuckle and pin when the door is closed. If you use the swing clear hinge, the hinge projects only slightly further than a regular butt hinge. Whereas the wide swing hinge projects straight out from the door and good result in injury to personnel and wheeled equipment if employees or equipment were to get too close to the hinge. See Illustration #123, and Illustration #124 below.



The lock on the right is a Sargent 8200 series and like all the other major lock manufacturers, Sargent offers this series in many functions, finishes and styles.



The mortise lock to the left is a classroom function by *Securitech*. Securitech makes a wide variety of mortise locks that have single-point or multi-point locking and are still ADA and Life Safety Code compliant, like the one shown below.



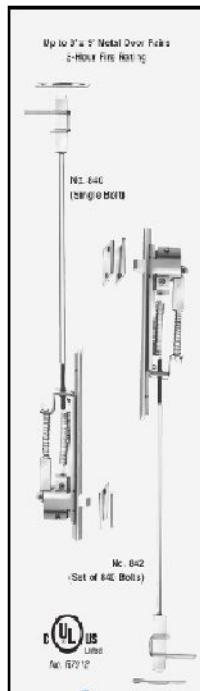
The concealed top and bottom rods of these locks are interconnected to the main lock body and allow immediate egress from the building in the event of an emergency. The diagram to the far left details the rod and lock connectivity.

If you look closely at the left side of the diagram of the door, you will notice a passive bolt on the hinge edge of the door (See arrow). That bolt actually makes this door a **four-point locking door!**

Locks like this are validation of the fact that ***strong, positive and adequate security and Life Safety issues are not incompatible concepts!***



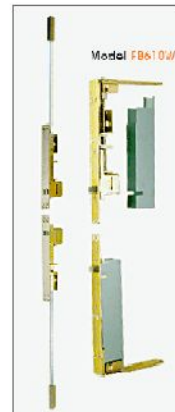
Concealed and/or Automatic Flush Bolts:



Such as the one in Illustration #232, to the left (From Door Controls International) are found on hollow metal, wood and other door constructions.

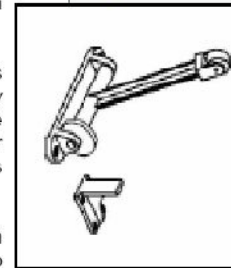
Anywhere a pair of doors is in use (Without a mullion) the doors have to latch when they close. The purpose of the Automatic Flush Bolt is to secure the inactive leaf of the pair. Then as the active leaf closes, it will latch into the secured inactive leaf.

Another example is in the photograph to the right. (Illustration #233) The F8601W is for wood doors and the F8601M is for hollow metal and steel doors.



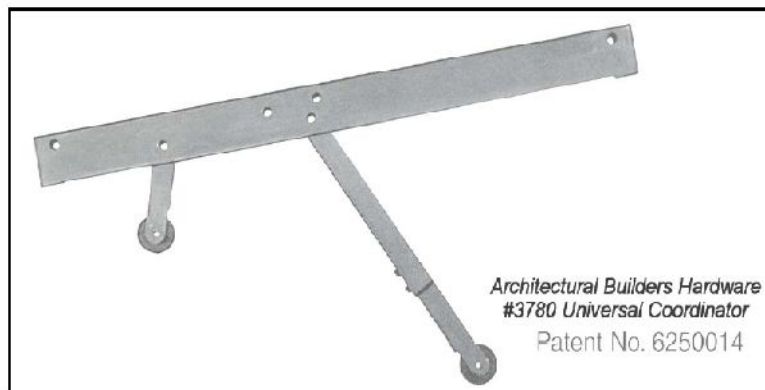
Although neither of the types shown here specify any crossover usage, either one could, or should, work on composite and FRP doors as well.

Since you're dealing with a set of double doors (with closers, etc.); you will need a coordinator on the active leaf of the door. The coordinator allows the inactive leaf to close before the active leaf. The active leaf of the door is the one that will have the lock and an astragal on it. Illustration #234, to the right shows a common type of "drop down" coordinator.

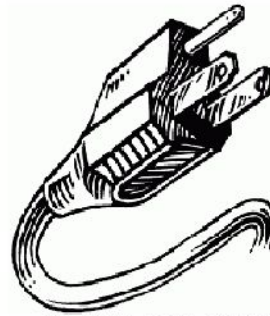
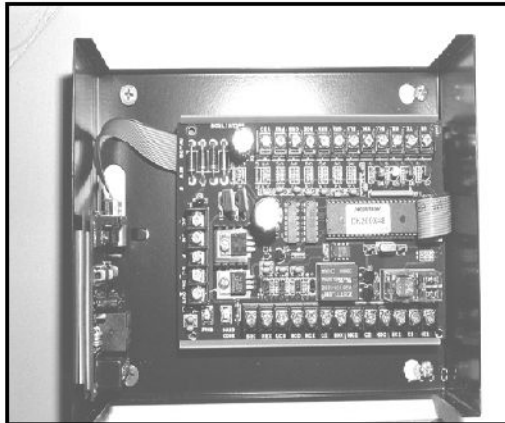


Photograph #235 below (center) shows what is known as a Universal Door Coordinator by Architectural Builders Hardware (ABH). This type of coordinator can be used on doors with, or without an astragal, but should not be on doors with concealed vertical rods or on unequal pairs.

The long arm of the coordinator holds the active leaf of the door open until the inactive leaf hits the shorter arm and then the active door is allowed to close. When the doors are closed, the arms are hidden by *Stop Mounted* aluminum case.



For the most part today's systems are "PLUG AND PLAY". The level of sophistication runs from "Pretty neat" to "Holy Cow!" The main thing to remember is that most all of the engineering has been done and that if you are capable of replacing the plug on your wife's favorite lamp—you can install today's EAC systems. Basically, it's a matter of putting the black wire on the "black" terminal and the red wire on the "red" terminal.



The CPU board (Photograph #274, to the left) from a Securiton DK-26 illustrates that concept. As you can see, the concept is simple and the wiring is virtually self-explanatory. On top of that if you get stuck, companies like Securiton have fantastic technical support departments that can help you sort out any misunderstandings that you may have.

The other thing to keep in mind is that because of tragic events like the Columbine High School Massacre, the attack on the World Trade Center and more recently, the Virginia Tech killings have increased our level of security awareness to unprecedented dimensions. More people in more venues are looking for more security than ever before.

That means EAC, CTV, covert surveillance and passive and active security devices, systems and programs are all in greater demand than ever before.

Locksmiths and door technicians are uniquely positioned to provide those services to enormous numbers of small businesses. Most of us will not sell or specify systems that will control dozens of doors in multiple locations that are controlled by a central computer located five hundred miles away.

We are, for the most part, going to be called on to "do" the onesies and twosies. Those systems where battery operated stand alone locks; and electro-mechanical locks with "readers" or touch pads and electro-magnetic locks and "touch sense" panic hardware will be needed by doctors and lawyers and office buildings and small industrial and institutional users will need.

There are even easy to install, economical, access control systems for the residential market.

In this section of the book we will look at some of the commercial and industrial systems available. In Section Two of this book, we will explore the application and installation of some of those products.

Just remember that what was considered science fiction sixty years ago is reality today. Also keep in mind that the average EAC system on a single door has more computing power in it than was available to the world in 1948! What's really exciting is that you can install and service most of this stuff with a few simple hand tools and a smile!

Yeah; it *really* is that easy!

Electric Strikes:

Electric strikes are simply another facet of Electronic Access Control. The electric strike is the controller for a door or gate and depending on how it's activated, is designed to prevent unauthorized entry to the premises.

The strike may be operated with a touch pad, a reader, swipe card or by the receptionist pushing a button at her desk. Regardless, the electric strike, coupled with cylindrical locksets, mortise locksets and even deadbolt security configurations, establishes a certain degree of security at the entrance to building, medical facility, office or other secure areas.

The locking mechanism is designed to secure the door. The electric strike is designed to allow restricted entry with the door being mechanically locked at all times.

Like all other door hardware there are a plethora of electric strikes available to the locksmith, door tech or maintenance personnel. Determining what is best for a particular application and staying within budgetary constraints can often be cause for consternation, confusion and cussin'. The montage of electric strikes in illustration to the right will give you some idea of the depth and breadth of the selections available.

In this section of this book, I will try to show you how to make your electric strike recommendations, sales, installations and servicing as painless and profitable as possible. Once more, I ask that you keep in mind the material presented is representational and not intended to be an in-depth treatise on electric strikes in general.



Electromechanical locks:

Electro-mechanical locks are nothing more than mechanical locks that have been "wired" to operate electrically by installing a solenoid to operate the bolt or latch of that lock. The wiring is generally connected to a switch controlled by a receptionist or security officer and the power supply is usually mounted somewhere within a few feet of the door.

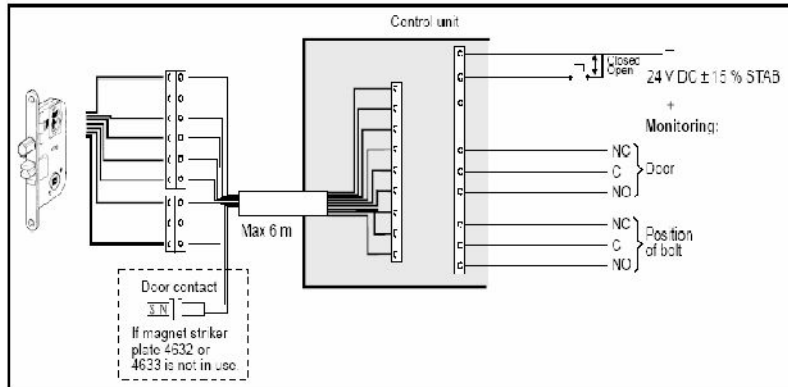
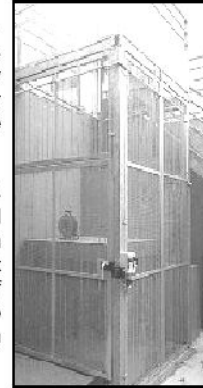
Although generic in concept, each manufacturer of electro-mechanical locks often add security features to their locks and cylinders that give them a stronger competitive edge by offering their potential customers customized features and programs.

Like any "electric" lock, electromechanical locks can be controlled by a variety of switches, touch pads, swipe cards, chips or bio-metrical means.

The following photographs and illustrations will demonstrate the breadth of electro-mechanical locks available from various manufacturers. These locks may be found in any application from the entrance of an educational facility to the safety gate of an industrial elevator (See Illustration #303 to the right).



Photograph #304, to the left is the ABLOY 8154 "Motor Lock" with a deadbolt. The 8154 is a "full mortise" electro-mechanical lock. The wiring diagram below is for the 8154 but can be considered almost typical of the wiring diagram for a broad spectrum of electro-mechanical devices in that it shows the lock, the control unit, the power supply, a monitoring function and door contact.



Let's look at some other manufacturer's offerings on the following pages. These locks are also "typical" of what's available to the EAC technician and cover a wide range of functions, styles and features. As I mentioned before, I cannot, in this book, cover every lock or latching device offered in the marketplace in this but can give you enough information about what is available to give you a good basic understanding of electro-mechanical locks.

Securiton:

Securiton's offering in the stand alone *Electronic Access Control* sandbox is their SABL™. The one thing, in my mind that distinguishes the SABL from all other entries is Securiton's *MAGNACARE*® lifetime warranty.

That warranty is a no-fault, life of the installation warranty that is extraordinary in its scope and superlative in its execution. What am I talking about?

Well, try this on for size:

You sell and install a SABL. It gives up the ghost, or a bad-guy saws (Yes! I said: "Saws") it off the door, or a forklift operator nips in out of its prep or a vandal drives a nail through the touch pad or fills the key override with Crazy Glue. Or, the danged thing is struck by lightening or the flood waters short out the circuits. No matter! It's guaranteed. Period!

Let me carry it one step further. You find a SABL that was improperly installed by someone who thinks a screwdriver is mixed drink and botches the installation. The SABL is **STILL** guaranteed. Not only is it guaranteed but if it's broke, malfunctioning or subject to things that go bump in the night — Securiton will replace it free! Not only that, but they will Red Label you the new one and give you a Call Tag to ship the old one back. Just one of the reasons that I keep beating the Securiton drum.

Anyway, Photograph #357 above is the SABL. Check one out and if you don't believe me about the warranty, call Securiton. Below is some basic pricing information (Pricing current for 2006. Price differentials between manufacturers will be proportionate to model comparison). Illustration to the right gives basic pricing information on SABL. Illustration #358, below, shows the basic pricing for the SABL.

The SABL is, in my opinion, a synergistic melding of two great, heavy-duty products: The Yale 5400 series, Grade 1 cylindrical lever set and Securiton's DK26 pushbutton technology. Both products, again in my opinion, have been thoroughly end-user tested and found to be as dependable as sunshine.

As with any of the other stand alone products offered here, the SABL may not be for everyone but if you're looking for a quick way into the EAC field, it don't get no simpler then this.



SABL	
	\$580 TO \$630 DEPENDING UPON FINISH

Chapter Five: Exit Hardware

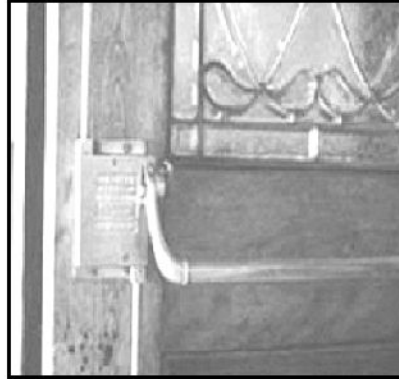
The first practical, workable and accepted panic exit device was one developed in 1908 by a gentleman named Carl Prinzler. Prinzler was scheduled to attend a matinee at the Iroquois theater in Chicago in 1903. He had to forego the show because of a business appointment. That afternoon the theatre caught fire and some 594 fatalities resulted from the fire. The chained, locked and blocked exits and the flammable stage props and curtains all contributed to the horrendous death toll.

It was not uncommon in those days to lock exit doors (Ostensibly, to keep the riff-raff from sneaking into the theatre) in public buildings. Prinzler decided that hardware had to be developed that would secure a door and still let folks exit the building—especially in an emergency.

Prinzler was the sales manager for a company called Vonnegut Hardware and was familiar with door hardware and had a pretty good idea what would be required to produce such a device. His neighbor, Henry DuPont was an architectural engineer.

The first device that DuPont and Prinzler perfected was called a "*Self Releasing Fire and Panic Exit Device*", which they marketed through Vonnegut Hardware.

That first panic/exit device became known as the **Von-Duprin 88!** The name Von Duprin is an acronym of: **V**onnegut Hardware, **C**arl **P**rinzler and **H**enry **D**u Pont. Photograph #364, to the right is a shot of one of the early 88's that was marketed to meet the demands of the fledgling Life Safety codes that were beginning to develop after the fire at the Iroquois Theater. Though the device shown in Photograph # looks rather primitive by today's standards; it answered a specific need and, in 1908, was a fabulous technological innovation!



Prinzler was a trailblazer. He went where no one else had. He saw a need and filled it. His motivation? He "thought there had to be better way" to protect lives and property. Even though panic/exit hardware underwent many changes over the next ninety-nine years, the resemblance between Von Duprin's first "88" series and today's "88" is readily discernable.

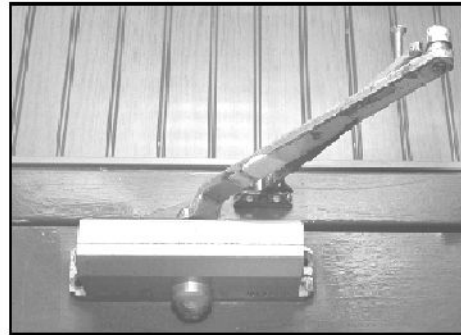
Just a note here: The old crossbar types of panic/exit hardware are on their way out. Dade County, Florida, Orange County, California and the state of Utah have already banned the devices and are requiring the installation of "push pad" type devices. Jackson, Dorma and other manufacturers have already come to market with retrofit packages. It's the crossbar that is at issue since it has been determined that someone could conceivably get their arm caught between the bar and the frame and not be able to operate the bar; thereby blocking the exit.

Photographs #365 and #366 (On the next page) show a Jackson retrofit—before and after.

mounted closer (See Photograph # to the right). If it is wrong, other things will go wrong with the door and the closer will not give the maximum amount of service that would be expected of it. In the photograph below, I'm illustrating that very point. Pay particular attention to the configuration of the closer arm. Photograph # , on the left, shows a properly installed top jamb mounted closer. Take careful note of the position of the arm.



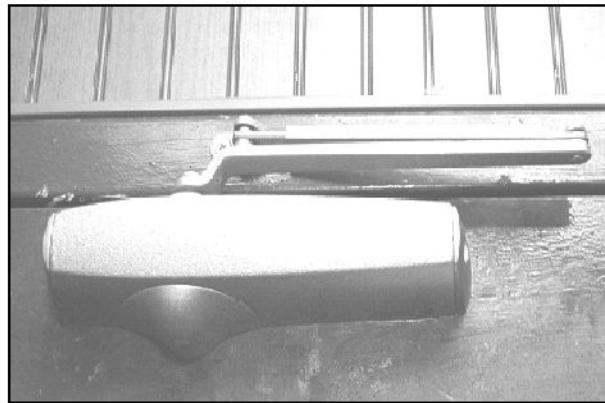
With the closer arm on the left misaligned (this was a new construction project by the way; and the GC had a laborer install the closers). Unnecessary torque will cause damaging pressure to the arm, the top rail of the door and the pivots every time the door is opened and closed. More than likely, the screws holding the arm to the door will be stripped out of their holes in just a few months. Also, the door will frequently "hang" in the partially open position and the closer arm will "buck" every time the door is used.



Photograph #, to the left is another improperly installed closer. The arm and the screws that held the arm in adjustment had been replaced (with improper screws) and the regular arm mount was very irregular as you can see.

The stress created by this install was responsible for bent hinges, a bent door and because the hinge failed, the door was dragging on the top latch side and scraping the paint off the door and frame.

My repair is below. More on repairs and installs in Volume Two.



Photograph # above is LCN's Quest, surface mounted door closer. In my opinion is one of the simplest, fastest and user-friendly closers available to locksmiths and door techs. From where I sit this closer would be absolutely fool-proof if fools were not so danged ingenious when it comes to messin' up even the simplest installation with so little effort.

Chapter Six:

Nuts, Bolts, Screws and Fasteners and Bunches of Other Good Stuff:

From replacing a hinge to “hanging” a door closer, there is nothing more important to the successful conclusion of the job than the type of screw, bolt or fastener that you select to mount that hardware with.

Practically all new door closers, hinges (continuous, butt, surface, mortise and strap hinges), locksets, coordinators, stops, crash chains, panic devices, pulls, thresholds, crash bars, face plates, pivots, floor checks, astragals and weather stripping comes with the necessary hardware to mount the item on the door.

But waiting in the wings are Murphy and Mother Nature who often conspire to make our day less boring by seeing that we get a package of mounting hardware with whatever architectural hardware we’re “hanging” that is short three nuts out of the four that you need, right? Or, it’s raining hard enough to make you consider going in to the ark building business when you drop an important screw. We all know that metal screw won’t float but they do come out of the manufacturing process knowing how to roll! And, we watch that dropped screw as it rolls into the gutter and the water rushing towards the drain helps that little screw roll right out of sight!

Of course, if we’ve had a normal “career, we have learned long ago that if something can go wrong it probably will; we should be prepared to face the challenges presented to us by Murphy and Mother Nature right?

Generally, most of us have a “collection” of nuts, bolts, screws, inserts, sleeves and other fasteners that we’ve picked up along the way and thrown in a box, can, drawer or bin. When a need arises, we sort through bins, buckets, bags and boxes looking for a particular fastener to replace something that’s missing, or required, for the particular job we’re working on.

And that collection of screws, fittings, sex bolts, washers and widgets has surely saved us many a trip to the hardware store or back to the shop to find a grommet nut to finish mounting a closer. Or, an Allen screw to replace the one that rolled under a pizza oven while we were repairing a panic device. Remember how far away from the door that oven was?

But, from where I sit, if you’re going to get serious about *Total Door Service and Repair* you need more than a collection of screws and bolts in a Mason jar or coffee can. You need a selection of specifically designed screws, bolts, nuts and fasteners that will allow you to answer specific needs as they arise.

Let me stress here, before going any further, that although I consider this section fairly complete when it comes to the types, sizes and styles of screws and other fasteners that we need, it does not cover every possible contingency. I’ve developed this list through my personal experience. And, I recommend it highly. There may be redundancies in my list and you may have your favorite fastener that I failed to mention. No problem ... if that fastener works well for you — great. My list and suggestions are put forth strictly to help make you aware of what’s available and what has worked well for me.

So, over the next few pages, in addition to screws and nuts and fasteners, I will show you some of the tools and products I’ve used successfully. I will also show you some pretty neat stuff that has come into the marketplace recently that will be a tremendous aid to anyone doing door service work. Some of the tools that I will highlight may not be absolutely necessary but they are very, very helpful.

Stuff I like the “12/14 Hinge screw from GKL Products (The makers of the famous *Hinge Doctor*). The Dominator®, a neat, compact and economical way of moving and placing wood and hollow metal doors. The Mega Screw Driver (Also from GKL Products) that will allow you to loosen the most stubborn screw on a hinge, lock or door! In other words, stuff that can and will make your job easier. Again, most of the products that I’m going to show you, I have bought, used and like. They’re products that have made me money. They’ll make you money too.

a manual tool.

Pan Head Screws:

SLOTTED

Pan Head

Machine Screws

Tapping Screws

Self Drilling Screws

PHILLIPS

Nominal Size	A		H		H1		J		T		M		G	N	Phillips Driver Size	
	Head Diameter		Height of Head		Recessed		Width of Slot		Depth of Slot		Dimensions of Recess					
			Slotted								Diameter		Depth			Width
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.		Max.
2	.187	.155	.053	.045	.082	.063	.031	.023	.031	.022	.104	.091	.059	.047	1	
3	.193	.160	.060	.051	.071	.062	.035	.027	.036	.025	.112	.099	.068	.059	1	
4	.219	.205	.068	.058	.080	.070	.039	.03	.040	.030	.122	.109	.078	.069	1	
5	.245	.231	.075	.065	.089	.079	.043	.035	.045	.034	.158	.145	.083	.078	2	
6	.270	.256	.082	.072	.097	.087	.048	.039	.050	.037	.166	.153	.091	.088	2	
7	.296	.281	.088	.078	.105	.096	.048	.039	.054	.041	.176	.163	.100	.099	2	
8	.322	.306	.096	.085	.115	.105	.051	.045	.058	.045	.182	.169	.108	.108	2	
10	.370	.357	.110	.099	.133	.122	.060	.050	.068	.053	.199	.186	.121	.121	2	
12	.425	.407	.125	.112	.151	.139	.067	.056	.077	.061	.259	.246	.141	.134	3	
1/4	.492	.470	.144	.130	.175	.162	.075	.061	.087	.070	.281	.263	.161	.156	3	
5/16	.615	.594	.173	.162	.218	.203	.084	.072	.103	.085	.350	.337	.193	.189	4	
3/8	.740	.716	.212	.195	.261	.244	.094	.081	.124	.100	.389	.373	.230	.210	4	

Pan head screws as can be seen in the above illustration (#449) are sometimes called "Button Screws" because of the shape of their head. The important thing to remember when using a pan head screw is that the screw *should not* be used in an application where that calls for an undercut, or countersunk, flat head screw. The pan head screw is *always used where the underside of the head is flat against the surface to which it is applied.*

Further, I recommend that you always use fine thread (AKA "Machine Thread") screws when mounting hardware to hollow metal doors or frames.

Pan head screws come in self-drilling versions and as self-drillers they can be found in "Course (SAE) thread or "Fine" (Machine thread). When you dealing with the skin thicknesses that you are dealing with in hollow metal (and aluminum stile) doors and frames the machine thread offers more thread count in the door itself. Even when you're using self-drilling screws, you should use machine thread as opposed to SAE.

According to UL and Life Safety codes, a screw must have at least three threads in the material to which it is attaching the hardware. With an aluminum stile door, the material is 1/8" so a 10-32 screw should be used as that is the only thread count (32 threads to the inch) that will give you a thread grip of three in an aluminum stile. With hollow metal doors and frames you need either a reinforcing plate in the lock and closer locations, or you have to through bolt or use Nutserts to comply with acceptable installation procedures. The chart on page # gives you the various screw sizes, their SAE and Machine thread count. If you have a 1/4 -20 screw and you're trying to mount a closer to a hollow metal door, the chances are more than midlin' the your head for Call Back City 'cause the screws are not gonna hold the hardware where you

**Here's a preview of "TOTAL DOOR SERVICE AND REPAIR—
VOLUME 2-INSTALLATION PROCEDURES AND REPAIRS". DUE TO
BE RELEASED IN OCTOBER OF 2007.**

Hundreds of pages of repair and installation editorial. Hundreds of installation and repair specific photographs and illustrations. Learn how to repair sagging hinges, install continuous hinges, repair or replace doors and frames.

Learn how the pros do it. Learn how to install and adjust closers. Learn how to install and service panic exit devices.

Learn how to get from here ...



...here



The above photographs courtesy of Jeff Gater of Florida.

Learn how to convert this...



...to this:



Revised Release Date: Winter of 2011!

And how to replace this beat up frame...



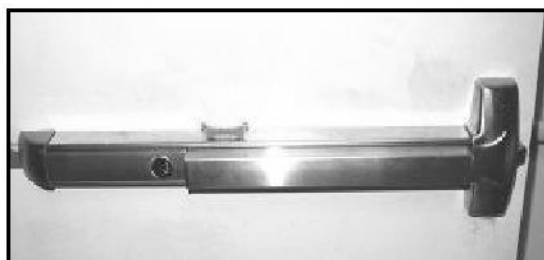
...with this new one



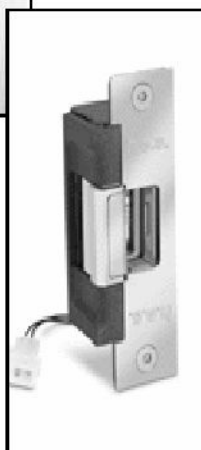
How to install one of these...



...or one of these.



Or, install one of these...



Or how to trouble shoot
one of these.

If it has to do with door
service, this
book will show you
how the experts do it...

These photographs are
only a sampling!

229

Revised Release Date: Winter of 2011

**Here's a preview of "TOTAL DOOR SERVICE AND REPAIR—
VOLUME 3- THE RESOURCE GUIDE". DUE TO BE RELEASED IN
JANUARY OF 2008.**

Volume Three will be a very comprehensive resource on manufacturers, door tips, tricks and information like door material, weight ratios.

You'll learn how to identify a door by the location of its hinges and lockset.

You'll find out where to get the hard to get hardware.

You'll find out where to get help for the tough ones.

You'll find charts and illustrations and photographs by the dozens that will help you diagnose door problems and recommend solutions to your customers.

You'll find glossaries of hollow metal and wood door terminology and nomenclature.

You'll find the complete LIST glossary of lock and hardware terms.

You'll discover how to say four "magic words" to your customers that will get you more business than you ever thought possible.

This book and the earlier volumes contain more lock, door and service information than you've ever seen gathered in one place.

These three books are a veritable cornucopia of door and door service knowledge, procedures and money making ideas...

These books are only the beginning ... you will learn to solve problems, diagnose a door and above all, you will learn to earn.

These books are an investment in your future....

230

Revised Release Date; Early 2012

I hope you enjoyed the tour. I hope you had a laugh, or two. But above all, I hope that I was able to show you another way of doing something easier and faster.

For more information on my books or Pure Jake Learning seminars, contact me at:

Or email me: Jake@purejake.com

Check out all of my books at:
www.purejake.com/books.html